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To: Interior Executive Directors

From: The Honourable Steve Thomson, Minister of Forests, Lands and Natural Resource Operations

Re: Amendment No. 1 to the *Interior Appraisal Manual (IAM)*

The following sections have been amended:

- Section 1.1 - "Changed Circumstance Certification" definition added.
- Section 2.2.1 - Clarifies the application, use and timing of the Changed Circumstance Certification statement, and adds root disease control activities to timing of certifications.
- Section 2.2.1.1 - Adds root disease control activities.
- Chapter 6 - The coniferous average sawlog stumpage rates have been updated in Tables 6-1, 6-2, 6-4 and 6-5.
- Section 6.1 - Geographical revisions made to the South Central and South West Zones.

This amendment will come into force on November 1, 2014. Copies of the amendment and the amended *IAM* are available at the following link:

<http://www.for.gov.bc.ca/hva/manuals/interior.htm>

Further amendments or revisions to this manual require my approval.

Steve Thomson
Minister

pc: Murray Stech, Director, Timber Pricing Branch
Grant Loeb, Manager Timber Pricing, Timber Pricing Branch
Len Marsh, Forest Revenue Manager, Thompson Okanagan Region
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**MANUAL REVISION
TRANSMITTAL**

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	<i>Interior Appraisal Manual</i>	
	AMENDMENT Amendment No. 1	ISSUE DATE November 1, 2014
	MANUAL CO-ORDINATOR Ashley Sasaki Publication/Administrative Co-ordinator	
AUTHORIZATION Murray Stech Director, Timber Pricing Branch		

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

ACTION (Remove/Insert)	(VOL.) CHAPTER-SECTION-SUBJECT TABLE OF CONTENTS	PAGE(S)	COMMENTS
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Remove Insert	Chapter 2	3-10 13-14	After Chapter 2 Tab
Remove Insert	Chapter 3	13-14 17-20	After Chapter 3 Tab
Remove Insert	Chapter 4	3-4 9-12 17-18 21-32 35-38	After Chapter 4 Tab
Remove Insert	Chapter 6	1-6 11-14 17-18 21-22	After Chapter 6 Tab
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“Changed Circumstance Certification” means, for purposes of Section 2.2.1(1), a Changed Circumstance Certification statement signed by a forest professional;

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

“Comparative Cruise” means cruise data that is used for a new cutting authority area being appraised that comes from another existing cutting authority area with similar stand and terrain characteristics;

“Controlled Recreation Area” means controlled recreation area as defined in the *Resort Timber Administration Act*;

“Cruise Based” means a cutting authority where under section 106 of the *Act* the stumpage payable is calculated using information provided by a cruise of the timber conducted before the timber is cut;

“Cutting Authority” means:

1. A cutting permit issued under:
 - a. a forest licence,
 - b. a timber sale licence that provides for 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,
 - i. a forestry licence to cut, or
 - j. a woodland licence,
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 the cutting authority being appraised, 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 Timber Pricing Branch of the Ministry of Forests, Lands and Natural Resource Operations;

“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*, then district manager means an employee of the Ministry, to whom the Minister has delegated the minister’s powers and duties under section 2 of the *Resort Timber Administration Act*;

“Effective Date” means, unless otherwise specified in the manual:

1. the date the stumpage rate is determined when required for advertising for competitive award,
2. the effective date of the cutting authority when the stumpage rate is determined for a cutting permit or a direct award licence;
3. for the purposes of section 103(3) of the *Forest Act*, in respect of Crown timber that was cut, damaged or destroyed without authorization contrary to section 52(1) of the *Forest and Range Practices Act*, or damaged or destroyed within the meaning of section 27(1)(c) of the *Wildfire Act*, the day immediately preceding the date when the timber was cut, damaged or destroyed; or
4. for the purposes of section 103(3) of the *Forest Act*, in respect of Crown timber that was removed without authorization contrary to section 52(3) of the *Forest and Range Practices Act*, the date when the timber was removed;

“ECAS” means the ministry’s Electronic Commerce Appraisal System;

“Executive Director, BCTS” means Executive Director, BCTS or Executive Director, BCTS’ designate;

“First Fully Appraised Tributary Cutting Authority Area” means the first tributary cutting authority area to have its appraisal submitted by the licensee in ECAS;

“F.O.B.” means ‘free on board’. The specified destination point at which ownership of the goods transfers from the seller to the buyer. ‘F.O.B. origin’ would mean the buyer assumes responsibility for the goods, shipping costs and insurance once the goods leave the seller’s premises;

“Forest Professional” means a Registered Professional Forester (RPF), a Registered Forest Technologist (RFT) or a special permit holder acting within the scope of their permit, registered and in good standing with the Association of British Columbia Forest Professionals;

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

“**GAS**” means the ministry’s General Appraisal System;

“**Harvest Method**” means ground skidding, overhead cable, helicopter or horse;

“**Harvest Method Volume**” means the net merchantable volume reported for the harvest method in the appraisal summary report;

“**Hogged Tree Material**” means tree residues or by-products that have been shredded into smaller fragments by mechanical action;

“**Interior Area**” means the North and South Areas;

“**Licensee**” means the holder of a cutting authority;

“**Manual**” means *Interior Appraisal Manual*;

“**Minister**” means Minister of Forests, Lands and Natural Resource Operations;

“**Ministry**” means Ministry of Forests, Lands and Natural Resource Operations;

“**Net Merchantable Area**” means the net area for all treatment units reported in the appraisal summary report;

“**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;

“**North Area**” means Northeast, Omineca, and Skeena Regions excluding that portion that lies geographically within the North Coast Timber Supply Area;

“**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 or 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 a regional executive director of the Ministry or except for section 1.2.1(1)(b), the regional executive director’s designate;

“Regulations” means regulations under the *Act*;

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

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

“Scale Based” means the stumpage payable is based on a scale of the timber harvested from the cutting authority area in accordance with part 6 of the *Act*;

“Single Unit” means a cutblock has one continuous boundary and it is not made up of two or more pieces separated by timber that is not within the gross area of the cutblock from the cruise compilation;

“Skyline System” means a cable logging system used to fully suspend logs for protection of the soil, for crossing streams without damage, or to yard logs for long distances. Skyline systems may use intermediate supports to reduce the sag in long cables;

“South Area” means Cariboo, Kootenay-Boundary and Thompson-Okanagan Regions;

“Species Net Volume” means the species net merchantable volume reported in the appraisal summary report;

“Stand as a Whole (SAAW) Pricing” means that one stumpage rate is determined for all of the Total Net Coniferous Volume of timber on the cutting authority area. In a cruise based cutting authority, the single stumpage rate applies to the Total Net Cruise Volume;

“Stud Log Percent” means the species 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. BC Consumer Price Index,
- b. US Dollar Exchange rate,
- c. Lumber Average Market Values;

“Timber Harvesting” means the felling or removal of timber other than on road rights-of-way or landings on a cutblock;

“Timber Pricing Branch” means the Timber Pricing Branch of the Ministry;

“Timber Sales Manager” means the Timber Sales Manager or the Timber Sales Manager’s designate;

“Total Net Coniferous Volume” means the sum of all the coniferous species net volumes reported in the appraisal summary report;

“Total Net Cruise Volume” means the sum of all the species net volumes reported in the appraisal summary report;

“Total Net Deciduous Volume” means the sum of all the deciduous species net volumes reported in the appraisal summary report;

“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 Interior Area and Manning Park.

1.2.1 Responsibility for Stumpage Determination

1. The following employees are authorized to determine, redetermine and vary stumpage:
 - a. director and employees of Timber Pricing Branch of the Ministry.
 - b. regional managers, regional timber pricing co-ordinators, and employees of the regional revenue sections of the Ministry.
2. The employees of the Timber Administration section, Resort Development Branch of the Ministry are authorized to determine or redetermine stumpage rates in accordance with section 6.8(1) or (2).

1.2.2 Stumpage Appraisal Parameters

1. The stumpage appraisal parameters are compiled, calculated, and/or adopted by Timber Pricing Branch.
2. Once approved by the director they become an integral part of this manual.
3. The parameters are published by Timber Pricing Branch.
4. Current and historical parameters may be found at the following web site:

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

1.2.3 Minimum Stumpage Rate

A stumpage rate or an upset determined using this manual must not be less than the prescribed minimum stumpage rate.

10. Once Regional revenue staff determines the upset, BCTS will be advised by email from GAS of the upset determination.
11. a. Once Regional revenue staff determines the stumpage rate, Timber Pricing Branch's GAS will advise those licensees who have submitted an email address that the stumpage determination has been made.
- b. The details of the licensee's stumpage determination will be made available in GAS accessed through Timber Pricing Branch's website.

2.2 Reappraisals

1. Where the policies and procedures in this manual require a reappraisal the stumpage rate must be redetermined in accordance with the policies and procedures that are or were in effect as the case may be on the effective date of the reappraisal except for the subsection of section 2.2.1 under which a changed circumstance occurred.
2. Except as otherwise provided in this section, or in sections 2.2.3 or 2.2.2.1, a reappraisal is a complete reassessment of the cutting authority area at the time of the reappraisal by the person who determines the stumpage rate taking into account:
 - a. A revised appraisal data submission submitted by the licensee in accordance with this manual, and/or
 - b. Information available to the person who determines the stumpage rate.
3. A reappraisal may not be used to change the appraisal from a full appraisal to a stumpage rate determined under chapter 6 or vice versa.
4. At the time of a reappraisal, except as directed under section 2.2.2 or 2.2.3, initial detailed engineering cost estimates may be re-estimated once after construction in accordance with section 4.3.3(4).
5. Where a reappraisal under sections 2.2.1.2(2) or 2.2.2 is warranted but there isn't any timber remaining on the cutting authority area to apply the redetermined stumpage rate to, then the reappraisal is redundant and not required.

2.2.1 Changed Circumstances

1. For cutting authorities with an expiry date after September 30, 2014:
 - a. The licensee must submit a Changed Circumstance Certification that a changed circumstance has not occurred on the cutting authority area, according to subsection 2 of this section, since the latest confirmed appraisal or reappraisal that is not a minister's direction or insect damage reappraisal.
 - b. The submission of a Changed Circumstance Certification to the appropriate regional revenue staff must occur:
 - i. no later than 60 days after the cutting authority expiry date; or
 - ii. no later than 60 days after the licensee completes root disease control activities where the appraisal data submission includes a cost estimate for root disease control, provided the activities occur after the cutting authority expiry date.

2. This subsection applies to cutting authorities issued on or after July 2, 2014. For those cutting authorities issued prior to July 2, 2014 use section 2.2.1(1) as it was prior to July 1, 2014.

In this manual a changed circumstance means a circumstance where:

- a.
 - i. the licensee or a contractor working on the licensee's behalf has harvested or will harvest the greater of either 1000 m³ or 10% of the Total Net Cruise Volume of timber on the cutting authority area using a harvest method that is different from the harvest method used in the most recent appraisal or reappraisal of the cutting authority area, and
 - ii. the different harvest method when taken into account in a changed circumstance reappraisal will produce the highest stumpage rate within the meaning of section 3.1.
- b. The licensee or a contractor working on the licensee's behalf carries out or will carry out development on the cutting authority area such that there will be a difference of at least 10% between:
 - i. the total appraised development cost estimate if it is recalculated under chapter 4 on the basis of the development actually carried out, to the extent this development is in accordance with chapter 4, and
 - ii. the total appraised development cost estimate used in the most recent appraisal or reappraisal, where this difference results from circumstances other than a change in the manual or a change as a result of a stumpage adjustment.
- c. Except as provided in subsections 4 or 5 of this section, the cutting authority is scale based and there has been a change¹ in the harvest area for the cutting authority when compared to the appraisal map submitted that exceeds the lesser of:
 - i. 5 hectares, or
 - ii. 5 percent of the harvest area for the cutting authority indicated on the appraisal map prior to the change,
- d.
 - i. The cutting authority is cruise based and there has been a change¹ in the harvest area for the cutting authority when compared to the most recent appraisal map submitted that exceeds three hectares.
 - ii. The area used for cruise based billing must only be changed to reflect the new area when:
 - a. the harvest area has decreased and the cutting authority has been

¹ Measured as the absolute change, e.g. an addition of 5 hectares and the subtraction of 5 different hectares is a 10-hectare change for the purposes of this section.

- amended,
- b. the harvest area has increased, or
 - c. the change in harvest area described in this subsection triggers a changed circumstance under this section.
- e. Timber is authorized for harvest under a cutting authority that has either a fixed stumpage rate or a stumpage rate that is adjusted quarterly and at least 15% of the Total Net Cruise Volume of the timber that was considered in the appraisal of the cutting authority area authorized for harvest under that cutting authority has been suddenly and severely damaged except where timber on a cutting authority area has been damaged by a fire for which the licensee was responsible and the licensee failed to comply with the *Wildfire Act* or *Wildfire Regulations*. The only timber that can be considered in the reappraisal is the standing timber remaining on the cutting authority area after the sudden and severe damage.
- f. A cutting permit authorizing the harvesting of timber was issued before July 1, 2010 and surrendered on or after July 1, 2010, because of the planned Interior pricing policy changes July 1, 2010, and
- i. the volume of all of the timber in all of the cutblocks where harvesting has not started, hereinafter referred to as the remaining timber, is greater than 25% of the volume of timber that was on the cutting authority area when the cutting permit was issued, and
 - ii. the district manager is satisfied that the remaining timber or harvest method is significantly different from the timber that has been harvested under the cutting permit.
- g. A cutting permit authorizing the harvesting of timber on the cutting authority area was issued before July 1, 2010, timber harvesting has started on the cutting authority area, and
- i. the right to harvest timber remaining on the cutting authority area hereinafter referred to as the remaining timber has been transferred by the timber sales manager after July 1, 2010 on behalf of the licensee to whom the cutting permit had been issued, and
 - ii. the district manager is satisfied that the remaining timber or harvest method is significantly different from the timber that was harvested on the cutting authority area prior to the transfer of the right to harvest the remaining timber.
- h. The most recent appraisal or reappraisal:
- i. **included a Camp specified operation and a camp was never used ; or**
 - ii. **did not include a Camp specified operation but a camp was used that met the requirements of this manual.**

- i. The most recent appraisal or reappraisal:
 - i. included a skyline specified operation, or root disease control as part of the tenure obligation adjustment, and a skyline was never used, or root disease control was never carried out on the cutting authority area in an amount that exceeds the greater of three hectares or three percent of the area indicated on the appraisal map; or
 - ii. did not include a skyline specified operation, or root disease control as part of the tenure obligation adjustment but was subsequently carried out by the licensee beyond the threshold in paragraph i. of this subsection that met the requirements of this manual.
3. Except as provided in subsections 4 or 5 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.
4. Except for paragraph (d) of subsection 2 of this section 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.
5. 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(2) would be reduced, the changed circumstance reappraisal must be done only at the licensee's request.
6. Where a cutting authority is reappraised because of a changed circumstance, any bonus bid or bonus offer in existence does not change and remains in effect.

2.2.1.1 Changed Circumstance Reappraisal Procedure

1. Where the cutting authority was issued prior to August 1, 2005, the licensee must submit an appraisal data submission to the district manager immediately if a changed circumstance has occurred.

2. a. Except for a changed circumstance under section 2.2.1(2)(e), the licensee must submit an appraisal data submission to the district manager within:
 - i. 60 days of completion of log transportation activities or no later than 30 days prior to the expiry of the cutting permit whichever comes first; or
 - ii. 60 days after the licensee completes root disease control activities where the appraisal data submission includes a cost estimate for root disease control, provided the activities occur after the cutting authority expiry date,if the cutting authority must be reappraised because of a changed circumstance under section 2.2.1.
 - b. If the change in harvest area referred to under sections 2.2.1(2)(c) and (d) includes a portion of the cutting authority area for which cruise information is not available, the person who determines the stumpage rate may use the best information that person deems available in the reappraisal.
 - c. For a changed circumstance under section 2.2.1(2)(e), the licensee must submit an appraisal data submission to the district manager within thirty days of the date when the event that caused the sudden and severe damage stopped on the cutting authority area.
 - d. Thereafter the changed circumstance procedure for paragraph (a) or (b) of this section is the same as required by sections 2.1(3) to 2.1(11).
3. Where the district manager believes that a changed circumstance has occurred under subsections (2) or (3) of section 2.2.1, and the licensee fails to provide the district manager with an appraisal data submission as described in subsection (2) 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(11).

2.2.1.2 Effective Date of a Changed Circumstance Reappraisal

1. Except as otherwise provided in 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. Where the cutting authority to which the reappraisal pertains was issued prior to August 1, 2005, and the date of the changed circumstance is on or after July 1, 2010, the changed circumstance reappraisal is effective on the day after the date the changed circumstance reappraisal stumpage rate is calculated.
3. Where the changed circumstance is a result of sudden and severe damage referred to in subsection 2.2.1(2)(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.

4. Except as provided in subsection 2 of this section, where the most recent reappraisal is a minister's directed reappraisal under section 2.2.2 or an insect damage reappraisal under section 2.2.3, the effective date of a changed circumstance reappraisal:
 - a. Under section 2.2.1(2)(f) or 2.2.1(2)(g) is the day after the date of the most recent appraisal or reappraisal that is not a reappraisal under sections 2.2.1(5), 2.2.2 or 2.2.3.
 - b. Under any other subsection of this section, is the day after the date of the most recent appraisal or reappraisal that is not a reappraisal under sections 2.2.1(5), 2.2.2 dated after July 1, 2010, or a reappraisal under section 2.2.3.

2.2.2 Minister's Direction

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

2.2.2.1 Minister's Direction Procedure

1. The licensee must 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 must be the same procedure as that required by subsections 2.1(3) through 2.1(11) 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 or a cutting authority issued under a licence entered into under section 21 of the *Act* before it was repealed may be reappraised on or after April 1, 2006 in accordance with this subsection if the licensee submits a revised ADS to the district manager.
 - i. Cutting authorities that have not been reappraised in accordance with this section may be reappraised once on or after July 1, 2014 during the remaining term and all extensions,
 - ii. Cutting authorities that have been reappraised once in accordance with this section prior to July 1, 2014 may be reappraised once on or after July 1, 2014 during the remaining term and all extensions,

- iii. Cutting authorities that have been reappraised twice in accordance with this section prior to July 1, 2014 may not be reappraised in accordance with this section.
- 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. Subject to subsection (1)(d) of this section, update the insect attack and the down tree code information for all the original trees in each plot in the field for codes 1, 2, 3, 5, 6, 7, 8, E and G 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 and down tree 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 the cutting authority area must 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 reappraisal is submitted in ECAS.

- d.
 - i. where the director has determined that a correctable error has been made in the calculation of a quarterly stumpage adjustment, the adjustment must be correctly recalculated, and
 - ii. the effective date of the redetermined rate must be the first day of the month following the date on which the notice of the correctable error was received by the director.

2.5 Redetermination of Stumpage Rate by Agreement

1. If within twenty-one days of the date of determination or redetermination of a stumpage rate (the “original stumpage rate”) the licensee and an employee of the ministry authorized under section 1.2.1 (the “employee”) agree to a redetermination consistent with the version of the manual used for the original stumpage rate, the employee may redetermine the original stumpage rate.
2. The stumpage rate redetermined under subsection (1) must be effective on the same date as the original stumpage rate.
3. The licensee and the employee may agree to extend the twenty-one day period referred to in subsection (1).

- b. Be based on transportation routes that have not been deemed unsuitable by the district manager, and
- c. Be the POA with the lowest transportation and development cost (TRDEV) using the following calculation:

$$\text{TRDEV Cost (\$/m}^3\text{)} = [(1.266 * [\text{CYCLE} + (0.5 * \text{CYCLE_INC6})] - 0.4021 * \text{HWY}) * \text{CPIF}] + [(\text{SO's} + \text{DC}) * (\text{CPI}/138.1)]$$

Where:

CYCLE = the cycle time as defined in section 3.3 and measured in accordance with section 3.5.1.1 and 3.5.1.3.

HWY = as defined in section 3.3.

CPIF = as defined in section 3.3.

SO's = the sum of the transportation specified operations that apply to the transportation route from sections 3.6.1 and 3.6.2.

DC = Total Development Cost in the appraisal.

CPI = as defined in section 3.3.

3. Except as provided in Table 3-3, the selling price zone indicated in Table 3-4 for the point of appraisal determined under this section must be used in the appraisal.

Table 3-4 Points of Appraisal

Northern Interior (Zone 5)			
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)	
Terrace	Kitwanga

Southern Interior (Zone 7)			
Adams Lake	Galloway	Merritt	Thrums
Armstrong	Grand Forks	Midway	Valemount
Canal Flats	Kelowna	Princeton	Vavenby
Canoe	Lavington	Radium	Westbank
Castlegar	Lumby	Revelstoke	Ymir
Craigellachie	McBride	Slocan	
Creston			
Elko			

South Cariboo (Zone 8)				
100 Mile House	Chasm	Lytton	Squamish	Williams Lake

Fort Nelson - Peace (Zone 9)	
Chetwynd	Fort St. John

4. The following Point of Appraisal will expire on the date indicated: Clear Lake (April 30, 2016).

2. Barge/Ferry Used for Truck Haul (Private)

When a truck haul road is interrupted by a body of water and the operation of a barge/ferry system is the most efficient means to provide a transportation link to harvesting areas, the specified operation for this phase, regardless of ownership is:

All lakes = \$4.52/m³

3. Barge/Ferry Not Used for Truck Haul (Private)

When a cutting authority can be served only by water, and daily (operating days only) ferry/barge services are feasible for crew transportation, the specified operation for this phase, regardless of ownership is:

All lakes = \$1.29/m³

3.6.3 Camp Costs

1. A camp specified operation may be included in an appraisal if all of the criteria in this section are met for the cutting authority area being appraised.
2. Workers, who work on the cutting authority area, must reside in the camp and travel each day of work during timber harvesting and hauling operations from the camp to the cutting authority area.
3. The licensee submitting the appraisal must incur the following:
 - a. Costs to establish the camp either through capital expenditure or through long term lease arrangements, and
 - b. Costs to operate and maintain the camp.
4. The camp must:
 - a. Be comprised of buildings or structures of a permanent or semi-permanent nature,
 - b. Have a cookhouse(s) and a bunkhouse(s),
 - c. Have full time camp staff, and
 - d. Be located outside of a support centre listed in Table 3-6.
5. Where two licensees share the costs referred to in paragraph three and four of this section for a single camp:
 - a. There must be a written agreement between the two licensees documenting the cost sharing arrangement and specifying each party's contribution,
 - b. One of the two licensees must not contribute more than 60% of the costs, and
 - c. Each licensee must compile a statement of costs net of recoveries and Total Net Cruise Volume attributable to its harvesting operations serviced by the camp.

6. Where a cutting authority area serviced by a camp:

- a. Rail access only = \$2.62/m³,
- b. Non-rail access remote camp = \$1.93 /m³

“Non-rail access remote camp” is defined as **a camp located greater than:**

- i. **Five (5) hours** loaded one-way log truck haul from a support centre, or
 - ii. **Three (3) hours** loaded one-way log truck haul from a support centre and the primary log haul is to either a log dump for water transportation and/or a rail siding for a rail transportation specified operation.
- c. **Non-rail access all other camps = \$1.11/m³**

Table 3-6 Support Centres

North Area

Burns Lake	Kitwanga	Smithers	Terrace
Houston	New Hazelton	Stewart	Prince George
Kitimat	Fort St. James	Fraser Lake	Fort St. John
Chetwynd	Fort Nelson	Mackenzie	Dawson Creek
Vanderhoof	McBride	Valemount	

South Area

Boston Bar	Kamloops	Merritt	Salmon Arm
Clearwater	Kelowna	Pemberton	Vernon
Hope	Lillooet	Penticton	Nakusp
Canal Flats	Creston	Grand Forks	Nelson
Castlegar	Fernie	Greenwood	Revelstoke
Cranbrook	Golden	Invermere	100 Mile House
Williams Lake		Princeton	Quesnel

3.6.4 Skyline and Intermediate Support Skyline

1. Except as provided in paragraph 4 of this section, a skyline specified operation cost estimate may be included in an appraisal for each cut block where the average yarding distance (slope) is greater than 300 meters, or intermediate supports are used.
2. The average yarding distance is determined by:
 - a. Drawing a series of transects (minimum four) with their origin at a tower landing, being equi-angle apart and measured to the back-line. This is done for each

- block; blocks will not be amalgamated for the purpose of average yarding distance calculation.
- b. Yarding distance will be measured as slope distance from the centre of the tower landing to the falling boundary.
 - c. The sum of transect lengths divided by the number of transects equals the average yarding distance.
3. Where the ministry and the licensee agree that forest and land management is better served by the use of a “skyline system” in a particular logging chance, then the average yarding distance greater than 300 meters requirement is waived.
 4. Cut blocks where the average yarding distance is 600 meters or greater (measured horizontally) will be considered as helicopter in the appraisal.
 5. The specified operation cost estimate is: \$5.92/m³ for the harvest method volume appraised as skyline.

3.6.5 Helicopter Logging

The specified operation cost estimate is \$78.08/m³ for the harvest method volume appraised as Heli.

3.6.6 Horse Logging

The specified operation cost estimate is \$8.67/m³ for the harvest method volume appraised as horse.

3.6.7 High Development Cost

For BCTS timber sale licences only, where the development cost estimate (DC) determined under chapter 4, is greater than \$2.45/m³, the high development cost specified operations estimate (HDC) is calculated as follows:

$$\text{HDC } \$/\text{m}^3 = \text{DC} - 1.17$$

$$\text{If } \text{DC} \leq 2.45, \text{ HDC} = 0$$

3.7 Final Estimated Winning Bid

1. Subject to subsection (3) of this section, the Final Estimated Winning Bid (FEWB) is the difference between the estimated winning bid and the total of the specified operations that are applicable to the appraisal or reappraisal of the cutting authority area.
2. Expressed as an equation:

$$\text{FEWB} = \text{EWB} - (\text{SO} \times (\text{CPI} \div 138.1))$$

Where:

- EWB = The Estimated Winning Bid determined under section 3.4.
- SO = The sum of the applicable specified operations in the appraisal or a reappraisal of a cutting authority area as may be calculated under section 3.6 expressed in \$/m³.
- CPI = Monthly BC Consumer Price Index (refer to section 3.3).
3. Where the FEWB calculated under subsection 2 of this section is less than \$0.25/m³, then the FEWB must be \$0.25/m³.

4.2 Administration Costs

4.2.1 Forest Management Administration (FMA)

Forest management administration costs are those costs directly related to supervision and administration of the activities listed below:

- Office Operations,
- Cruising,
- Environmental Protection,
- Consultants fees (section 4.3.3),
- Archaeological surveys,
- Right-of-way easements,
- Foreshore and other land leases,
- Tree marking Beetle probing & Pheromone baiting,
- Engineering (road layout, survey including geotechnical surveys, and design, other than those applicable as engineered cost estimate).
- Suitable Secondary Stand Structure Survey.

The forest management administration cost estimate in an appraisal is determined as follows:

$$\text{FMA } (\$/\text{m}^3) = 0.8257 + (0.1808 * \text{CP slope } \%)$$

Where:

CP Slope % - is the cutting permit average slope from the Cruise Appraisal Summary Report.

If the equation yields less than \$1.36/m³ then use \$1.36/m³. If the equation yields more than \$13.02/m³ then use \$13.02/m³.

4.2.2 Final Forest Management Administration (FFMA)

1. For cruise based cutting authorities:

$$\text{FFMA } (\$/\text{m}^3) = \text{FMA } (\$/\text{m}^3)$$

2. For scale based cutting authorities:

$$\text{FFMA } (\$/\text{m}^3) = \text{FMA } (\$/\text{m}^3) * \frac{[\text{TNCV } (\text{m}^3) + \text{D}(\text{m}^3)]}{\text{TNCV}(\text{m}^3)}$$

Where:

TNCV = Total Net Coniferous Volume

D = Total Net Deciduous Volume

4.3 Development

1. The total development cost estimate in an appraisal or reappraisal must be determined in accordance with and subject to the conditions of this section.
2. There are two categories of development, namely:
 - a. New construction projects.
 - b. Reconstruction or replacement projects.
3. A development cost estimate that may be calculated under this section is calculated for each road, bridge or other drainage structure that is required to be newly constructed, reconstructed or replaced by the licensee on Crown land, or as provided in section 4.3.1.2, in order for the licensee to access Crown timber that it is authorized to harvest.
4. The total development cost estimate is the total of all of the development cost estimates that are calculated under subsection 3 in accordance with the procedures in the document titled “*Specifications: the Interior Market Pricing System.*”
5. The two methods of estimating development costs are as follows:
 - a. Tabular cost estimate: A tabular cost estimate is made in accordance with sections 4.3.2 through 4.3.2.6 when the project is a new construction project, other than a situation listed in section 4.3.3(7).
 - b. Detailed engineering cost estimate (ECE): an ECE is made in accordance with sections 4.3.3 and 4.3.3.1 when:
 - i. a new construction project is a situation listed in section 4.3.3(7), or,
 - ii. the project is a reconstruction or replacement project.
6. Subject to section 4.3.1.4 and to subsection 12 of this section, the development cost estimate of a project, or the licensee’s share of the cost of a project, that has been authorized may only be used in the appraisal or reappraisal of the licensee’s first fully appraised tributary cutting authority area that is authorized for harvest by the licence under which or because of which that authorization has been given.
7. A development cost allocation made in accordance with section 4.3.1 applies to all development cost estimates made under this section.

necessitated by a changed circumstance reappraisal as authorized under paragraph (k) of this section.

- d. Costs for in-block development are not eligible for inclusion in the agreement unless the person who determines the stumpage rate is satisfied that they are required to access future tributary timber.
 - e. The road portion that may be included in the agreement ends at the far boundary of the first cutting authority being appraised.
 - f. The agreement is entered into only for the purposes of determining a stumpage rate and confers no obligation on the Crown to compensate the licensee for any unamortized costs.
 - g. The agreement must be signed by the licensee and the regional manager, and must not be for a term, including extensions, longer than ten years unless otherwise approved by the regional manager.
 - h. The regional manager and licensee may not amend the agreement to adjust the total amount apportioned or, consequentially, any part amount apportioned to a tributary cutting authority, except as authorized under this subsection.
 - i. The apportionment specified in the agreement under this section may be adjusted once during the total term of the agreement, provided the adjustment is between or among only those tributary cutting authorities included in the agreement that have not yet been issued at the time of the adjustment.
 - j. One additional tributary cutting authority that was not previously identified in the agreement may be added once during the total term of the agreement.
 - k. In the event of a changed circumstance reappraisal of the first cutting authority, the amounts specified in the agreement must be amended to reflect proportionately the new total amount of the apportioned development cost estimate as determined in the changed circumstance reappraisal among only those cutting authorities included in the agreement that have not yet been issued as of the effective date of the changed circumstance reappraisal.
3. The regional manager will not enter into any new extended road amortization agreements for cutting permits issued under a woodlot licence with an effective date after November 30, 2008.

4.3.2 Tabular Cost Estimates

Tabular costs are determined using the procedures and criteria in this section for the total length of road that the submitting professional certifies is required to remove the timber from the cutting authority area.

4.3.2.1 Subgrade Construction

The subgrade construction cost estimate includes:

- a. clearing,
- b. grubbing,
- c. stripping,
- d. debris disposal,
- e. stump removal,
- f. ditch construction,
- g. turnout construction (not landings),
- h. material costs, and
- i. installation of culverts with diameters under 950 mm or the equivalent cross-section area or single log abutment culverts up to 3.4 m span.

Right-of-way felling and logging is excluded.

4.3.2.2 Subgrade Construction Variables

For appraisal purposes the following subgrade construction variables are recognized:

1. Section length: (L)
 - a. Each section should be representative of a single moisture class. Section lengths are recorded to the nearest 0.1 km. Each section should be 1 km or longer, although some individual section lengths less than 1 km but greater than or equal to 0.100 km are acceptable for extreme variations of slope or % rock. The section length includes that portion traversing through landings.
 - b. All road segments less than 0.100 km, are to be aggregated with other adjacent road segments, making appropriate adjustments to average site conditions using the distance-weighted averages for the site variables for that section.
 - c. A short spur road less than 0.100 km may be aggregated with a similar stand-alone non-adjacent road section.
2. Road Types :
 - a. Long Term (LT) - A long term road is a road with a continuous raised sub-grade and ditch line (the raised sub-grade and ditch line may be interrupted for short section <100 m in length (e.g., when crossing a short section of rock or at the crest of a hill). In flat terrain the ditch line may simply be the depression created when sub-grade material is excavated to create a raised sub-grade.
 - b. Short Term (S) - A short term road is a road with the stumps removed and a bladed running surface. There may be elements of ditching and elevated grade, particularly around wet areas but these features are not continuous.

- c. **Snow/Ice Road:** - A snow/ice road is a single lane seasonal winter road including turnouts, with a flat road profile that is built with a combination of snow, ice and dirt, on a surface that may or may not have been stumped. The driving surface is built up using multiple layers of snow and ice such that extra stabilizing material costs are not applicable. A flat road profile means the side slope is less than or equal to 15% and there is minimal side cut. Minimal means that cuts into mineral or organic soil must not exceed 0.5 m in depth for distances up to 0.1 km. Seismic lines being used for roads, that have not previously been used as roads, will be considered as new construction and qualify as snow/ice roads provided they fall within the above criteria.

3. Uphill Side Slope: (SLOPE %)

Uphill side slope % may show a variation of (+/- 15% about the average) within any section length and represents the average of all slopes in the section to a maximum of 50%. To derive an average for uphill side slope %, several representative cross-section measurements are taken along the section length and the sum of one-half of the distance on each side of the measurement is applied as a weight against the measurement at that cross-section. The uphill side slope % is measured at right angles to the road centreline and is recorded to the nearest integer. Where the road is located on a bench, the uphill side slope of the bench is used.

4. Percent Rock: (ROCK %)

Rock includes bedrock and large boulders (each greater than 1.5m in diameter). It may be rippable or may require drilling and blasting. Rock % may show a variation (+/- 15% about the average) within any section length and represents the average of all rock % in the section to a maximum of 50%. To derive an average % rock, representative cross-section measurements are taken along the section length and the % rock calculated. The sum of one-half of the distance on each side of where the measurements were taken is applied as a weight against the % rock calculated at that cross-section. The percent rock is determined as follows:

$$\text{ROCK \%} = \frac{h^2}{H^2} * 100$$

Where:

h = the vertical cut height of all rock measured from the bottom of the ditch.

H = the total vertical cut height of all materials above the bottom of the ditch.

To determine the percent rock for roads not yet constructed, constructed roads on similar land/rock forms are used as a guide. Alternately, where estimates of rock volume from commercial road design programs are available for tabular sections, that information may be used to estimate the rock %.

5. Soil Moisture Regime (SMR):

Those biogeoclimatic zones/subzones with site series identified as “M”, “VM” or “W” in the dark shaded area of the table in Appendix III are considered “Wet” for appraisal purposes. The zones/subzones with site series identified as “SD” and “F” in the light shaded area are considered “Moist”. Those zones/subzones with the site series identified as “ED”, “VD”, “MD” in the unshaded area are considered “DRY”.

6. Biogeoclimatic Zone Abbreviations Used in Section 4.3.2.3

- SBS - Sub-Boreal Spruce
- ESSF - Engelmann Spruce Subalpine Fir

2. Bridges

Cost estimates for both log bridges and non-log bridges, where required and not included in subgrade cost estimates, are made as detailed engineering cost estimates (section 4.3.3).

4.3.2.5 Additional Stabilizing Material

Additional stabilizing material is the placement of gravel or broken rock on the road subgrade to provide stable support and a running surface for logging equipment using the road during the harvesting of tributary timber (see section 4.3.3(7)(m) for cost estimates pertaining to the use of special materials). Where stabilizing material developed during the subgrade or ditch construction is insufficient, a cost estimate for additional stabilizing material to be trucked in from selected borrow pits may be included in the appraisal.

Unit Cost Estimate

The unit cost estimate (\$/km) for the additional stabilizing material includes:

- borrow pit preparation,
- rock drilling, explosives, loading of explosives and blasting,
- loosening and/or pushing materials in borrow pits when required (e.g., compacted or cemented gravel, oversize material, etc.),
- loading gravel trucks,
- truck hauling, and
- spreading and compacting the material.

The cost estimates assume borrow pits are located adjacent to the road side and are not part of the subgrade excavation. If a new road needs to be constructed to access the borrow pit, then an access road cost estimate is required in addition to the in-place unit cost estimates.

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(7)(o)
2	20398
3	$13109 + (16874 * Q)$
4	$5423 + (662 * D) + (3403 * WET)$
5	$1489 + (1102 * D) + (9164 * LT) - (7096 * DRY)$ (\$2827/km set as minimum. If equation yields less than \$2827 then use \$2827)
6	$10418 + (1336 * D)$
7	16242
8	$6293 + (1104 * D)$
9	$13564 + (1446 * D)$
10	$5774 + (3213 * D)$
11	$5774 + (3213 * D)$
12	$5774 + (3213 * D)$

Where:

Road groups are defined in Table 4-1.

D	=	Distance in kilometres from source of ballast to the centre of the section that requires ballast (rounded to the nearest 0.1 km)
Q	=	1 if quarried or ripped rock, otherwise Q = 0
WET	=	1 if the Absolute Soil Moisture Code is WET Otherwise WET = 0
DRY	=	1 if the Absolute Soil Moisture Code is DRY Otherwise DRY = 0
LT	=	1 if a long term road, otherwise = 0

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

4.3.2.6 Cattle Guards, Fencing and Pipeline Crossings

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

- a. Cattle Guards \$6147 each

- estimates for reconstruction are not to exceed the tabular cost for new construction under similar conditions.
- j. Upgrade of roads and pertinent structures resulting in changes to the standard of the existing road and/or structure, including changes to the width of the running surface, horizontal and vertical realignment, additional culverts, lengthening of existing pullouts or adding additional pullouts where not required by the road standard or use of the road at the time of original construction.
 - k.
 - i. Placement 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.
 - l. 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.
 - m. Placement of additional stabilizing material where geo fabric, corduroy, crushed and/or screened rock/gravel are used.
 - n. Retaining walls, railway crossings and other structures (such as multiple culverts, baffled culverts, arched culverts and other structures determined by the timber pricing co-ordinator).
 - o. Subgrade and ballast cost estimate in road group 1. The subgrade and ballast cost estimate will be determined using the detailed engineering cost methodology specified by the former Northern Interior Forest Region.
 - p. The costs of designing and constructing a forwarding road, where the timber pricing co-ordinator is satisfied that when included in an appraisal it will result in an appraisal with the highest stumpage rate. 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.
8. 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.
9. The data required for bridges, culverts and for other 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 greater than 5.4 m and for pipe culverts greater than 1.8 m in diameter or 30 m in length **regardless of diameter**: 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.
10. Costs that may be included in the detailed engineered cost estimate are:
- a. Freight (for materials).
 - b. Provincial sales tax if applicable (for materials purchased prior to July 1, 2010 and on or after April 1, 2013).
 - c. Supervision of construction of complex structures by a professional engineer.
 - d. Bridge Costs
 - i. In addition to other costs described in this section, bridge costs may include:
 - Crib back fills to a maximum distance of 15 m on either end.
 - Site preparation.
 - Protection features such as rip rap.
 - Material and equipment supply and delivery (subject to paragraphs (ii) and (iii) in this subsection).
 - Bridge certification by a professional engineer either employed by the licensee or contracted. A maximum of three field visits are permitted unless otherwise approved by the regional timber pricing co-ordinator.
 - ii. Where bridge materials are re-used by the original purchaser at a different site, the bridge cost estimate may include the cost of dismantling the materials at the site where they were previously used, and transportation to and installation at the different site, but may not include the initial materials

and delivery costs.

- iii. Where used bridge materials are purchased by the licensee from a legally non-associated party, only the cost of purchasing and transporting those materials approved by the person determining the stumpage rate may be included in the bridge cost estimate in addition to the costs listed above.

 - 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.
11. GST/HST and supervision costs other than as stated above, are not to be included in the engineered estimate.
12. Where different timber volumes are used for separate cost estimates, the unit costs are rounded to the nearest cent before totalling.

4.3.3.1 Trending of Detailed Engineering Costs

- 1. Detailed engineering costs are not trended.

4.4 Road Management

Where the licensee is obliged to carry out road management activities, the road management cost estimate includes but is not limited to, costs for the following:

- | | |
|--|---|
| a. all access management | n. minor flood and storm damage repair |
| b. all deactivation | o. non-structural maintenance of bridges |
| c. bridge re-decking/wearing surface replacement | p. road ripping |
| d. brushing | q. road use charges paid to other licensees |
| e. cattle guard cleanout | r. roadside treatments |
| f. cross ditch construction | s. sanding |
| g. culvert removal | t. seasonal erosion control |
| h. culvert repairs and thawing | u. sign maintenance |
| i. culvert replacement | v. slough removal |
| j. ditching | w. snowplowing and refreezing |
| k. dust control | x. spot gravelling (< 0.3 km distance) |
| l. grading | y. water bar construction (seasonal) |
| m. grass seeding | |

The cost estimate for all road management carried out on logging operations depends on the geographic location of the cutting authority area (refer to Table 4-3).

Cutting authorities issued under forms of tenure not located administratively within a tree farm licence area or timber supply area will be assigned the road management cost estimate for the TFL or TSA/supply block in which the cutting authority is geographically located.

Table 4-3 Road Management Cost Estimates

Area	TFL #	TSA	TSA #	Supply Block	\$/m ³
North		Bulkley	3	All	4.04
		Cascadia	45	9, 10 & 11	4.04
		Cassiar	4	All	4.04
		Cranberry	42	All	4.04
		Dawson Creek	41	All	1.31
		Fort Nelson	8	All	1.31
		Fort St. John	40	All	1.31
		Kalum	10	All	4.04
		Kispiox	12	All	4.04
		Lakes	14	All	1.73
		Mackenzie	16	All	1.28
		Morice	20	All	1.73
		Nass	43	All	4.04
		Pacific	44	28-A, 28-B	4.04
		Prince George	24	A, B	1.28
		Prince George	24	C	0.90
		Prince George	24	D	1.32
		Prince George	24	E, F, I	1.56
		Prince George	24	G, H	1.84
		1			
	30				1.84
	41				4.04
	48				1.31
	53				1.84
South		100 Mile House	23	A, B, C, D	1.37
		100 Mile House	23	E, F, G, H	1.44
		Arrow	1	All	1.88
		Boundary	2	C, D, G	1.88
		Boundary	2	E, F	2.57
		Cascadia		1, 2, 3 & 4	1.88
		Cascadia		5, 6, 7 & 8	1.84
		Cranbrook	5	All	1.77
		Golden	7	All	3.29
		Invermere	9	All	1.77
		Kamloops	11	1	1.60
		Kamloops	11	2, 3, 4	1.41
		Kootenay Lake	13	All	1.99

Area	TFL #	TSA	TSA #	Supply Block	\$/m ³	
South		Lillooet	15	All	4.04	
		Merritt	18	All	1.52	
		Okanagan	22	1, 2, 3	2.57	
		Okanagan	22	4, 5, 6, 7	2.57	
		Okanagan	22	8, 9	3.29	
		Quesnel	26	A, B, C, D	0.85	
		Quesnel	26	E, F, G, H, I	1.84	
		Revelstoke	27	All	3.29	
		Robson Valley	17	All	1.60	
		Williams Lake	29	A, B, C, D, E, I	1.19	
		Williams Lake	29	F, G, H, J	1.37	
		Williams Lake	29	K, L, M, N	1.44	
		3				1.88
		5 ¹				1.56
		8				2.57
		14				1.77
		18				1.60
		23				1.88
		33				3.29
		35				1.41
	49				2.57	
	52				1.84	
	55				3.29	
	56				3.29	
	59				2.57	

¹ That portion of TFL 52 that was within the former TFL5.

4.4.1 Road and Land Use Charges

Prior to a road or land use charge being included in the TOA, the licensee must:

- a. submit a "Request for Approval of a Road Use Charge" form with the appraisal data submission; and
- b. receive written approval of the road or land use charge from the regional manager.

1. Charges as a Share of Road Management

- a. No recognition is made of such charges. The road management cost estimate in section 4.4 includes all relevant costs whether incurred directly by the licensee or by payment to another party for services performed.

2. Charges Other Than for Road Management

There are three main categories of road status:

a. Forest Service Roads

No road use charges will be included in the TOA for a road that is declared, determined, built, maintained or modified by the provincial government.

b. Permitted Roads

No road use charges will be included in the TOA for roads built on Crown land, authorized by road permit or other cutting authority documents. This category also includes foreshore leases, camp areas and dryland sorts.

c. Other Roads

Road use charges for roads on Indian Reserves or on private land owned by an arm's length third party and not subject to a lease held by the licensee, their affiliate or an agent of either, may be included in the TOA provided there is no lower cost route capable of development through Crown land.

The charges recognized must be reasonable, must not exceed compensation that might be determined under forest legislation and must be proven through the presentation of auditable documents.

3. Other Land Use Charges

Only non-governmental land use charges may be included in the TOA.

4.4.2 Final Road Management (FRM)

The Final Road Management (FRM) cost estimate is determined as follows:

1. For cruise based cutting authorities:

$$\text{FRM } (\$/\text{m}^3) = \text{RM } (\$/\text{m}^3) + \text{RU } (\$/\text{m}^3)$$

2. For scale based cutting authorities:

$$\text{IRM } (\$/\text{m}^3) = \frac{\text{RM } (\$/\text{m}^3) * [\text{TNCV } (\text{m}^3) + \text{D } (\text{m}^3)]}{\text{TNCV } (\text{m}^3)}$$

$$\text{IRU } (\$/\text{m}^3) = \frac{\text{RU } (\$/\text{m}^3) * [\text{TNCV } (\text{m}^3) + \text{D } (\text{m}^3)]}{\text{TNCV } (\text{m}^3)}$$

$$\text{FRM } (\$/\text{m}^3) = \text{IRM } (\$/\text{m}^3) + \text{IRU } (\$/\text{m}^3)$$

Where:

IRM = Interim Road Management cost estimate

IRU = Interim Road and Land Use Charges

RM = Road Management cost estimate from table 4-3

RU = Road and land use charges applicable under section 4.4.1

TNCV = Total Net Coniferous Volume from the cruise

D = Total Net Deciduous Volume from the cruise

4.5 Basic Silviculture Cost Estimate

1. The basic silviculture cost estimate includes the cost of all activities that are required to achieve a licensee’s free-growing stand obligations (except root disease control) on the cutting authority area.
 - a. A basic silviculture cost estimate may not be included in the TOA unless:
 - i. the licensee is obligated to establish a free growing stand, and,
 - ii. the activity is not funded by another agency.
2. The area to which the basic silviculture cost estimate may be applied in the appraisal is the gross silviculture area (GSA). The GSA includes NMA from the cruise and any other portion of the cutting authority area not included in the NMA, where the licensee has an obligation to establish a free-growing stand.
3. Table 4-4 lists the cost estimates (\$/ha) for Biogeoclimatic Ecosystem Classification (BEC) zone, subzone, and variant combinations across the interior. Where the subzone/variant combination is not listed in the table, the BEC undifferentiated subzone “un” cost estimate is used.
4. Where a cutting authority area includes more than one BEC zone/subzone/variant combination, a prorated BEC zone/subzone/variant cost estimate will be determined by prorating the cost estimates from Table 4-4 for the primary and secondary BEC combination identified in the appraisal data submission based on their respective % by net merchantable area identified in the appraisal data submission.
5. The basic silviculture cost estimate is calculated as follows:

$$\text{Basic Silviculture } (\$/\text{m}^3) = \frac{[\text{NMA} * \text{Cost} * (\text{CAPCUT}\%/100) * 1.25] + [(\text{GSA} - \text{NMA}) * \text{Cost}]}{(\text{TNCV or TNCRV})^1}$$

¹ For scale based CAs, use TNCV. For cruise based CAs use TNCRV.

Where:

- NMA = Net merchantable area (ha). This area must be the same area directly attributable to the appraised Total Net Cruise Volume for the cutting authority.
- Cost = Prorated BEC zone/subzone/variant cost (\$/ha) from Table 4-4.
- TNCV = Total Net Coniferous Volume (m³).

GSA = Gross silviculture area (ha) within the cutting authority area for which the licensee has free-growing obligations and has not yet received a basic silviculture cost estimate in any appraisal. For the purpose of this section the GSA cannot be less than the NMA and includes any pre-harvested areas outside the NMA of a fully appraised cutting permit that the licensee is responsible for silviculture.

TNCRV = Total Net Cruise Volume (m³).

PCUT = Partial cutting includes all forms of harvesting, other than clear cutting. Clear cutting is defined as those areas with block opening sizes equal to or greater than 1 hectare and where the volume removal is equal to or greater than 90% based on the net volume measured to the Interior Standard Timber Merchantability Specifications (section 1.5).

Partial cut areas that have less than 90% volume removal are not to be averaged with those areas that are equal to or greater than 90%. Clear cut areas are to be stratified out before calculating an overall weighted partial cut percent for the cutting authority.

Where a partial cut is comprised of openings of less than 1 hectare in size, the PCUT percent is based on the cumulative volume of these openings divided by the volume of the block area surrounding them.

$$PCUT = \frac{\text{Total Net Cruise Volume required to be removed using a partial cut system}}{\text{Total Net Cruise Volume on the area where Partial Cutting is required}} * 100$$

(except if partial cut percent $\geq 90\%$, then PCUT = 0)

CAPCUT = Cutting Authority (CA) partial cut %. If CAPCUT% $> 80\%$ CAPCUT% = 80, otherwise:

$$CAPCUT\% = (CA \text{ TNCRV} / CA \text{ Gross TNCRV}) * 100$$

$$CA \text{ Gross TNCRV}(m^3) = {}^vGS(C) + ({}^vGS(P) / GS(PCUT/100)) + {}^vOC(C) + ({}^vOC(P) / OC(PCUT/100)) + {}^vSK(C) + {}^vHorse(C) + {}^vHeli(C) + ({}^vHeli(P) / Heli(PCUT/100))$$

Where:

PCUT	=	Logging method PCUT (%)
CAPCUT	=	Cutting Authority (CA) partial cut percent
v	=	Harvest Method Volume (m ³) required to be logged by each system
Heli (C)	=	helicopter logging (clear cut)
Heli (P)	=	helicopter logging (partial cut)
Horse(C)	=	horse logging (clear cut)
GS (C)	=	ground skidding (clear cut)
GS (P)	=	ground skidding (partial cut)
OC(C)	=	overhead cable logging (clear cut)
OC(P)	=	overhead cable logging (partial cut)
SK(C)	=	skyline logging (clear cut)

4.5.1 Root Disease Control

1. Costs for root disease control may only be included in the calculation of the TOA when the treatment is required in a Site Plan, is indicated on the appraisal map, or meets the requirements in this manual.
2. The cost estimates are determined on the basis of information at hand using the procedures approved by the region or Timber Pricing Branch.

4.5.2 Total Silviculture Cost Estimate

$$\text{Total Silviculture (\$/m}^3\text{)} = \text{Basic Silviculture (\$/m}^3\text{)} + \frac{\text{Root Disease Control (\$)}}{\text{TNCV or TNCRV (m}^3\text{)}^1}$$

¹ For scale based CAs, use TNCV. For cruise based CAs, use TNCRV.

Table 4-4 BEC Silviculture Cost Estimates*

BEC Zone	Subzone	Variant	\$/ha
BWBS	un		1169
BWBS	dk		1169
BWBS	dk	1	1169
BWBS	dk	2	1243
BWBS	mk		1243
BWBS	mw		1196
BWBS	mw	1	1196
BWBS	mw	2	1243
BWBS	vk		1169
BWBS	wk	1	1047
BWBS	wk	2	1084
BWBS	wk	3	1084
CWH	un		654
CWH	vh	1	654
CWH	vh	2	654
CWH	vm		654
CWH	vm	1	654
CWH	vm	2	654
CWH	vm	3	654
CWH	wh	1	654
CWH	wh	2	654
CWH	wm		654
CWH	ws	1	654
CWH	ws	2	654
CWH	xm	1	654
CWH	xm	2	654
ESSF	un		1185
ESSF	dc	1	1273
ESSF	dc	2	1088
ESSF	dcp	1	1185
ESSF	dcp	2	1185
ESSF	dk		1276
ESSF	dk	1	1276
ESSF	dk	3	1276
ESSF	dk	4	1276
ESSF	dkp		1185
ESSF	dku		1185

BEC Zone	Subzone	Variant	\$/ha
ESSF	dm		1185
ESSF	dv		1185
ESSF	dvp		1185
ESSF	mc		944
ESSF	mcp		1185
ESSF	mk		1185
ESSF	mkp		1185
ESSF	mm	1	1185
ESSF	mm	2	1185
ESSF	mmp	1	1185
ESSF	mmp	2	1185
ESSF	mv	1	696
ESSF	mv	2	1136
ESSF	mv	3	980
ESSF	mv	4	915
ESSF	mvp	1	1185
ESSF	mvp	2	1185
ESSF	mvp	3	1185
ESSF	mvp	4	1185
ESSF	mw		1055
ESSF	mwp		1185
ESSF	vc		3540
ESSF	vc	2	3540
ESSF	vcp		1185
ESSF	vv		1185
ESSF	vvp		1185
ESSF	wc	1	1791
ESSF	wc	2	1432
ESSF	wc	3	1482
ESSF	wc	4	1700
ESSF	wcp	2	1185
ESSF	wcp	3	1185
ESSF	wcp	4	1185
ESSF	wk	1	1318
ESSF	wk	2	1315
ESSF	wm		1712
ESSF	wmp		1185

4.6 Low Grade Percent Adjustment

1. The POA low grade percent adjustment by timber species as shown in Tables 4-5 and 4-6 must be used in the calculation of the tenure obligation adjustment to account for the timber that is priced at the statutory rate.
2. The low grade percent adjustment for each timber species to be used in the appraisal or reappraisal of the cutting authority area must be the percent adjustment by timber species by the POA to which the cutting authority area is appraised. Where the Total Net Coniferous Volume of timber on the cutting authority area is comprised of 35% or greater red and grey Mountain Pine Beetle (MPB) attacked Lodgepole pine, the adjustment from Table 4-6 is used. For cutting authorities with less than 35% red and grey MPB attacked Lodgepole pine, the adjustment is used from Table 4-5.
3. The low grade percent adjustment 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 coniferous cruise volume of each timber species in the cutting authority area multiplied by the low grade percent adjustment for that species, divided by the Total Net Coniferous Volume on the cutting authority area.
4. The low grade percent adjustment does not apply to cruise based cutting authorities.

Table 4-5: Point of Appraisal (POA) Low Grade Percent Adjustment by Timber Species (Cutting Authorities with Less than 35% R&G MPB Damage see 4.6(2))

POA	BA	CE	FI	HE	LA	LO	SP	WH	YE
100 Mile	0.5679	0.6308	0.0712	0.3386	0.0801	0.6224	0.2729	0.4836	0.3077
Adams Lake	0.2503	0.1967	0.0431	0.1153	0.0946	0.4335	0.1000	0.2497	0.3077
Armstrong	0.2625	0.1562	0.0586	0.1752	0.0923	0.3900	0.0948	0.4838	0.3077
Bear Lake	0.3749	0.6750	0.2305	0.7867	0.0801	0.7658	0.1800	0.4836	0.3077
Burns Lake	0.2582	0.6750	0.1372	0.7280	0.0801	0.4300	0.1565	0.4836	0.3077
Canal Flats	0.1393	0.2146	0.0879	0.2678	0.0815	0.1241	0.0770	0.4838	0.3497
Canoe	0.2575	0.1491	0.0372	0.2550	0.0806	0.4117	0.1052	0.3694	0.3077
Castlegar	0.3882	0.1614	0.0357	0.1858	0.1047	0.4392	0.1035	0.6405	0.3077
Chasm	0.5679	0.6308	0.0712	0.3386	0.0801	0.6224	0.2729	0.4836	0.3077
Chetwynd	0.1674	0.2142	0.0550	0.3386	0.0801	0.2662	0.0850	0.4836	0.3077
Clear Lake	0.3580	0.6750	0.1779	0.7888	0.0801	0.7273	0.1640	0.4836	0.3077
Craigellachie	0.3289	0.2716	0.0237	0.4007	0.1508	0.3780	0.1496	0.4027	0.3077
Creston	0.1392	0.0806	0.0380	0.0600	0.0560	0.1117	0.0523	0.4838	0.3077
Elko	0.1269	0.2146	0.0988	0.2678	0.1133	0.1139	0.0703	0.4838	0.1774
Engen	0.2754	0.6750	0.1372	0.7280	0.0801	0.7784	0.2274	0.4836	0.3077
Fort St. James	0.3240	0.6750	0.1372	0.7280	0.0801	0.5833	0.1747	0.4836	0.3077
Fort St. John	0.1706	0.2142	0.0550	0.3386	0.0801	0.2727	0.1085	0.4836	0.3077
Fraser Lake	0.2754	0.6750	0.1372	0.7280	0.0801	0.7784	0.2274	0.4836	0.3077
Galloway	0.1318	0.2146	0.0284	0.2678	0.0972	0.0783	0.0643	0.4838	0.3077
Grand Forks	0.2246	0.0929	0.0638	0.1155	0.0643	0.1336	0.0762	0.4838	0.3077
Hazelton	0.2081	0.0589	0.0550	0.1746	0.0801	0.0485	0.0714	0.4836	0.3077
Houston	0.2582	0.6750	0.1372	0.7280	0.0801	0.4300	0.1565	0.4836	0.3077
Isle Pierre	0.3580	0.6750	0.1779	0.7888	0.0801	0.7273	0.1640	0.4836	0.3077
Kelowna	0.3456	0.2158	0.0594	0.2678	0.0609	0.3006	0.0922	0.4838	0.3077
Kitwanga	0.1369	0.1034	0.0550	0.3773	0.0801	0.0415	0.0123	0.4836	0.3077
Lavington	0.2389	0.1729	0.0643	0.2678	0.0824	0.3497	0.0887	0.4838	0.3077
Lumby	0.3477	0.1702	0.0499	0.2816	0.0785	0.4000	0.1114	0.6933	0.3077
Lytton	0.1781	0.6308	0.0398	0.3386	0.0801	0.3010	0.1000	0.4836	0.3077
Mackenzie	0.2607	0.6750	0.1372	0.7280	0.0801	0.4577	0.1158	0.4836	0.3077
McBride	0.2164	0.4296	0.0747	0.5514	0.0798	0.6717	0.0955	0.4838	0.3077
Merritt	0.2923	0.2146	0.0598	0.2678	0.0798	0.3888	0.1208	0.4838	0.3077
Midway	0.2562	0.1968	0.0808	0.1650	0.0864	0.1924	0.0848	0.4838	0.3077
Prince George	0.3580	0.6750	0.1779	0.7888	0.0801	0.7273	0.1640	0.4836	0.3077
Princeton	0.2742	0.2146	0.0601	0.2678	0.0798	0.2903	0.1297	0.4838	0.3077
Quesnel	0.2511	0.6750	0.0356	0.7280	0.0801	0.7596	0.0982	0.4836	0.3077
Radium	0.1094	0.0919	0.0300	0.2678	0.0612	0.1146	0.0505	0.4960	0.3077
Revelstoke	0.3026	0.3983	0.0311	0.4831	0.1967	0.3764	0.1197	0.5838	0.3077
Slocan	0.3072	0.1094	0.0345	0.1398	0.0841	0.5540	0.1036	0.5098	0.3077
Smithers	0.2140	0.6750	0.1372	0.7280	0.0801	0.2329	0.0999	0.4836	0.3077
Squamish	0.1781	0.6308	0.0398	0.3386	0.0801	0.3010	0.1000	0.4836	0.3077
Strathnaver	0.3249	0.6750	0.0555	0.7280	0.0801	0.7711	0.1257	0.4836	0.3077
Terrace	0.1495	0.0444	0.0550	0.3773	0.0801	0.0485	0.0802	0.4836	0.3077
Thrusms	0.3484	0.0749	0.0524	0.1229	0.0717	0.4841	0.0941	0.5436	0.3077
Valemount	0.2164	0.4296	0.0747	0.5514	0.0798	0.6717	0.0955	0.4838	0.3077
Vanderhoof	0.2754	0.6750	0.1372	0.7280	0.0801	0.7784	0.2274	0.4836	0.3077
Vavenby	0.3094	0.1534	0.0410	0.1024	0.0798	0.4412	0.1261	0.1383	0.3077
Westbank	0.3305	0.2146	0.0814	0.2678	0.0687	0.2691	0.0836	0.4838	0.3077
Williams Lake	0.2862	0.6308	0.0982	0.3386	0.0801	0.5429	0.1350	0.4836	0.3077
Ymir	0.3037	0.0655	0.0440	0.1848	0.0427	0.4031	0.1412	0.6836	0.3077

Table 4-6 Point of Appraisal (POA) Low Grade Percent Adjustment by Timber Species (Cutting Authorities with 35% or more R&G MPB Damage see 4.6(2))

POA	BA	CE	FI	HE	LA	LO	SP	WH	YE
100 Mile	0.3766	0.1791	0.1062	0.2233	0.5769	0.6858	0.1550	0.3226	0.8364
Adams Lake	0.2740	0.6669	0.0201	0.1025	0.0647	0.4296	0.0630	0.5172	0.8364
Armstrong	0.3908	0.4081	0.0694	0.1025	0.0647	0.3198	0.0885	0.5507	0.8364
Bear Lake	0.3257	0.2123	0.1064	0.2235	0.1941	0.8582	0.1850	0.0043	0.8364
Burns Lake	0.2644	0.2123	0.0710	0.2235	0.1941	0.6669	0.1670	0.0043	0.8364
Canal Flats	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Canoe	0.3908	0.4081	0.0694	0.1025	0.0647	0.3198	0.0885	0.5507	0.8364
Castlegar	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Chasm	0.2719	0.1791	0.0900	0.2233	0.5769	0.6669	0.1434	0.3226	0.8364
Chetwynd	0.2180	0.4030	0.0762	0.1417	0.1679	0.2517	0.0761	0.5183	0.8364
Clear Lake	0.3040	0.2123	0.0724	0.2235	0.1941	0.7627	0.1704	0.0043	0.8364
Craigellachie	0.3908	0.4081	0.0694	0.1025	0.0647	0.3198	0.0885	0.5507	0.8364
Creston	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Elko	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Engen	0.3275	0.2123	0.0710	0.2235	0.1941	0.7778	0.2003	0.0043	0.8364
Fort St. James	0.2986	0.2123	0.0648	0.2235	0.1941	0.6793	0.1669	0.0043	0.8364
Fort St. John	0.2180	0.4030	0.0762	0.1417	0.1679	0.2517	0.0761	0.5183	0.8364
Fraser Lake	0.1684	0.2123	0.0710	0.2235	0.1941	0.8193	0.1666	0.0043	0.8364
Galloway	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Grand Forks	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Hazelton	0.2876	0.2123	0.0710	0.2235	0.1941	0.6828	0.2106	0.0043	0.8364
Houston	0.2876	0.2123	0.0710	0.2235	0.1941	0.6828	0.2106	0.0043	0.8364
Isle Pierre	0.3534	0.2123	0.0880	0.2235	0.1941	0.8172	0.2109	0.0043	0.8364
Kelowna	0.2589	0.4081	0.0710	0.1025	0.0647	0.3852	0.0738	0.5507	0.8364
Kitwanga	0.2876	0.2123	0.0710	0.2235	0.1941	0.6828	0.2106	0.0043	0.8364
Lavington	0.3908	0.4081	0.0694	0.1025	0.0647	0.3198	0.0885	0.5507	0.8364
Lumby	0.3908	0.4081	0.0694	0.1025	0.0647	0.3198	0.0885	0.5507	0.8364
Lytton	0.2719	0.1791	0.0900	0.2233	0.5769	0.6669	0.1434	0.3226	0.8364
Mackenzie	0.2668	0.2123	0.0710	0.2235	0.1941	0.6467	0.1588	0.0043	0.8364
McBride	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Merritt	0.2173	0.4081	0.0853	0.1025	0.0647	0.3557	0.0883	0.5507	0.8660
Midway	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Prince George	0.3515	0.2123	0.0780	0.2235	0.1941	0.8105	0.2052	0.0043	0.8364
Princeton	0.2729	0.4081	0.0529	0.1025	0.0486	0.3661	0.1475	0.5507	0.8364
Quesnel	0.1964	0.2123	0.0705	0.2235	0.1941	0.6129	0.1250	0.0043	0.8364
Radium	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Revelstoke	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Slocan	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Smithers	0.2876	0.2123	0.0710	0.2235	0.1941	0.6828	0.2106	0.0043	0.8364
Squamish	0.2719	0.1791	0.0900	0.2233	0.5769	0.6669	0.1434	0.3226	0.8364
Strathnaver	0.3105	0.2123	0.0363	0.2235	0.1941	0.7423	0.1325	0.0043	0.8364
Terrace	0.2876	0.2123	0.0710	0.2235	0.1941	0.6828	0.2106	0.0043	0.8364
Thrumbs	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Valemount	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Vanderhoof	0.2900	0.2123	0.0154	0.2235	0.1941	0.7683	0.1852	0.0043	0.8364
Vavenby	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364
Westbank	0.2589	0.4081	0.0710	0.1025	0.0647	0.3852	0.0738	0.5507	0.8364
Williams Lake	0.2998	0.1791	0.0967	0.2681	0.7827	0.5856	0.1046	0.3226	0.8364
Ymir	0.2782	0.1884	0.0553	0.1014	0.0503	0.4966	0.0921	0.1825	0.8364

4.7 Market Logger Cost

1. The market logger cost (MLC) is used in the calculation of the tenure obligation adjustment in an appraisal or reappraisal of a cutting authority area.
2. MLC is expressed in \$/m³ and is calculated from the MPS data set

$$MLC = \left[\left(\frac{1.17}{1 - LG} \right) + 0.06 \right] \times \left[\frac{CPI}{138.1} \right]$$

Where:

\$1.17/m³ is the average market logger development cost for the auction dataset.

LG is the low grade percent adjustment from Tables 4-5 or 4-6 (for cruise based cutting authorities, LG = 0).

\$0.06/m³ is the market logger specified operation cost from the auction dataset.

CPI is the monthly BC Consumer Price Index (refer to section 3.3).

138.1 is the average CPI for the cost base (2011/12).

Miscellaneous Policies

6

6.1 Coniferous Average Sawlog Stumpage Rates by Forest Zone and Species

1. a. Each of the following forest zones referred to in Tables 6-1, 6-2, 6-4 and 6-5 is made up of the following forest districts and or geographic units:
 - i. North Central Zone - Fort St. James, Mackenzie, Nadina, Prince George (less Robson Valley TSA), Quesnel and Vanderhoof.
 - ii. North East Zone - Fort Nelson and Peace.
 - iii. North West Zone - Coast Mountain (excluding that portion that lies geographically within the North Coast Timber Supply Area), Skeena Stikine.
 - iv. South Central Zone – Williams Lake TSA Blocks A, B, C, D, **E & I**.
 - v. South East Zone - Okanagan Shuswap, Rocky Mountain, Selkirk, and Thompson Rivers (plus Robson Valley TSA).
 - vi. South West Zone - 100 Mile House, Cascades, and Williams Lake TSA Blocks **F, G, H, and J** to N.
- b. Where a species of coniferous timber is not listed in Table 6-1, 6-2, 6-4 and 6-5, the rate that must be used for that species of timber is the rate listed in the column headed as OTHER.

Table 6-1 Coniferous Average Sawlog Stumpage Rates in \$/m³ by Forest Zone and Species

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	W. PINE	Y. PINE	OTHER ¹
North Central	19.25	-	23.66	24.74	-	15.67	20.86	-	-	19.62
North East	5.55	-	-	-	-	7.12	7.74	-	-	7.56
North West	6.56	4.68	-	6.21	-	10.28	6.47	-	-	7.09
South Central	1.93	-	1.22	-	-	1.38	1.76	-	-	1.49
South East	15.28	19.52	18.39	17.49	16.90	17.27	15.88	16.40	13.56	17.18
South West	16.40	22.34	22.33	13.50	-	20.73	18.70	16.48	-	19.85

¹ Average for the Forest Zone

6.1.1 Community Forest Agreements

1. The sawlog stumpage rate for each species of coniferous timber harvested under any cutting authority issued under a Community Forest Agreement is the rate prescribed in Table 6-2 for the forest zone in which the cutting authority area is located.
2. Section 1.4(1)(d), sections 6.1.2 through 6.5 and sections 6.7 through 6.9 do not apply to Community Forest Agreement cutting authorities.
3. The stumpage rate determined under this section is redetermined on August 1 of each year in accordance with this section.

6.1.2 Woodlot Licences

1. Except as provided in subsection (2) of this section, the sawlog stumpage rate for each species of coniferous timber harvested under a cutting permit issued for a woodlot licence with an effective date after November 30, 2008 is the rate prescribed in Table 6-2 for the forest zone in which the cutting authority area is located.
2. Where a woodlot licence cutting permit has been issued with an effective date after November 30, 2008 for the purpose of using amounts from an eligible extended road amortization agreement in an appraisal, then the stumpage rate will be determined using the procedures in this manual excluding this section.
3. Except as provided in subsection (4) of this section, the sawlog stumpage rate for coniferous timber harvested under a road permit issued for a woodlot licence is the rate prescribed in Table 6-2 for the forest zone in which the timber mark applies.
4. Where a woodlot has an eligible extended road amortization agreement before December 1, 2008 the sawlog stumpage rate for a road permit with an effective date on or after December 1, 2008 is calculated using the procedures in section 6.3.1.
5. The sawlog stumpage rate for each species of coniferous timber harvested under a blanket salvage permit issued for a woodlot licence is the rate prescribed in Table 6-2 for the forest zone in which the blanket salvage permit applies.
6. The stumpage rate determined under subsections (1), (3) and (5) of this section is redetermined on August 1, each year in accordance with this section.
7. Except as provided in subsections (2) and (4) of this section, sections 1.4(1)(d), 6.1.1, 6.1.3 through 6.5, and sections 6.7 through 6.9 do not apply to Woodlot Licence cutting authorities.

**Table 6-2 Community Forest Agreements and Woodlot Licences:
Coniferous Average Sawlog Stumpage Rates in \$/m³**

FOREST ZONE	BALSAM	CEDAR	FIR	HEMLOCK	LARCH	L. PINE	SPRUCE	W. PINE	Y. PINE	OTHER ¹
North Central	2.89	-	3.55	3.71	-	2.35	3.13	-	-	2.94
North East	0.83	-	-	-	-	1.07	1.16	-	-	1.13
North West	0.98	0.70	-	0.93	-	1.54	0.97	-	-	1.06
South Central	0.29	-	0.25	-	-	0.25	0.26	-	-	0.25
South East	2.29	2.93	2.76	2.62	2.54	2.59	2.38	2.46	2.03	2.58
South West	2.46	3.35	3.35	2.03	-	3.11	2.81	2.47	-	2.98

¹ Average for the Forest Zone

6.1.3 Incidental Conifer in Deciduous Leading Stands

1. Except as provided in section 5.1.1(5), this section applies to coniferous timber in a cutting authority area where the total estimated volume of all deciduous species to be harvested is greater than 70% of the total estimated volume of all species to be harvested.
2.
 - a. The stumpage rate for each species of coniferous timber must be determined by using the stumpage rate prescribed in Table 6-1 for the forest zone in which the cutting authority area is located.
 - b. Where the Crown is responsible for basic silviculture on the cutting authority area, the stumpage rate for each species of coniferous timber must be the sum of the rate determined under paragraph (a) of this subsection and the silviculture levy determined under section 5.3.
3. A stumpage rate determined under subsection 2 must be redetermined on June 1, of each year in accordance with this section.
4. Notwithstanding subsection (2) in this section, the stumpage rate may be determined through a full appraisal in accordance with chapters 1, 2, 3, 4, and 5.

6.2 Cutting Authorities With 5 000 m³ or Less Volume

1. Where the total estimated 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 must be
 - i. the sum of the rate determined under paragraph (a) of this subsection and the basic silviculture cost¹ for the species in the applicable **Interior Area**, or
 - ii. where the Crown has the responsibility for silviculture, the sum of the rate determined under paragraph (a) of this subsection and the silviculture levy determined under section 5.3.
2. Except as provided in subsection 4 of this section or section 6.2.1, where the total estimated 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. Except as provided in 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 must 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 must 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

¹ From the Interior Basic Silviculture Costs published quarterly and available on the Timber Pricing Branch website.

- (a), (b) or (c) of this subsection and the basic silviculture levy determined under section 5.3.
3. Where the cutting authority authorizing harvesting is a competitively awarded licence to cut other than a BCTS licence, and
 - a. The Total Net Cruise Volume is 5000m³ or less, and
 - b. The cutting authority has been approved as cruise based under section 106 of the *Act*,

the upset must be no less than the district's cost to prepare the timber for sale as calculated by the district manager and the total stumpage must apply to all species of timber on the cutting authority area.
 4. An upset stumpage rate determined under subsection (2) of this section must not be less than the district's variable cost per cubic meter to prepare the timber for sale as calculated by the district manager.
 5. Except as provided in section 2.2.2, where the upset stumpage rate is determined under this section, the total stumpage is fixed for the term of the cutting authority and all extensions.
 6. a. Notwithstanding subsections (1), (2) or (3) 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 through a full appraisal in accordance with chapters 1, 2, 3, 4 and 5.
 - b. Where the stumpage rate is determined in accordance with this subsection the total stumpage rate is fixed for the term 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 *Licence to Cut Regulation*, or
 - ii. For the purpose of removing damaged timber from natural stands or plantations where:
 - aa. at least 70% of the total estimated volume of all species 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 60 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

Table 6-3 Coniferous Average Sawlog Stumpage Rates by Smallest Geographic Unit

TSA is Smallest Geographic Unit			
District	Rate (\$/m ³)	TSA	Rate (\$/m ³)
Cascades	17.58	Lillooet	6.22
		Merritt	19.40
Coast Mountain (excluding North Coast Timber Supply Area)	3.69	Cascadia Blks 9,10,11	3.40
		Kalum	3.40
		Nass	6.58
		Pacific Bks 28A,28B	3.40
Nadina	13.24	Lakes	13.55
		Morice	13.24
Peace	7.29	Dawson Creek	8.47
		Fort St John	6.75
Prince George	21.04	Robson Valley	12.06
Quesnel	17.88	Cascadia Bks 5,6,7,8	17.88
		Quesnel	17.88
Rocky Mountain	13.17	Cranbrook	14.91
		Invermere	11.63
Selkirk	14.69	Arrow	15.85
		Boundary	15.40
		Cascadia Blks 1,2,3	15.85
		Cascadia Blk. 4	9.07
		Golden	15.05
		Kootenay Lake	14.66
		Revelstoke	9.07
Skeena Stikine	7.82	Bulkley	13.22
		Cassiar	0.88
		Kispiox	8.55

District is Smallest Unit			
TSA	Rate (\$/m ³)	District	Rate (\$/m ³)
Prince George	21.19	Fort St. James	16.70
		Vanderhoof	11.41
Williams Lake	21.03	Cariboo Chilcotin	23.62
		Williams Lake TSA Blocks, A, B, C, D	1.39

District & TSA are the same		
District	TSA	Rate (\$/m ³)
Fort Nelson	Fort Nelson	7.29*
Mackenzie	Mackenzie	12.69
Okanagan Shuswap	Okanagan	18.76
Thompson Rivers	Kamloops	15.29
100 Mile House	100 Mile House	8.63

*Regional rate

Region is Smallest Unit			
Area	Rate (\$/m ³)	Region	Rate (\$/m ³)
North	13.72	Northeast	7.29
		Omenica	19.69
		Skeena	9.44
South	15.95	Cariboo	17.23
		Kootenay Boundary	14.10
		Thompson-Okanagan	17.37

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.
 - d. Will be or has been used for trap trees and associated overflow trees.
4. Except as provided in section 6.2.1(1)(c)(ii), 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 must 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 total estimated 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 must be the rate in Table 6-4 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 must be the rate in Table 6-5 for the forest zone in which the cutting authority area is located.

Table 6-4 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	W. PINE	Y. PINE	OTHER ¹
North Central	11.55	-	21.29	14.84	-	11.75	18.77	-	-	11.77
North East	3.33	-	-	-	-	5.34	6.97	-	-	4.54
North West	3.94	4.21	-	3.73	-	7.71	5.82	-	-	4.25
South Central	1.16	-	1.10	-	-	1.04	1.58	-	-	0.89
South East	9.17	17.57	16.55	10.49	15.21	12.95	14.29	12.30	10.17	10.31
South West	9.84	20.11	20.10	8.10	-	15.55	16.83	12.36	-	11.91

¹ Average for the Forest Zone

Table 6-5 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	W. PINE	Y. PINE	OTHER ¹
North Central	4.81	-	11.83	6.19	-	7.84	10.43	-	-	4.91
North East	1.39	-	-	-	-	3.56	3.87	-	-	1.89
North West	1.64	3.74	-	1.55	-	5.14	3.24	-	-	1.77
South Central	0.48	-	0.61	-	-	0.69	0.88	-	-	0.37
South East	3.82	15.62	9.20	4.37	8.45	8.64	7.94	8.20	6.78	4.30
South West	4.10	17.87	11.17	3.38	-	10.37	9.35	8.24	-	4.96

¹ Average for the Forest Zone

6.5 Decked and Partially Harvested Timber for a Cutting Authority Other than a Cutting Authority Entered Into Under a BCTS Licence

1. When decked timber only is advertised for sale to the highest bidder, the upset stumpage rate for the timber must be the total of the silviculture levy determined under section 5.3 and:
 - a. The prescribed minimum stumpage rate if the timber has been decked for over three years, or
 - b. 70% of the stumpage rate from Table 6-4 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 must be the total of the silviculture levy determined under section 5.3 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 6-4 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 must be the total of the silviculture levy determined under section 5.3 and:
 - a. The prescribed minimum stumpage rate, if three years or more have passed since the timber was felled, or
 - b. 70% of the stumpage rate for the applicable species and forest zone from Table 6-5 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 must be the total of the silviculture levy determined under section 5.3 and:
 - a. The variable cost to prepare the timber for sale if three years or more have passed since the timber was felled, or
 - b. The stumpage rate from Table 6-5 for the applicable species and forest zone if less than three years have passed since the timber was felled.

District/TSA 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 , or, authorizations for investigative purposes issued under the <i>Land Act</i> .	Ft. Nelson	\$ 836 /ha
	Mackenzie	\$ 797 /ha
	Peace	\$ 1031 /ha
	Rocky Mountain	\$ 1191 /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 use section 6.7.

6.7 Specific Licences to Cut

1. This section applies to:
 - a. Master licences to cut,
 - b. Occupant licences to cut, and
 - c. Forestry licences to cut :
 - i. Issued under section 47.6(3) of the *Act* in conjunction with an activity funded out of the BCTS account,
 - ii. Issued in conjunction with a works contract other than BCTS, or
 - iii. Issued for a fence line or protection of a fence line administered under the *Range Act*.
2. This section does not apply to:
 - a. Cutting authorities issued for any of the activities listed in Table 6-6 that have an area reserve stumpage rate in the following districts: Fort Nelson, Peace, Mackenzie, or Rocky Mountain, or
 - b. The proposed Site C reservoir and dam site, or
 - c. Projects where cruising of the timber to be harvested on any tenure listed in subsection (1) has been initiated for use in a full appraisal prior to November 1, 2013.
3. Unless otherwise directed under section 2.2.2, the stumpage rate for any tenure listed in subsection (1) issued on or after November 1, 2013, must be the stumpage rate prescribed in Table 6-3 for the smaller of the area of the forest district, timber supply area, region, or Area in which the entire cutting authority area for the tenure is located, plus the average basic silviculture cost¹ for all species for the **applicable Interior Area** in which the cutting authority area is located at the time the stumpage rate is determined.
4. Where the licensee will have a silvicultural obligation imposed by the Ministry then the basic silviculture cost is not added under subsection (3) of this section.
5. Where the timber felled on the cutting authority area of any tenure listed in subsection (1) will not be removed from the site the volume used for billing may be estimated using an alternate method of scale approved by the Minister.

¹ From the Interior Basic Silviculture Costs published quarterly and available on the Timber Pricing Branch website.

6.9 Cruise Based Stumpage Calculations

1. Pursuant to section 106 of the *Forest Act*, and subject to subsection 2 of this section, the amount of stumpage payable on Crown timber will be calculated using information provided by a cruise of the timber before it is cut where the timber is authorized for harvest:
 - a. Under a cutting authority issued or entered into prior to June 1, 2010 where:
 - i. the stumpage rate is adjustable,
 - ii. the Total Net Coniferous Volume of timber on the cutting authority area is comprised of 35% or more red and grey Mountain Pine Beetle (MPB) attacked Lodgepole pine¹, and
 - iii. timber harvesting has not started on the cutting authority, or,
 - b. Under a cutting authority issued or entered into on or after June 1, 2010 where:
 - i. the stumpage rate is adjustable,
 - ii. the licensee applied for a cutting permit and submitted an ADS to the district manager before June 1, 2010, and,
 - iii. the Total Net Coniferous Volume of timber on the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine¹, or,
 - c. Under a cutting authority issued or entered into on or after June 1, 2010 where:
 - i. the stumpage rate is adjustable,
 - ii. the licensee submitted an ADS to the district manager on or after June 1, 2010, and
 - iii. the Total Net Coniferous Volume in each cutblock within the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine¹, or,
 - d. Except as provided in subsection (4) of this section, under a timber sale licence with a fixed stumpage rate, which meets the criteria in paragraph (1)(c) (ii) and (iii) of this section, or a timber sale licence with a fixed stumpage rate where the executive director, BCTS has approved cruise based under section 106 of the *Act*.

¹ The absolute fraction to the nearest 0.1% derived from dividing the sum of the Red and Grey attack volumes in each cutblock by the total net coniferous cruise volume in each cut block (both from the appraisal summary report from the cruise compilation).

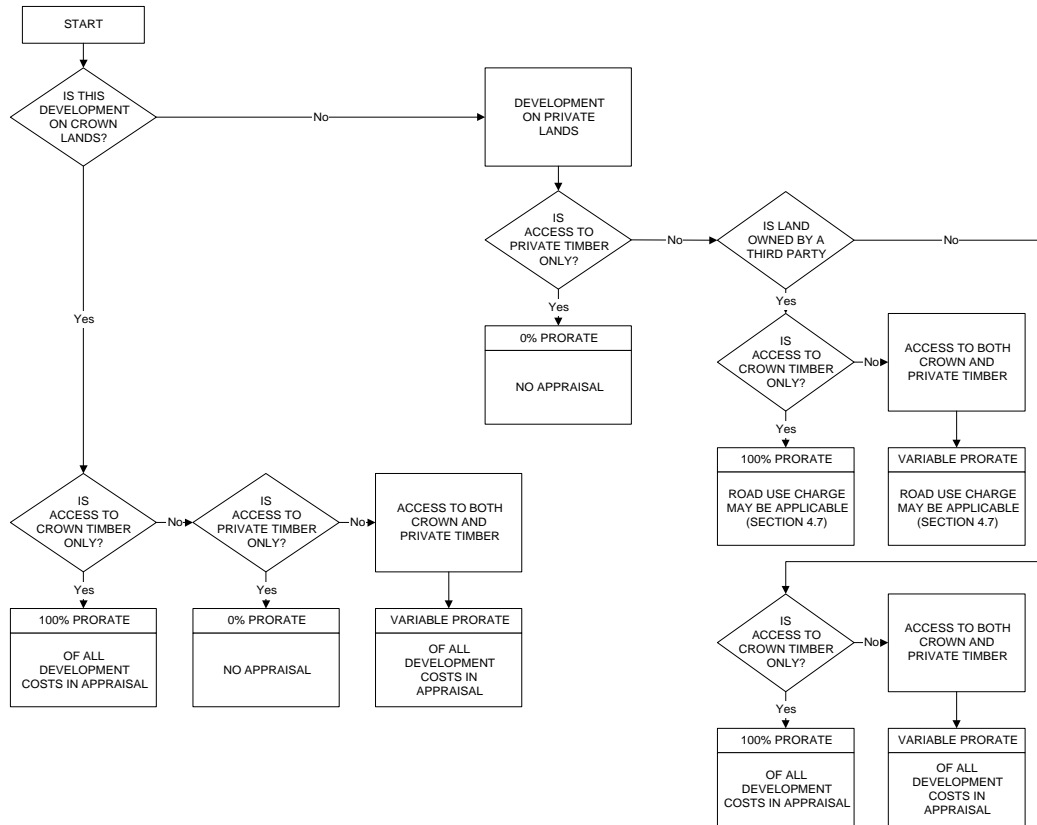
2. Except as provided in subsections (3) and (4) of this section, and section 5.1.3(4), the stumpage rate effective July 1, 2010 for a cutting authority where the stumpage payable is cruise based must be calculated as stand as a whole in accordance with the following:
 - a. the stumpage rate is determined using chapters 1, 2, 3, 4 and 5 of this manual,
 - b. the stumpage rate determined under paragraph (a) of this subsection must apply to the net merchantable volume on the cutting authority area.
3. Except as provided in subsections (4), (5) and (6) of this section, if, after a reappraisal under section 2.2.3 of this manual:
 - a. the Total Net Coniferous Volume in each cutblock within the cutting authority area is comprised of 35% or more red and grey MPB attacked Lodgepole pine, and
 - b. timber harvesting has not yet started on the cutting authority area,

The stumpage payable may be cruise based.

4. Where a timber sale licence was entered into under section 21 of the *Act* as that section was before it was repealed that provides for cutting permits and included a bonus bid, the stumpage payable will remain scale based.
5. Where an occupant licence to cut has been issued for the purposes of removing timber for agriculture, the stumpage payable must be scale based.
6. Where a non-replaceable forest licence (NRFL) or a forestry licence-to-cut (FLTC) was advertised on the basis of competition, and the successful bidder's bonus bid only applied to the sawlog portion of the volume advertised, the stumpage payable for cutting permits issued under these licences must remain scale based.
7. Where the sawlog volume of a cutting authority was advertised on the basis of competition and
 - a. The cutting authority was issued prior to June 1, 2010, and
 - b. The stumpage payable is cruise based,

The bonus bid must be prorated by the person who determines the stumpage rate using Tables 4-5 or 4-6 of this manual as per section 4.6.

Appendix II Development Cost Allocation



Crown Timber = Appraised timber including appraised Timber Licences

Private Timber = Non-appraised timber

Variable Prorate = A tributary-volume type prorate between appraised and non-appraised timber

Appendix III Relative Soil Moisture to Absolute Soil Moisture Conversion Table

Area	BEC		Relative Soil Moisture Regime Class (from field guide)							
	Zone	Subzone	0	1	2	3	4	5	6	7
SOUTH	BG	xh1	ED	ED	ED	ED	ED	SD	M	W
SOUTH	BG	xh2	ED	ED	ED	ED	ED	SD	M	W
SOUTH	BG	xh3	ED	ED	ED	ED	ED	SD	M	W
SOUTH	BG	xw1	ED	ED	ED	ED	ED	SD	M	W
SOUTH	BG	xw2	ED	ED	ED	ED	ED	SD	M	W
SOUTH	ESSF	dc1	VD	MD	MD	SD	SD/F	M	VM	W
SOUTH	ESSF	dc2	VD	MD	MD	SD	SD/F	M	VM	W
SOUTH	ESSF	dk	VD	MD	MD	SD	SD/F	M	VM	W
SOUTH	ESSF	dv	VD	MD	MD	SD	SD/F	M	VM	W
SOUTH	ESSF	mw	VD	MD	MD	SD	F	M	VM	W
SOUTH	ESSF	vc	MD	SD	SD	F	M	VM	VM	W
SOUTH	ESSF	vv	MD	SD	SD	F	M	VM	VM	W
SOUTH	ESSF	wc1	MD	MD	SD	F	M	M	VM	W
SOUTH	ESSF	wc2	MD	MD	SD	F	M	M	VM	W
SOUTH	ESSF	wc3	MD	MD	SD	F	M	M	VM	W
SOUTH	ESSF	wc4	MD	MD	SD	F	M	M	VM	W
SOUTH	ESSF	wk1	MD	MD	SD	F	M	M	VM	W
SOUTH	ESSF	wm	MD	MD	SD	F	F	M	VM	W
SOUTH	ESSF	xc	VD	VD	MD	MD	SD	M	VM	W
SOUTH	ESSF	xv	VD	VD	MD	MD	SD	F	M	W
SOUTH	ICH	dk	VD	VD	VD	MD	SD	M	VM	W
SOUTH	ICH	dw1	VD	VD	MD	SD	F	M	VM	W
SOUTH	ICH	dw2	ED	ED	VD	MD	SD	M	VM	W
SOUTH	ICH	mk1	VD	MD	MD	SD	F	M	VM	W
SOUTH	ICH	mk2	VD	MD	MD	SD	F	M	VM	W
SOUTH	ICH	mk3	VD	MD	MD	SD	F	M	VM	W
SOUTH	ICH	mw1	VD	MD	MD	SD	F	M	VM	W

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