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OCT 08 2009

To: Madeline Maley, A/Regional Executive Director, Southern Interior Forest Region
Bill Warner, Regional Executive Director, Northern Interior Forest Region

From: The Honourable Pat Bell
Minister of Forests and Range and Minister Responsible for Integrated Land
Management Bureau

Re: Amendment No. 9 to the *Interior Appraisal Manual*

I hereby approve Amendment No. 9 to the *Interior Appraisal Manual* and attach a copy for your use. The following sections have been amended:

Section 1.1	Definition for appraisal data submission, has been updated and a new road permit definition has been added.
Section 1.5.1(1) & (2)	Consolidation of comparative cruise data requirements. Section reference to <i>Cruising Manual</i> updated.
Section 1.5.1(5)	Subsection added for comparative cruise without time restriction.
Section 2.2(2)	Section reference updated.
Section 2.2(3)	Redundant text removed.
Section 2.2.1.2(2)(b)	Revised wording to clarify effective dates for changed circumstance reappraisals.
Section 2.2.3	Change to allow insect damage reappraisals twice.
Section 2.3(4)(a)(iii)	Section reference removed.
Section 2.3(4)(e)	Section reference updated.
Table 4-1	Expiry date for points of appraisal added for Okanagan Falls. Boston Bar removed from the table due to expiry.
Section 4.3.2.6	Text added for clarification.
Section 4.3.3(4)	Text added to allow ministry approved competitive bids to be re-estimated once after construction in specific circumstances.



Section 6.2(5)(b)	Text removed and added to Section 1.5.1.
Section 6.2.1(1)(c)(i)	Text added for clarification.
Section 6.2.1(1)(c)(iii)	New subsection added to allow comparative cruise with full appraisal.
Section 6.4(5)	Word "area" added for clarification
Section 6.4(6)	Revised text to match Section 6.4(5).
Section 6.5	Word removed for clarification. Text changed from "and" to "or".
Table 6-4	Text removed for wood chips description. Section reference updated. College of New Caledonia added to the Research Forest list. Area clearing rates updated for 3 districts.
Section 6.7	Mining exploration trail for some districts added to linear tenures.
Section 7.5.1(4) and (5)	Two sections reversed in order to align with ECAS screen section reference.
Appendix VI	Section reference updated.

This amendment will come into force on October 15, 2009. Further amendments or revisions to this manual require my approval.



Pat Bell
Minister

Attachment

pc: Murray Stech, Director, Revenue Branch



Ministry of
Forests
and Range



MANUAL REVISION TRANSMITTAL

<p>FOR FURTHER INFORMATION OR IF YOU HAVE A CHANGE OF ADDRESS, PLEASE CONTACT:</p> <p>Bob Bull Senior Timber Pricing Forester (Interior) Revenue Branch Ministry of Forests 1st Floor, 1520 Blanshard Street Victoria, BC V8W 3K1 Phone: 250-356-7709 Email: Bob.Bull@gov.bc.ca FAX: 250-387-5670</p>	MANUAL TITLE	
	Interior Appraisal Manual	
	AMENDMENT	ISSUE DATE
	Amendment No. 9	October 15, 2009
MANUAL CO-ORDINATOR		
Judy Laton Manuals Co-ordinator		
AUTHORIZATION (Name, Title)		
Murray Stech Director, Revenue Branch		

Please make the following changes to your copy of the above Ministry manual.

ACTION	(VOL.) CHAPTER-SECTION-SUBJECT	PAGE(S)	COMMENTS
(Remove/Insert)	TABLE OF CONTENTS		
Remove	Chapter 1	1 - 10	After Chapter 1 Tab
Insert		1 - 10	
Remove	Chapter 2	3 - 8	After Chapter 2 Tab
Insert		3 - 8	
Remove	Chapter 4	3 - 4 19 -24	After Chapter 4 Tab
Insert		3 - 4 19 -24	
Remove	Chapter 6	5 - 20	After Chapter 6 Tab
Insert		5 - 20	
Remove	Chapter 7	11 - 12	After Chapter 7 Tab
Insert		11 - 12	
Remove	Appendix	13 - 14	After Appendix Tab
Insert		13 - 14	
INSERT	Letter from Minister and Transmittal Sheet		After Amendments Tab

Introduction

1

1.1 Definitions

In this manual:

“**Act**” means *Forest Act*,

“**Agreement**” means a form of agreement granting rights to harvest crown timber referred to in section 12 of the *Act*, or a pulpwood agreement,

“**Applicable Volume**” means:

- a. Except as provided in section 2.2.1(d) and 4.3.1(4)(d), and subject to paragraph (b) of this definition, where the harvesting is authorized on a cutting authority area under an agreement other than a BCTS licence, applicable volume means the total net coniferous volume,
- b. Where the cutting authority or the agreement under which the cutting authority is issued requires harvesting in deciduous stands and the deciduous timber has not been reserved, applicable volume means the sum of the total net coniferous volume and the total net deciduous volume.
- c. Where the harvesting is authorized on a cutting authority area under a BCTS licence, applicable volume means the sum of the total net coniferous volume and the total net deciduous volume.

“**Appraisal Data Submission (ADS)**” means the information required by the person who determines the stumpage rate to determine that rate including the appraisal map, cruise information (including the required reports and the ASCII cruise data files unless otherwise specified by the director of Revenue Branch) and any other information required by the regional manager or district manager, in the form required by the director, **or the Interior Stumpage Rate Request Form**, signed by a registered professional forester (RPF) or registered forest technologist (RFT), registered with the Association of British Columbia Forest Professionals,

“**BCTS**” means British Columbia Timber Sales.

“**Billing history record**” means a record of log scale data derived from a record kept by the Revenue Branch of log scale data reported on stumpage invoices issued by the Revenue Branch for timber scaled under section 94 of the *Act*;

“**BCTS licence**” means:

- a. a timber sale licence entered into under Section 20 of the *Act* or Section 21 of the former *Act*, or
- b. a forestry licence to cut entered into under Section 47.6(3) of the *Act*,

“Bonus Bid” means a bonus bid described in section 103(1)(d) of the *Act*,

“Bonus Offer” means a bonus offer described in section 103(2) of the *Act*,

“Chipped” means having been cut into small pieces by a chipper,

“Coniferous cruise volume” means that part of the total net cruise volume which is coniferous timber,

“Cutting Authority” means:

1. A cutting permit issued under:
 - a. a forest licence,
 - b. a timber sale licence that provides for the issuance of cutting permits,
 - c. a tree farm licence,
 - d. a community forest agreement,
 - e. a woodlot licence,
 - f. a timber licence,
 - g. a community salvage licence,
 - h. a master licence to cut, or
 - i. a forestry licence to cut.
2. A timber sale licence under which cutting permits have not or will not be issued.
3. All other licences to cut.
4. A road permit.

“Cutting Authority Area” means the area where timber may be harvested under a cutting authority, which has a unique timber mark,

“Deciduous timber” means timber that is not of a coniferous species,

“Decked timber” means timber that has been 100% decked at roadside,

“Director” means director of Revenue Branch Ministry of Forests and Range,

“District Manager” means:

- a. Except as provided in paragraph (b) of this definition, the district manager or district manager’s designate.

- b. Where the cutting authority area being appraised or reappraised is located in a controlled recreation area designated under the *Resort Timber Administration Act*, (RTAA) then district manager means an employee of the Ministry of Tourism, Culture and the Arts to whom the minister of that ministry has delegated the minister's powers and duties under section 2 of the RTAA.

“Fully Appraised” means stand data (site specific or borrowed) has been used by the general appraisal system to calculate an indicated stumpage rate or has been included in an appraisal for a BCTS cutting authority including appraisals where the upset rate was set at the variable cost to prepare the timber for sale,

“Hogged” means tree residues or by-products that have been shredded into smaller fragments by mechanical action.

“Licensee” means the holder of a cutting authority,

“Manual” means *Interior Appraisal Manual*,

“Minister” means Minister of Forests and Range,

“Ministry” means Ministry of Forests and Range,

“New Construction” means the following construction phases: subgrade construction, placement of additional stabilizing material and the construction and installation of drainage and other pertinent structures,

“Partially Harvested Timber” means timber that has been felled and/or bucked and not yet forwarded to roadside.

“Prescribed Minimum Stumpage Rate” means the minimum stumpage rate prescribed by the minimum stumpage rate regulation (BC Regulation 354/87).

“Reconstruction and Replacement” means replacement or structural repair of a major drainage structure (e.g., replacing stringers, cross ties, or cribbing), or major resurfacing, which means resurfacing sections of more than 0.3 km in length that were initially surfaced but have deteriorated due to long term wear and tear, where stabilizing material was not previously used, or major reconstruction, which means restoring at least 0.1 km of road (per occurrence) that requires complete rebuilding of the subgrade,

“Regional Manager” means regional executive director or regional executive director's designate,

“Regulations” means regulations under the *Act*,

“Remedial Fences and Wing Fences” means fencing that is required to remedy, reduce or manage the impact of timber harvesting activities on range management,

“Revenue Branch” means the Revenue Branch of the Ministry,

“Road Permit” means road permit or road timber mark,

“**Skidder Swing**” means situations where two of the different harvest methods as listed in section 4.4.1 are required to move timber to an existing road or landing where it can be loaded onto a haul truck. Where skidder swing is included in an appraisal the harvest method that moves the felled timber first is the method that is indicated in the appraisal data submission,

“**Salvage**” except as provided in section 6.4, means a cutting authority area where greater than one-third of the net coniferous cruise volume is attacked by mountain pine beetle or other pests,

“**Species Net Volume**” is the species net volume reported in the appraisal summary report from the cruise compilation for the cutting authority area,

“**Stud Log Percent**” means the net volume of 5 m logs with top diameters under 20 cm expressed as a percentage of the total net cruise volume. The stud log percent is rounded to the nearest whole percentage point,

“**Stumpage Appraisal Parameter**” means:

- | | |
|-----------------------------------|--|
| a. Interior average market price, | e. US Dollar Exchange rate, |
| b. Interior base rate, | f. Lumber and Chip Average Market Values, |
| c. Interior mean value index, | g. Interior Basic Silviculture Costs by Species. |
| d. BC Consumer Price Index, | |

“**Suitable Secondary Structure**” means suitable secondary structure as defined in Section 1(4) of the *Forest Planning and Practices Regulation*.

“**Timber Sales Manager**” means the Timber Sales Manager or the Timber Sales Manager’s designate,

“**Total Net Coniferous Volume**” is the total of the species net volumes for all coniferous species on the cutting authority area,

“**Total Net Cruise Volume**” means the sum of the species net cruise volumes reported in the appraisal summary report from the cruise compilation for the cutting authority area,

“**Total Net Deciduous Volume**” is the total of the species net volumes for all deciduous species on the cutting authority area,

“**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,

1.2 Terms of Reference

1. Pursuant to section 105 of the *Forest Act* the provisions of this manual are policies and procedures to be used in the determination, redetermination and variance of stumpage rates in the Northern Interior Forest Region and in the Southern Interior Forest Region and Manning Park.

1.2.1 Responsibility for Stumpage Determination

1. The following employees of the ministry are authorized to determine, redetermine and vary rates of stumpage:
 - a. regional managers, regional timber pricing co-ordinators, and employees of the regional revenue sections, and
 - b. director and employees of Revenue Branch.

1.5 Appraisal Data Requirements

1. The cruise and all other pertinent information required for the appraisal must be submitted by the licensee or BC Timber Sales with the appraisal data submission to the district manager.
2. Unless otherwise specified by the Director, cruise data must be gathered and compiled according to the approved interior standard timber merchantability specifications in Table 1-1 below and in accordance with the following Ministry publications:
 - a. *Cruising Manual* web site:

<http://www.for.gov.bc.ca/hva/manuals/cruising.htm>
 - b. *Cruise Compilation Manual*.
3. When requested by the district manager, a copy of the original field data must be supplied by the licensee.

Table 1-1 Interior Standard Timber Merchantability Specifications

Description	
The following standard timber merchantability specifications must be used for all appraisals.	
Stumps (Measured on the side of the stump adjacent to the highest ground.)	
no higher than	30.0 cm
Diameter (outside bark) at stump height	
lodgepole pine: all timber that meets or exceeds	15.0 cm
all other species: all timber that meets or exceeds	20.0 cm
Top diameter (inside bark or slab thickness)	
for all species and ages, except cedar older than 141 years, all timber that meets or exceeds	10.0 cm
Top diameter (inside bark or slab thickness)	
for cedar older than 141 years, all timber that meets or exceeds	15.0 cm
Minimum length	
log or slab	3.0 m

1.5.1 Comparative Cruise Data

1. Comparative cruise data is cruise data from an existing cutting authority area **with similar stand and terrain characteristics** that is used in the appraisal of a new cutting authority area.
2. **The district manager may require the selection of a comparable cutting authority to be in accordance with procedures** set out in section 2.10 of the *Cruising Manual*.

3. **Except for subsection (5),** if there is time to perform a full cruise, then the timber will be cruised.
4. If there is insufficient time to perform a full cruise then comparative cruise data may be utilized:
 - a. For cutting authorities with volumes greater than 5 000 m³ if:
 - i. the area is in an approved Emergency Bark Beetle Management Area (EBBMA) as designated by the Minister of Forests and within an approved Emergency Management Unit (EMU) as designated by the beetle management coordinator,
 - ii. the licensee has previously harvested comparative cutting authority's in a timely manner, and
 - iii. the regional manager has determined that the requirement to perform a full operational cruise will delay expeditious harvesting and result in further damage.
 - b. When the stumpage rate is determined according to section 6.2(5).
5. **Comparative cruise data may be utilized when the stumpage rate is determined according to section 6.2.1(1)(c)(ii).**

1.5.2 Appraisal Data Submission

The form as required by the director may be found at:

<http://www.for.gov.bc.ca/hva/ECAS/index.htm>

1.5.3 Appraisal Map

The appraisal map must be completed in accordance with the requirements of Appendix IV.

2.2 Reappraisals

1. Where these policies and procedures require a reappraisal to be performed, the stumpage rate must be redetermined in accordance with the relevant policies and procedures that are or were in effect as the case may be on the effective date of the reappraisal.
2. Except as provided in sections 2.2.1(1)(e), 2.2.2, 2.2.3 and Appendix VI, a reappraisal is based on a complete reassessment of the cutting authority area at the time of the reappraisal, as if the area has been returned to the condition it was in prior to development or harvesting.
3. At the time of a reappraisal, initial detailed engineering cost estimates may be re-estimated once after construction **in accordance with** section 4.3.3.

2.2.1 Changed Circumstances

1. In this section a changed circumstance means a circumstance where:
 - a.
 - (i) The licensee has used or will use a harvest method to harvest at least fifteen percent of the volume of timber in the cutting authority area that is different from the method used in the most recent appraisal or reappraisal of the cutting authority area, and
 - (ii) the different harvest method that has been used or will be used when used in the changed circumstance reappraisal will produce the least cost total harvesting, development, and transportation cost estimate.
 - b. There will be a difference of at least fifteen percent between the total appraised development cost estimate in the changed circumstance reappraisal and the total appraised development cost estimate that was used in the most recent appraisal or reappraisal where the change is caused by circumstances other than a change in the manual or a change as a result of a stumpage adjustment.
 - c. Land containing merchantable timber has been either added to or deleted from the cutting authority area since the most recent cruise compilation or recompilation was used in an appraisal or reappraisal that exceeds the lesser of
 - i. fifteen hectares, or
 - ii. fifteen percent of the area of the cutting authority area as it was prior to the addition or deletion of the land.
 - d. Where the stumpage payable for the cutting authority area is based on a cruise under section 106 of the *Act*, and land containing merchantable timber has been added to or deleted from a cutting authority area that exceeds the lesser of:

- i. five hectares, or
 - ii. five percent of the area of the cutting authority area as it was prior to the addition or deletion of the land.
- e. At least fifteen percent of the volume of the appraised timber in a 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 the *Wildfire Act* or *Wildfire Regulations*.
Notwithstanding subsection 2.2(2), where the cutting authority area is reappraised because of sudden and severe damage the redetermined stumpage rate is based upon the remaining timber only. The reappraisal cost estimate for development takes into account volume of timber already removed from the cutting authority area. This subsection is applicable to cutting authorities with either a non-adjusting (fixed) stumpage rate or a quarterly adjusted stumpage rate.
- f. A cutting permit authorizing the harvesting of timber on the cutting authority area:
 - i. was issued before April 1, 2006, and
 - ii. surrendered on or after April 1, 2006, because of the interior log grade change, and
 - iii. the volume of timber in cutblocks where harvesting has not started (remaining timber) is greater than twenty-five percent (25 %) of the volume of timber that was on the cutting authority area when the cutting permit was issued (the original timber), and
 - iv. the District Manager is satisfied that the remaining timber is significantly different than what has been harvested under the cutting authority.
2. Except as provided in subsections 3 or 4 of this section, where a changed circumstance has occurred with respect to a cutting authority area, other than a cutting authority area that is subject of a road permit or a cutting authority area with a non-adjusting stumpage rate, the cutting authority area must be reappraised in accordance with section 2.2.1.1.
3. Where a licensee has notified the ministry in writing that a changed circumstance has occurred and the indicated stumpage rate for the cutting authority area has been less than $\$0.25/\text{m}^3$ since the cutting authority area was first appraised, and the indicated stumpage rate that would be calculated in a changed circumstance reappraisal would remain less than $\$0.25/\text{m}^3$, a changed circumstance reappraisal is not required.
4. Where a licensee has notified the ministry in writing that a changed circumstance has occurred, log transportation activities have been completed on the cutting authority

area and the amount of stumpage payable as a result of a changed circumstance reappraisal under section 2.2.1.1 would be reduced, the changed circumstance reappraisal must be done only at the licensee's request.

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

2.2.1.1 Changed Circumstance Reappraisal Procedure

1. The licensee must submit to the district manager within thirty days of the completion of log transportation activities on the cutting authority area or thirty days prior to the expiry of the cutting permit whichever comes first, an appraisal data submission if the cutting authority area must be reappraised because of a changed circumstance under section 2.2.1. Thereafter the changed circumstance reappraisal procedure is the same procedure as that required by section 2.1(2) through 2.1(7).
2. Where the district manager believes that a changed circumstance has occurred under subsections (1) or (2) of section 2.2.1, and the licensee fails to provide the district manager with an appraisal data submission as described in subsection (1) of this section, the district manager may initiate a changed circumstance reappraisal using information that is available to the district manager and may notify the licensee of that action. Thereafter the changed circumstance reappraisal procedure is the same procedure as that required by section 2.1(6) through 2.1(7).

2.2.1.2 Effective Date of a Changed Circumstance Reappraisal

1. Except as provided in subsection (2) of this section, a reappraisal because of a changed circumstance is effective on the day after the effective date of the most recent appraisal or reappraisal of the cutting authority area prior to the changed circumstance reappraisal.
2.
 - a. Where the changed circumstance is a result of sudden and severe damage referred to in subsection 2.2.1(1)(e), the effective date of the reappraisal is the first day of the month following the date when the event that caused the sudden and severe damage stopped on the cutting authority area.
 - b. Where the most recent reappraisal prior to the changed circumstance reappraisal is due to insect damage under section 2.2.3, a reappraisal because of a changed circumstance is effective on the day after the effective date of the most recent appraisal or reappraisal of the cutting authority area **that is not a** section 2.2.3 reappraisal.

2.2.2 Minister's Direction

1. The Minister may direct:
 - a. a determination, redetermination or variance of a stumpage rate at any time and that,
 - b. the determined, redetermined or varied stumpage rate be effective on any future date.

2.2.2.1 Minister's Direction Procedure

1. The licensee shall submit to the district manager an interior appraisal data submission, if requested by the district manager within forty-five days of the minister's direction.
2. Thereafter, the procedure for determining, redetermining or varying a stumpage rate under section 2.2.2 shall be the same procedure as that required by subsections 2.1(3) through 2.1(7) except as may otherwise be directed by the minister.

2.2.3 Reappraisals Due to Insect Damage

1. a. A cutting authority with an adjustable stumpage rate may be reappraised on or after April 1, 2006 only **twice** under this section during the term and all extensions of the cutting authority on the basis of a revised appraisal data submission if the licensee submits a revised appraisal data submission to the District Manager.
- b. The revised appraisal data submission is the appraisal data submission that was used in the most recent appraisal or reappraisal of the cutting authority area prior to the revision, hereinafter referred to in this section as the original ADS, with changes permitted only to the cruise data in the original ADS in accordance with the paragraphs (c) and (d) of this subsection.
- c. The licensee may either:
 - i. Update the insect attack code information from the field for each species of timber in the cruise data for codes 1, 2, 3, 5, 6, 7 and 8 as defined in the *Cruising Manual* and recompile the cruise for the cutting authority area by using the cruise data from the cruise in the original ADS for the plots in that part of the cutting authority area where timber has been harvested and combining that with the cruise data with updated insect attack codes for the plots in that part of the cutting authority area where timber has not been harvested, or

- ii. Recompile the cruise data that was in the cruise in the original ADS.
- d. If a cutting authority area is reappraised in accordance with section 2.2.1.1 and the effective date of the changed circumstance reappraisal is prior to a reappraisal for that cutting authority area under section 2.2.3, then cutting authority area shall be reappraised subsequent to the changed circumstance reappraisal using only the same information and effective date as the original reappraisal under section 2.2.3 (except for information that has changed as a result of the changed circumstance reappraisal under section 2.2.1).
- e. Notwithstanding any other paragraph of this section, other data must be changed if it is required by the manual in effect at the time of the reappraisal and was not submitted in the original ADS.

2.2.3.1 Insect Damage Reappraisal Procedure

- 1. The insect damage reappraisal procedure is the procedure required by section 2.1(2) through 2.1(7).

2.2.3.2 Effective Date of an Insect Damage Reappraisal

- 1. The effective date of an insect damage reappraisal is the first day of the month following the month in which the District Manager receives the revised appraisal data submission.

2.3 Stumpage Adjustments

1. Unless otherwise specified in this manual, stumpage rates are adjusted quarterly on January 1, April 1, July 1, and October 1, of each year, subject to section 6.6.
2. Each quarterly stumpage adjustment will be calculated using stumpage appraisal parameters.
3. The adjusted stumpage rates reflect changes in estimated selling prices and lumber recovery factor update add-ons (as authorized in this manual since the previous adjustment), and the recalculated logging and silviculture costs based on the appropriate trend factors shown in section 4.11. The manufacturing costs used in the adjustment will be those authorized in this manual since the previous adjustment. In addition, the adjustment reflects changes in the Interior Average Market Price and the Interior Base Rate and the Interior Mean Value Index.
4. Woodlot Adjustable Stumpage Rates:
 - a. Except as provided in Appendix VI 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 subsection, or
 - (ii) the cutting authority is a road permit, or blanket salvage cutting permit, or
 - (iii) the stumpage rate has been determined under sections 6.1.2, or 6.6.
 - 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 to the regional timber pricing co-ordinator.
 - c. Where the licensee gives written notice to the regional timber pricing co-ordinator of that choice, the adjusting stumpage rate shall become a non-adjusting stumpage rate three (3) weeks after the regional timber pricing co-ordinator 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 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 2.2.1(1)(e) or under section 2.2.2.

2. The point of appraisal that when used in the calculation of the operating cost estimate produces the least cost total development, harvesting and transportation determination of the operating cost estimate unless:
 - a. five years have passed from the date that a milling facility was permanently rendered incapable of producing lumber and chips, and
 - b. it was the only milling facility associated with that point of appraisal.
3. Where a point of appraisal cannot be selected under subsection (2) of this section because of the conditions of paragraphs (a) and (b) of that subsection, the point of appraisal that produces the next lowest total development, harvesting and transportation estimate must be used in the determination of the operating cost estimate in accordance with the requirements of subsection (2) of this section.
4. The process in subsection (3) of this section is continued until a point of appraisal can be selected without being excluded by the conditions of paragraphs (2)(a) and (b).
5. For the purposes of determining the least cost total harvesting, development and transportation estimate, the locations that were used in measurement of cycle time for each point of appraisal in Table 4-1 as of October 1, 2003 will be used.
6. The manufacturing costs and average market values for the selling price zone in Table 4-1 for the least cost point of appraisal selected under paragraphs 2, 3 or 4 must be used in the appraisal.

Table 4-1 Points of Appraisal

Northern Interior (Zone 5, 15, 25 & 35)			
Bear Lake	Fort St. James	Mackenzie	Smithers
Burns Lake	Fraser Lake	Prince George	Strathnaver
Clear Lake	Houston	Quesnel	Vanderhoof
Engen	Isle Pierre		
Skeena (Zone 6, 16, 25 & 36)			
Terrace	Carnaby	Hazelton	Kitwanga

Southern Interior (Zone 7, 17, 25 & 37)				
Adams Lake	Galloway	Merritt	Thrums	
Armstrong	Grand Forks	Midway	Valemount	
Canal Flats	Kamloops	Okanagan Falls	Vavenby	
Canoe	Kelowna	Princeton	Westbank	
Castlegar	Lavington	Radium	Ymir	
Craigellachie	Lumby	Revelstoke		
Creston	McBride	Slocan		
Elko				
South Cariboo (Zone 8, 18, 25 & 38)				
100 Mile House	Chasm	Lytton	Squamish	Williams Lake
Fort Nelson - Peace (Zone 9, 19 & 25)				
Chetwynd	Fort Nelson	Fort St. John		

7. The following Points of Appraisal will expire on the dates indicated: Carnaby (February 24, 2010), Boston Bar (June 30, 2009), Fort Nelson (October 31, 2010), **Okanagan Falls (November 30, 2012).**

For each road, the additional stabilizing material cost estimate (\$/km) is determined from the equation for the appropriate road group.

Road Groups	Equation
1	Refer to section 4.3.3(5)(n)
2	8897
3	$7336 + (1334 * D) + (13331 * QROCK) + (3939 * LT)$
4	11913
5	9121
6	$10631 + (205 * D)$
7	$10631 + (205 * D)$
8	$3153 + (370 * D)$
9	$4375 + (3108 * D)$
10	16630
11	16630
12	16630

Where:

Road groups are defined in Table 4-3.

D = Distance in kilometres from source of ballast to the centre of the section that requires ballast (rounded to the nearest 0.1 km)

LT = 1 if a long term road, otherwise = 0

QROCK = 1 if road is stabilized with quarry rock that requires drilling and blasting. Otherwise QROCK = 0

No cost estimate for additional stabilizing material is allowed for any snow and ice roads.

4.3.2.6 Cattle Guards, Remedial Fences and Pipeline Crossings

1. Where the installation of cattle guards, remedial fences or wing fences are required to mitigate the impacts to range barriers resulting from harvesting on the cutting authority area, the following cost estimates apply:

a.	Cattle Guards	\$5754 each
b.	Remedial Fences and Wing Fences	\$987 per 100 m (post and wire construction only)

2. For pipeline crossings, the following cost estimates apply:

\$3400 single pipe crossing

\$2046 (each) multiple pipe crossing
(where 2 or more pipes are crossed within
the same right-of-way)

3. The cost estimates for subsection (1) and (2) include new or recycled materials, transportation and installation.

4.3.3 Detailed Engineering Cost Estimates

1. Where the tabular cost estimating procedures of this manual cannot be used due to their physical limitations, the cost of a project shall be estimated by preparing a detailed engineering cost estimate. The regional manager may approve standardized procedures to generate cost estimates for use in projects as listed below.
2. Where specific development projects involve detailed engineering cost estimates, the district manager shall be advised of project details no later than 60 days before the start of work on the project.
3. For appraisal purposes, the estimated development project costs are made on the basis of the site-specific data using the definitions found in section 4.3.2.2 for common subgrade construction variables, the culvert costs included in Table 4-4, and the equipment and labour rates specified in Appendix I. Due consideration is given to arm's length competitive bids for any specific project. The appraisal estimate is not constrained in any way by a licensee's actual costs.
4. If the ECE is re-estimated once after construction as provided in section 2.2(3) (using more accurate on site information) the new detailed engineering cost estimate replaces the original (used in the initial appraisal). Detailed engineering cost estimates originally estimated using ministry approved competitive bids may be re-estimated once after construction provided the original call to tender included a methodology for adjusting the bid price based on more accurate site information and

re-estimation of those costs is performed in accordance with that methodology.

ECE's are not re-estimated due to labour and/or equipment rates being updated periodically in Appendix I.

5. Where road sections estimated as a detailed engineered cost estimate are contiguous with tabular cost estimates, costs for mobilization and demobilization will only be allowed for special equipment not required for the construction of the tabular roads. The costs for replacement or addition of stabilizing material must be determined using section 4.3.2.5 unless the material is placed in conjunction with geo fabric, geo grids, corduroy or where the stabilizing material requires processing such as screening or crushing.

The following specific situations are considered for detailed engineering cost estimates:

- a. New construction of long term, primary access road sections, that will have 300 000 cubic metres of harvested crown timber hauled over them annually for at least ten years.
- b. Road construction on uphill side slopes greater than 50 percent.
- c. When rock percent as calculated in section 4.3.2.2(4) is greater than 50 percent, or terrain class 4 and 5.
- d. End haul construction (of roads and landings) requiring removal by truck of excavated material to a separate area to avoid side casting on steep and/or sensitive sites.
- e. Overland construction to provide a roadbed by trucking in material for extensive filling; see page 81 of *Forest Road Engineering Guidebook* for a more detailed description.
- f. For log bridges and non-log bridges (including ice bridges) that are not included in the subgrade cost estimates, eligible costs include site planning and the same phases as listed in section 4.3.2.4(2).
- g. Structural maintenance of bridges, substructure and cribwork.
- h. Reconstruction of roads and pertinent structures. Cost estimates for reconstruction are not to exceed the tabular cost for new construction under similar conditions.
- i. Upgrade of roads and pertinent structures resulting in a change in the standard of the road and structure or where the licensee was not obligated to carry out road maintenance prior to the appraisal. Where road maintenance obligations exist, road upgrade is limited to widening the running surface, vertical and horizontal realignment, and additional culverts.

- j.
 - i. Replacement or addition of stabilizing material to the existing road running surface or where stabilizing material was not previously used, for uninterrupted road lengths of 0.3 km, or greater.
 - ii. Road lengths less than 0.3 km are included in the road management cost estimate.
 - k. Culverts greater than 1.8 m in diameter, or culverts greater than 30 m in length regardless of diameter. The cost estimate includes all costs of transporting the culvert to the jobsite and all costs of installation of the culvert to the final subgrade stage.
 - l. Placement of additional stabilizing material where geo fabric, corduroy, crushed and/or screened rock/gravel are used.
 - m. Retaining walls, railway crossings and other special structures (may include multiple culverts, baffled culverts, arched culverts and other structures determined by the timber pricing co-ordinator).
 - n. Subgrade and ballast cost estimate in road group 1, Kalum District. The subgrade and ballast cost estimate will be determined using the detailed engineering cost methodology specified by the Northern Interior Forest Region.
 - o. The costs of designing and constructing a forwarding road, where the timber pricing co-ordinator is satisfied that it will produce the least cost total development, harvesting and transportation estimate in the appraisal. A forwarding road is not a trail but a road built to a designed standard which includes stripping, grubbing, stumping and primary excavation to establish subgrade that is used for transporting crews and equipment and forwarding timber but not for hauling logs.
6. The data which may be required for excavation and fill estimates are:
- a. Plans, profiles, cross-sections showing the ground and design grade lines.
 - b. Volume summary sheets showing excavation quantities by various soil types, for subgrade and stabilization.
 - c. Type of construction equipment and quantity of material to be used, or ministry approved competitive bid costing.
 - d. Location of borrow and waste areas to calculate material haul distances.
7. The data required for bridges, culverts and for other unusual structures are:

- a. Where the bridge span is 15.4 m or less and the crib height is 5.4 m or less and a permanent structure is proposed, an economic life cycle comparison between a log structure and the permanent proposal is required.
 - b. Where the bridge span is greater than 15.4 m, and/or the crib height is 5.4 m or more and for pipe culverts greater than 1.8 m in diameter or 30 m in length: plans, specifications and design for the proposed structure; detailed estimate of costs of materials; equipment and labour or ministry approved competitive bid pricing; amount of timber accessed by the structure and the number of years of use for harvesting all timber are required.
 - c. Where bridge materials are reused the cost estimate will include dismantling, transportation and reinstallation at the new site, but will exclude initial materials purchased and initial delivery costs.
8. Costs that may be included in the detailed engineered cost estimate are:
- a. Freight (for materials).
 - b. Provincial sales tax (for materials).
 - c. Supervision of construction of complex structures by a professional engineer.
 - d. Bridge certification by a professional engineer (maximum of three field trips) unless otherwise approved by the regional timber pricing co-ordinator (the costs for professional engineers are permitted whether they are on the licensees staff or hired under contract).
 - e. Site plans, designs and layouts.
 - f. Where equipment is not, or will not be already on site for adjoining tabular road, bridge or culvert construction, then the costs of mob and demob may be included in the engineered cost estimate.
9. GST and supervision costs other than as stated above, are not to be included in the engineered estimate.
10. Where different timber volumes are used for separate cost estimates, the unit costs are rounded to the nearest cent before totalling.
11. In some cases, the detailed engineering cost estimates may be apportioned to two or more licensees' tributary cutting authorities, as described under section 4.3.1.1.4.

4.3.3.1 Trending of Detailed Engineering Costs

1. All detailed engineering costs must be adjusted to match the cost base of the manual in effect at the time of the appraisal or reappraisal (refer to Table 4-5). This includes

development costs in apportionment agreements, ministry approved competitive bid tenders, and ECE's prepared using Appendix I.

2. ECE Cost Year means:

- a. For ECEs (or portion(s) thereof) which are calculated using this manual, the ECE Cost Year is 2006.
- b. For ECEs (or portions(s) thereof) which are calculated using tenders, materials costs, design and survey costs, etc. the year the costs are based on or incurred is the ECE Cost Year.
- c. Where all components of an ECE have a common ECE Cost Year, the trend factor can be directly determined from Table 4-5.
- d. For new or re-estimated (section 2.2(3)) ECEs where components of an ECE have different ECE Cost Years, it is necessary to trend all components to the Cost Base Year of the manual in effect at the time (based on the effective date of the cutting authority). The Cost Base Year then becomes the ECE Cost Year for future trending.

Table 4-5 Trend Factors for ECE Costs

ECE Cost Year	Multiply by this Trend Factor to Match the 2006 Cost Base
1995	0.925
1996	0.872
1997	0.811
1998	0.856
1999	0.899
2000	0.879
2001	0.894
2002	0.904
2003	0.978
2004	0.978
2005	1.0
2006	1.0
2007	1.0
2008	1.0

6.2 Cutting Authorities With 5 000 m³ or Less Volume

1. Where the total coniferous volume to be harvested in a cutting authority area is 2 000 m³ or less, and where the agreement under which the cutting authority authorizing harvesting on the cutting authority area has been issued has a coniferous allowable annual cut of not more than 3 000 cubic metres, or no coniferous annual allowable cut:
 - a. The stumpage rate for each species of coniferous timber in the cutting authority area must be determined using the stumpage rate in Table 6-1 for the forest zone in which the cutting authority area is located, except that,
 - b. Where the agreement holder is not required to establish a free growing crop of trees on the cutting authority area, the stumpage rate for each species of timber shall be
 - i. the sum of the rate determined under paragraph (a) of this subsection and the basic silviculture cost for the species in the forest region, or
 - ii. where the Crown has the responsibility for silviculture, the silviculture levy determined under section 5.6.4.
2. Except as provided in subsection 3 of this section, where the total coniferous volume to be harvested on a cutting authority area is 5 000 m³ or less, and the cutting authority authorizing harvesting on the cutting authority area is a competitively awarded forestry licence to cut, other than a BCTS licence:
 - a. Subject to section 5.6.2 and paragraph (d) of this subsection, the upset stumpage rate for each species of coniferous timber in the cutting authority area will be 70 % of the stumpage rate for that species in Table 6-1 for the forest zone in which the cutting authority area is located, except that,
 - b. Where applications for a forestry licence to cut have been invited with upset stumpage rates determined under this subsection and no applications have been received, the upset stumpage rate for each species of coniferous timber shall be the rate requested by the district manager and approved by the regional manager.
 - c. Where the regional manager does not anticipate that applications for a forestry licence to cut will be received due to market conditions or timber profile, the upset stumpage rate for each species of coniferous timber shall be the rate requested by the district manager and approved by the regional manager.
 - d. Where the Crown is responsible for basic silviculture on the cutting authority area, the upset stumpage rate for each species of coniferous timber in the cutting authority area will be the sum of the stumpage rate determined under paragraphs (a), (b) or (c) of this subsection and the basic silviculture levy determined under section 5.6.4.

3. Each upset stumpage rate determined under subsection (2) of this section shall not be less than the district's variable cost per cubic meter to prepare the timber for sale calculated by the district manager.
4. Except as provided in section 2.2.2, where the upset stumpage rate is determined under subsections 1 and 2 of this section, the total stumpage rate is fixed for the term of the cutting authority and all extensions.
5. a. Notwithstanding subsections (1) or (2) of this section, where the total coniferous volume to be harvested on a cutting authority area is 5 000 m³ or less, the stumpage rate may be determined:
 - i. for a cutting authority other than a BCTS licence by an appraisal in accordance with chapters 2, 3, 4, 5, and
 - ii. for a BCTS licence by an appraisal in accordance with chapter 7.
- b. Where the stumpage rate is determined in accordance with this subsection:
 - i. the cruise data that is used in the appraisal may be from the cruise of a comparable cutting authority as per section 1.5.1, and
 - iii. except as provided in sections 2.3(4) and 7.2.1(2) the total stumpage rate is adjustable for the term of the cutting authority and all extensions.

6.2.1 Forestry Licences to Cut for Specific Purposes (No Volume Limit)

1. a. Where the cutting authority is a forestry licence to cut awarded to the highest bidder, other than a BCTS licence and it has been issued:
 - i. For the purpose of protecting a community from wildfire as prescribed under section 1 of the *Forestry Licence to Cut Regulation*, or
 - ii. For the purpose of removing damaged timber from natural stands or plantations where:
 - aa. seventy percent of the timber on the cutting authority area is Pine that has been damaged by mountain pine beetle, and either
 - bb. at the time of death, the age of the damaged timber was not more than 50 years, or
 - cc. a field survey indicates that the average stems per hectare on the cutting authority area is greater than 2 000 with a minimum diameter at breast height of 5 centimeters.
 - iii. For the purpose of utilizing post harvest material in piles on landings or at roadside after a waste assessment has been made.

Then, the upset stumpage rate shall be the rate approved by the Regional Manager.

- b. Where the invitation for applications for a forestry licence to cut awarded to the highest bidder referred to in paragraph (a) of this subsection requires a bonus offer, and the amount of stumpage payable will be based on a cruise instead of a scale of the timber under section 106 of the *Act*, the upset stumpage rate shall be the rate approved by the Regional Manager.
 - c.
 - i. Where the cutting authority is a forestry licence to cut issued for the purpose referred to in paragraph (a)(ii) of this subsection and it is awarded directly to the holder of a Ministry site preparation or site rehabilitation contract that was awarded to the lowest eligible bidder, the **coniferous** sawlog stumpage rate for all timber harvested on the cutting authority area will be \$1.20/m³.
 - ii. Where the cutting authority is a forestry licence to cut awarded directly to the holder of a Ministry site preparation or site rehabilitation contract that was awarded to the lowest eligible bidder, and it does not meet the criteria described in subsection 1(a)(ii) of this section, then the stumpage rate shall be determined using the procedures in chapters 2, 3, 4 and 5.
 - iii. **Where the stumpage rate is determined in accordance with section 1(c)(ii), the cruise data that is used in the appraisal may be from the cruise of a comparable cutting authority as per section 1.5.1.**
 - iv. Notwithstanding paragraphs (i) or (ii) of this subsection, where the timber from the cutting authority in paragraph (i) or (ii) will be chipped or hogged on site the stumpage rate shall be the minimum stumpage rate.
2. An upset stumpage rate determined under this section must be calculated using the *Interior Appraisal Manual* in effect on the date that the rate is determined.
 3. An upset stumpage rate determined under paragraphs (1)(a)(i), 1(a)(ii) or (1)(b) of subsection (1) shall not be less than the district's variable cost to prepare the timber for sale.
 4. Except as provided in subsection 1(c)(i) or (ii) of this section, where the upset stumpage rate or stumpage rate is determined under this section, the rate shall apply to all species and grades of timber.
 5. Except as provided in section 2.2.2, where the upset stumpage rate or stumpage rate is determined under this section, the total stumpage rate is fixed for the term of the cutting authority and all extensions.
 6. Notwithstanding any other subsection of this section, the upset stumpage rate determined under this section shall not be less than the minimum stumpage rate.

6.3 Road Permits

1. In this section the area of a forest district or the area of a timber supply area does not include the area of a park located within that district or timber supply area.
2. Except as provided in subsections (3) and (7) of this section, the stumpage rate for a road permit shall be the weighted average sawlog stumpage rate for:
 - a. all cutting authorities, authorizing harvesting on cutting authority areas that have been fully appraised, that authorize the harvesting of timber in the same forest district in which the road permit cutting authority area is located, and that are issued under the licence that entitles the licensee to apply for the road permit, or
 - b. if the licence permitting the granting of the road permit has an allowable annual cut of 3 000 m³ or more per year, and there are no records from which the weighted average sawlog stumpage rate may be determined under:
 - i. paragraph (a), then, except as provided under subsection (6) of this section, all the cutting authorities, authorizing harvesting on cutting authority areas that have been fully appraised, that authorize the harvesting of timber on land located in the smaller of the area of the same forest district or the area of the same timber supply area in which the road permit cutting authority area is located, or
 - ii. paragraphs (a) or (b)(i), then, except as provided under subsection (6) of this section, all cutting authorities, authorizing harvesting on cutting authority areas that have been fully appraised, that authorize the harvesting of timber on land located in the larger of the area of the same forest district or the area of the same timber supply area in which the road permit cutting authority area is located, or
 - c. if the licence permitting the granting of the road permit has an allowable annual cut of less than 3 000 m³ per year, and there are no records from which the weighted average sawlog stumpage rate may be determined under:
 - i. paragraph (a), then, except as provided under subsection (6) of this section, all cutting authorities authorizing harvesting on cutting authority areas that have been fully appraised, that are for licences that have an allowable annual cut of less than 3 000 m³ in the smaller of the area of the same forest district or the area of the same timber supply area in which the road permit cutting authority area is located, or
 - ii. paragraphs (a) or (c)(i), then, except as provided under subsection (6) of this section, all cutting authorities, authorizing harvesting on cutting authority areas that have been fully appraised, that are for licences that have an allowable annual cut of less than 3 000 m³ in the larger of the area of the same forest district or the area of the same timber supply area in which the road permit cutting authority area is located, or

6.4 Salvage Timber Stumpage Rates

1. This section applies to cutting authorities issued under licences which do not have an allowable annual cut. Salvaged timber is either post harvest material or damaged timber:
2. Post Harvest Material is either:
 - a. wooden culverts and bridges, or
 - b. post logging residue.
3. Damaged Timber is timber that:
 - a. Has been blown down,
 - b. Has been damaged by fire, disease, snow press, or
 - c. Will die within one year, as determined by the district manager, as a result of the affects of the mountain pine beetle, or other forest pests.
4. The criteria and methodology for the calculation of salvaged timber stumpage rates are:
 - a. Post harvest material may not be combined in the same cutting authority area with damaged timber.
 - b. Except where damage to adjacent or contiguous timber occurs after harvesting is completed on the adjacent primary logging cutting permit area and the harvesting equipment has been demobilized from the area, damaged timber salvage cutting authority areas must be scattered, and not be adjacent to or contiguous with an existing cutting authority area.
 - c. Except as provided in subsection (4)(d) of this section the total area of a clearcut salvage harvesting area shall not exceed 5 hectares.
 - d. Where salvage of only damaged stems through partial cutting will leave a stand that meets minimum stocking standards, the area harvested may be larger than 5 hectares.
 - e. Salvage logging stumpage rates may only be determined for a cutting authority where more than one-third of the volume of coniferous timber to be harvested in the cutting authority area is damaged timber.
 - f. Post harvest salvage may only occur after primary logging has been satisfactorily completed and residue and waste assessments have been submitted to and accepted by the Ministry.

- g. Salvage cannot occur on a road right-of-way which has an active timber mark associated with it.
- h. Except as provided in section 2.2.2, a stumpage rate determined under this section is fixed for the term of the cutting authority and all extensions.
5. Where salvaged timber is damaged timber, the sawlog stumpage rate for each species of coniferous timber shall be the rate in Table 6-2 for the Forest Zone in which the cutting authority **area** is located.
6. Where the salvaged timber is post harvest material, the **sawlog** stumpage rate for each species of **coniferous** timber **shall be the rate** in Table 6-3 **for the forest zone in which the cutting authority area is located.**

Table 6-2 Coniferous Average Sawlog Stumpage Rates for Salvage of Damaged Timber by Forest Zone and Species in \$/m³

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	Y. PINE	OTHER
North Central	6.08	-	9.14	6.99	-	6.29	10.04	-	5.69
North East	1.45	-	-	-	-	3.58	4.81	-	2.96
North West	1.29	2.36	-	0.97	-	7.21	6.32	-	1.91
South East	8.96	19.38	12.66	9.56	10.60	9.97	12.73	1.18	8.44
South West	7.42	12.08	8.42	7.56	13.78	7.59	10.67	7.48	6.34

Table 6-3 Coniferous Average Sawlog Stumpage Rates for Salvage of Post Harvest Material by Forest Zone and Species in \$/m³

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	Y. PINE	OTHER
North Central	2.53	-	5.08	2.91	-	4.19	5.58	-	2.37
North East	0.61	-	-	-	-	2.39	2.67	-	1.23
North West	0.54	2.10	-	0.40	-	4.81	3.51	-	0.79
South East	3.73	17.23	7.03	3.98	5.89	6.65	7.07	0.78	3.52
South West	3.09	10.74	4.68	3.15	7.66	5.06	5.93	4.99	2.64

6.5 Decked and Partially Harvested Timber

1. When decked timber only is advertised for sale to the highest bidder, the upset stumpage rate for the timber shall be the total of the silviculture levy determined under section 5.6.4 and:
 - a. The prescribed minimum stumpage rate if the timber has been decked for over three years, or
 - b. Seventy percent of the stumpage rate from Table 6-2 for the applicable species and forest zone if the timber has been decked for three years or less.
2. When decked timber only is sold directly without the use of the competitive bidding process, the stumpage rate for the timber shall be the total of the silviculture levy determined under section 5.6.4 and:
 - a. The variable cost to prepare the timber for sale if the timber has been decked for over three years, or
 - b. The stumpage rate from Table 6-2 for the applicable species and forest zone if the timber has been decked for three years or less.
3. When partially harvested timber only is advertised for sale to the highest bidder the upset stumpage rate for the timber shall be the total of the silviculture levy determined under section 5.6.4 and:
 - a. The prescribed minimum stumpage rate, if three years or more have passed since the timber was felled, or
 - b. Seventy percent of the stumpage rate for the applicable species and forest zone from Table 6-3 if less than three years have passed since the timber was felled.
4. When partially harvested timber only is sold directly without the use of the competitive bidding process, the stumpage rate for the timber shall be the total of the silviculture levy determined under section 5.6.4 and:
 - a. The variable cost to prepare the timber for sale if three years or more have past since the timber was felled, or
 - b. The stumpage rate from Table 6-3 for the applicable species and forest zone if less than three years have passed since the timber was felled.
5. a. Where applications for decked timber or partially harvested timber being sold to the highest bidder have been invited with an upset stumpage rate determined under subsections 1(b), 3(b) or 6(a) of this section and no applications have been received, the upset stumpage rate shall be the rate approved by the Regional Manager.

- b. Where the Regional Manager does not anticipate that applications will be received for decked timber or partially harvested timber being sold to the highest bidder due to market conditions or timber profile, the upset stumpage rate determined under subsections 1(b), 3(b) and 6(a) of this section shall be the rate approved by the Regional Manager.
 - c. An upset stumpage rate determined under paragraphs (a) or (b) of this subsection shall not be less than the District's variable cost to prepare the timber for sale.
 - a. Where applications for a forestry licence to cut that applies to both decked timber and partially harvested timber have been invited, the upset stumpage rate shall be the total of the rate determined using the procedures in subsections (1) of this section, as if the timber was all decked timber and the silviculture levy determined under section 5.6.4.
 - b. Where a forestry licence to cut that applies to both decked timber and partially harvested timber is entered into directly without the use of the competitive bidding process the stumpage rate shall be the total of the rate determined using the procedure in subsection 2 of this section as if the timber was all decked timber and the silviculture levy determined under section 5.6.4.
7. Where the upset stumpage rate or the stumpage rate has been determined using this section the total stumpage rate shall be fixed for the term of the cutting authority and all extensions.
8. An upset stumpage rate calculated under this section must be calculated using the *Interior Appraisal Manual* in effect on the date that the rate is determined (appraisal effective date).
9. Notwithstanding any other paragraph of this section the stumpage rate shall not be less than the minimum stumpage rate.

6.6 Miscellaneous Stumpage Rates

1. Unless otherwise specified in this manual, the stumpage rates, at the time of scale for timber harvested for the purposes described, in the districts listed, in the forest district specific section of Table 6-4 are as prescribed in that table.

Table 6-4 Miscellaneous Stumpage Rates

All Interior Forest Regions

Species	Code ¹	Product	Reserve Stumpage Rate
All Species	SB	Shake & Shingle Bolts, Blocks and Blanks.	\$5.30/m ³
All Species	SK	Shakes	\$6.00/m ³
Cedar	PR	Posts & Rails (Split and Round)	\$3.00/m ³
All other Species	PR	Posts & Rails (Split and Round)	\$1.20/m ³
All Species	MT	Mining Timbers	\$3.00/m ³
All Species	FW	Firewood	\$0.50/m ³
Yew		All	\$0.25/m ³
All Species	CH	Wood chips from post-harvest material where a waste assessment has been made and the material will be chipped-at the roadside or the landing	\$0.25/m ³
All Species	HF	Hogged tree material from post-harvest material where a waste assessment has been made and the material will be hogged at the roadside or the landing.	\$0.25/m ³
All Species		Grades 4 and 6, except where the upset stumpage rate is determined under section 6.2.1(1)(a) and (b) and 7.5.1(7)	\$0.25/m ³
Deciduous Species		All, except grades 4 and 6 and except where the upset stumpage rate is calculated under section 6.2.1(1)(a) and (b) and 7.5.1(4)(b) and (7)	\$0.50/m ³
All Species	SS	Stakes & Sticks.	\$1.20/m ³
All Species	XM	Christmas Tree: under 3m 3-5 m over 5 m	\$0.20/each \$1.00/each \$1.50/each
All Species		Logs salvaged below the high water levels of Reservoir Lakes and the Slocan, Kootenay, Mineral, Babine and Ootsa Lakes	\$0.25/m ³
All Species		Marine Beachcomb	\$0.70/m ³
All Species		Trees classified as "Dead Potential" on Cruise-based cutting authorities, except where the upset stumpage rate is calculated under section 6.2.1 and 7.5.1(7)	\$0.25/m ³
All Coniferous		For logs harvested from the following Research Forests: Alex Fraser (UBC), Aleza Lake (UBC and UNBC), College of New Caledonia (CNC), and Fort St. James (UNBC)	\$0.25/m ³
All Species		Firmwood Reject	NIL

¹ Special Forest Product as identified in section 94(3) of the Act and described in the *Scaling Manual*.

Forest District Specific

Description of Activity	Forest District	Reserve Stumpage Rate
New Crown land area disturbed for mining exploration trails, seismic lines ¹ , gas or oil well sites and right-of-way to well sites. ²	Rocky Mountain	\$2,015/ha
	Peace	\$1,030/ha
	Ft. Nelson	\$773/ha
	Mackenzie	\$1,244/ha

¹ The corresponding district reserve stumpage rate from the above table is adjusted according to the category of line clearing as follows:

Category 1 - no adjustment

Category 2 - 1/2 of the reserve stumpage rate

Category 3 - 1/3 of the reserve stumpage rate

The gross area for each category reported as new line on either; the Oil and Gas Commission's Geophysical Final Plan cover sheet or an As Cleared Plan is multiplied by the reserve stumpage rate as adjusted above (refer to Appendix V for category definitions).

² For pipe line rights-of-way a stumpage rate must be determined by using the above rates for cutting authorities containing 2 000 m³ or less, of merchantable coniferous volume. For pipe line rights-of-way cutting authorities greater than 2 000 m³ see section 6.7.

6.6.1 Miscellaneous Stumpage Rates for Timber Licences

Timber licence cutting authority areas that have not been appraised and have a cutting authority term that began before May 1, 1995, must be appraised effective April 1, 2003.

6.7 Linear Tenures

1. For this section:

“Linear tenures” means a licence to cut issued for:

- A right-of-way to a mine site, or
- A mining exploration trail in a district other than Fort Nelson, Peace, Mackenzie, Rocky Mountain, or
- A pipeline right-of-way where the volume of timber on the cutting authority area is greater than 2 000 cubic metres, or
- A pipeline right-of-way where the volume is 2 000 m³ or less in a district other than Fort Nelson, Peace, Mackenzie, or Rocky Mountain, or
- A hydro transmission line,
- A highway right-of-way for a road administered by the *Ministry of Transportation*, or
- A fence line or protection of a fence line on Crown range administered by the ministry under the *Range Act*.

“Licensee” means the licensee who has been issued a linear tenure.

“Weighted average sawlog stumpage rate” means the weighted average sawlog stumpage rate determined in accordance with section 6.3(4).

2. The stumpage rate for a linear tenure shall be:

- a. The weighted average sawlog stumpage rate for all cutting authorities in the smaller of the same forest district, timber supply area or region in which the entire cutting authority area for the linear tenure is located, or
- b. If a weighted average sawlog stumpage rate is not available for the area in paragraph (a) above, then the weighted average sawlog stumpage rate for the next largest area.

3. The cost of roads constructed on the cutting authority area for a linear tenure are only eligible for inclusion as part of the development cost estimate in the licensee’s first fully appraised tributary cutting authority area if those cost were not used in a full appraisal under paragraph (4) of this section.

4. Notwithstanding any other paragraph in this section the stumpage rate for a linear tenure may be determined through a full appraisal using the best information available to the person who determines the stumpage rate.

5. A stumpage rate determined under this section shall be fixed for the term of the linear tenure and all extensions.

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4. Camp Costs (refer to section 4.8.2)

Cost estimate is \$2.58/m³.

5. Skyline Yarding

Cost estimate is \$6.32/m³ for the volume appraised as skyline.

6. High Development Cost

Where the development cost estimate (DC) determined under chapter 4, is greater than \$3.04/m³ the high development cost specified operations estimate (HDC) is calculated as follows:

$$\text{HDC } \$/\text{m}^3 = \text{DC} - 1.20$$

$$\text{If } \text{DC} \leq 3.04 \text{ HDC} = 0$$

7.5 MPS Stumpage Rate

7.5.1 MPS Upset Stumpage Rate

1. Except as provided in subsections (2), (3), (4), (5), (6) and (7), the MPS upset stumpage rate for a timber sale licence advertised on or after December 2, 2005, shall be determined in accordance with section 7.5.2.
2. Where applications for a timber sale licence with an MPS upset stumpage rate determined in accordance with section 7.5.1(1) have been invited but no applications have been received, the MPS upset stumpage rate shall be the rate approved by the Director of Operations, BC Timber Sales.
3. Where the Director of Operations, BC Timber Sales does not anticipate that applications for a timber sale licence will be received due to market conditions or timber profile the MPS upset stumpage rate shall be the rate approved by the Director of Operations, BC timber sales.
- 4
 - a. The MPS upset stumpage rate for decked timber or partially harvested timber that is over three years old and is administered by BCTS, shall be the prescribed minimum stumpage rate when that is requested by the Timber Sales Manager.
 - b. The MPS upset stumpage rate for decked timber or partially harvested timber that has been decked or felled for three years or less and is administered by BCTS shall be the rate requested by the Timber Sales Manager.
- 5
 - a. Except as provided in paragraph (b) of this subsection, the MPS upset stumpage rate for a timber sale licence where the volume of deciduous timber to be harvested on the cutting authority area is equal to or greater than sixty percent of the total net cruise volume, shall be determined in accordance with section 7.5.2 except that the market price determined under section 7.4.2 shall use $CD = 1$.
 - b. Where an MPS upset stumpage rate for a timber sale licence has been calculated under paragraph (a) of this subsection and
 - i. Applications for the licence have been invited but no applications have been received, or
 - ii. The Director of Operations, BC Timber Sales does not anticipate that application for the licence will be received due to market conditions or timber profile,then the MPS upset stumpage rate shall be the rate approved by the Director of Operations, BC Timber Sales.
6. The MPS upset stumpage rate determined under subsections, (2), (3), (4) (b), (5)(a)(b) and (7) of this section shall not be less than the variable cost to prepare the timber for sale calculated by the Timber Sales Manager.

Appendix VI April 1, 2006 Stumpage Rate Adjustments

1. a. The stumpage rates for a cutting authority will be adjusted on April 1, 2006 in accordance with this subsection if that cutting authority:
 - i. has an effective date prior to April 1, 2006,
 - ii. expires on or after April 1, 2006, and
 - iii. has an adjustable stumpage rate.
 - b. The total stumpage rate for a cutting authority with an adjustable stumpage rate calculated under the Comparative Value Pricing System (CVP), will be redetermined by recalculating the information used in the most recent appraisal or reappraisal of the cutting authority area prior to April 1, 2006 except that:
 - i. the adjusted species manufacturing cost will be determined in accordance with section 4.10.1,
 - ii. the adjusted species manufacturing cost will also be calculated for and be applicable to Lodgepole pine, and
 - iii. the species manufacturing cost used in the recalculation will be the species manufacturing cost that was used in the most recent appraisal or reappraisal.
 - c. i. The total stumpage rate for a cutting authority with an adjustable stumpage rate calculated using the Market Pricing System (MPS) will be redetermined by reappraising the cutting authority effective April 1, 2006, except that the MPS upset stumpage rate used in the reappraisal will be the MPS upset stumpage rate that is calculated in the reappraisal adjusted by the amount in Table A6-2 that applies to that cutting authority.
 - ii. where a cutting authority described in subsection 1(c)(i) of this section is not listed in Table A6-2, the stumpage rate for that cutting authority will be redetermined using the procedure outlined in subsection 1(c)(i) of this section except that the MPS upset stumpage rate used in the reappraisal will be the MPS upset stumpage rate that is calculated in the reappraisal adjusted by an amount that is calculated by Revenue Branch.
2. a. The stumpage rate for a cutting authority will be adjusted on April 1, 2006 in accordance with this subsection if that cutting authority:
 - i. has an effective date prior to April 1, 2006,
 - ii. expires on or after April 1, 2006, and

- iii. has a fixed or non-adjusting stumpage rate.
- b. Where a timber sale licence was advertised for sale prior to December 2, 2005 and expires on or after April 1, 2006, and where the licensee applies in writing to the Timber Sales Manager for the adjustment, the MPS upset stumpage rate may be adjusted in accordance with the following algorithm:

$$MPS\ Upset_{ADJ} = MPS\ Upset_{OLD} - \left(Total\ Rate_{OLD} \left[1 - \frac{grade\ code\ blank\ (m^3)}{grade\ code\ blank\ (m^3) + grade\ 3\ (m^3)} \right]^* \right)$$

$$Total\ Rate_{NEW} = Upset\ Rate_{NEW} + Bonus\ Bid$$

Where:

- Total Stumpage Rate _{NEW} is the new total stumpage rate effective April 1, 2006 and applicable to sawlog of grade code 1 and 2.
- MPS Upset _{NEW} is the greater of the MPS Upset _{ADJ} or the prescribed minimum stumpage rate.
- Bonus Bid is the bonus bid for the TSL prior to April 1, 2006.
- MPS Upset _{ADJ} is the adjusted MPS upset stumpage rate.
- MPS Upset _{OLD} is the MPS Upset Stumpage rate for the TSL prior to April 1, 2006.
- Total Stumpage Rate is the total stumpage rate for the TSL prior to April 1, 2006.

* Using the best information available as determined by the Timber Sales Manager.

- c. Where the stumpage rates for a cutting authority were previously determined using the procedures in chapter 6 or sections 2.3.2.3 or 7.5.1(5) of this manual, or changed to a non-adjusting stumpage rate under section 2.3(5), the reserve stumpage rates for that cutting authority will be adjusted on April 1, 2006 in accordance with the following algorithm:

$$Adjusted\ Reserve\ Stumpage\ Rate = Old\ Reserve\ Stumpage\ Rate - (1 - POA\ GLF) \times Old\ Total\ Stumpage\ Rate$$

Where:

- Old Reserve Stumpage Rate is the reserve stumpage rate for the cutting authority area.
- POA GLF is the green log fraction from Table A6-1 for the point of appraisal for the cutting authority area.
- Old Total Stumpage Rate is the total stumpage rate for the cutting authority area.

- 3. Notwithstanding anything contained in this appendix, a stumpage rate that is determined under this appendix must not be lower than the prescribed minimum stumpage rate.