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FEB 19 2015

To: Sharon Hadway, Regional Executive Director, West Coast Region
Heather MacKnight, Regional Executive Director, South Coast Region

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

Re: Amendment No. 4 to the *Coast Appraisal Manual (CAM)*

I hereby approve Amendment No. 4 to the Coast Appraisal Manual and attach a copy for your use.

The following section has been amended:

Section 2.2.2 (1) and (5)	Road right of ways that provide access to a timber sale licence need not be located in the same TSB or TFL.
Section 4.2.2.3.2(4)(6),(7) and (8)	Revised log grade source rules for cutting authorities in the Pacific TSA.
Section 7.2	Updated community forest and woodlot rate table.
Appendix I:	Rates have been added for an off highway lowbed and an off-highway logging truck.
Appendix VI:	Appraisal log dump removed from list.

This amendment will come into force on March 1, 2015. Copies of the amendment and the amended CAM are available at the following link:

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

Further amendments or revisions to this manual require my approval.

A handwritten signature in black ink that reads "Steve Thomson". The signature is written in a cursive style with a long horizontal line extending to the right.

Steve Thomson
Minister

pc: Tom Jensen, Assistant Deputy Minister, Timber Operations, Pricing and First Nations
Division
Murray Stech, Director, Timber Pricing Branch
Grant Loeb, Manager Timber Pricing, Timber Pricing Branch

2.2 Numbering System

The following exemplifies the numbering system that is used in this manual.

- 1. = Chapter
- 1.1 or 1.1.1.1 = Section
- 1.1.1.1 (2) = Section with subsection
- 1.1.1 (2)(a) = Section with subsection and paragraph.
- Table 4-2 = Table 2 within chapter 4

2.2.1 Calculation Conventions

1. Every calculation required to be performed will be performed to the full capacity of a calculating machine with the results truncated at four places of decimals and rounded to two places.
2. A result from 5 to 9 will be rounded upward and a result from 1 to 4 will be rounded downward.
3. Each calculation of a tenure obligation adjustment or specified operation adjustment expressed in dollars per cubic metre will be rounded to the nearest cent.
4. Where a value is specified as a limit, for example a constraint or a requirement for an equation,
 - a. the value will be treated as an absolute value, and
 - b. an actual measurement or record will not be rounded before use unless otherwise specified in this manual.

2.2.2 Cutblocks within a Cutting Authority Area

1. Except as provided for in subsection 2 and 5, all cutblocks within a cutting authority area must:
 - a. constitute a logical unit,
 - b. be tributary to the same appraised point of origin, and
 - c. be contained within the same timber supply block, or in the case of a cutting authority area under a tree farm licence, be contained within the same forest district.
2. A cutblock approved by the district manager under section 2.2.3:
 - a. is not constrained by 1 above,
 - b. must be located anywhere within the same timber supply area, or in the case of a tree farm licence or first nations woodland licence, be contained within the same

forest district, where the licensee is entitled to harvest under the licence that the cutting authority has been issued under, and

- c. is not eligible for an extended road amortization agreement.
3. Helicopter single standing stem selection as described in section 4.4.4 must not be combined with any other harvest method within the same cutting authority area.
4. Except as provided in subsection (3) of this section, there are no other restrictions on what types of harvest methods may be used in or which types of timber can be contained in a cutting authority area.
5. The road right of way that provides access to and is sold as part of a BCTS licence, is exempt from the requirement to be located within the same timber supply block or tree farm licence as the BCTS licence.

2.2.3 Coast Problem Forest Stands Pilot

1. A problem forest stand is a cutblock comprised completely of one or more of the following stand characteristics:
 - a. Poor timber types (old growth timber height class 3 or less), or
 - b. located at elevations greater than 700 metres, or
 - c. greater than 80% old growth hemlock/balsam.
2. A cutting authority considered for this pilot must be under a tree farm licence, a First Nations woodland licence or a replaceable forest licence and have one or more cutblocks meeting the criteria of subsection 1.
3. Licensees participating in this pilot must submit appraisal information allowing for the determination of the value differential in accordance with the requirements prescribed by the director.
4. Licensees must not exceed their value allocations for this pilot.
5. Cutting authority applications under this pilot will not be accepted after March 31, 2015.
6. The minister may terminate this pilot at anytime.

- source of the log grade percentages for that species.
- b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection (6) of this section.
6. a. Where the species being considered has a billing history record for cutting authority areas in that part of the tree farm licence area that lies within the geographic boundaries of the forest district that contains the cutting authority area being appraised or reappraised that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
 - b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection (7) of this section.
 7. a. Where the species being considered has a billing history record for cutting authority areas in a tree farm licence area that contains the cutting authority area being appraised or reappraised that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
 - b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection (8) of this section.
 8. a. Where the species being considered has a five-year billing history for cutting authority areas in a tree farm licence area that contains the cutting authority area being appraised or reappraised, and that record includes at least 100 m³ of scale for that species then that billing history record will be the source of the log grade percentages for that species.
 - b. Where there is no such billing history record, the person determining the stumpage rate will use the log grade percentages for that species from the cruise compilation.

4.2.2.3.2 Log Grade Percentages for a Cutting Authority Area Within a Timber Supply Area

Where the cutting authority area being appraised or reappraised is entirely within the geographic boundaries of a single timber supply area, the log grade percentages for the cutting authority area will be determined in the following manner:

1. a. Where at least eighty percent of the timber in the cutting authority area is second growth coniferous timber, the log grade percentages for that cutting authority area will be determined in accordance with the requirements of subsection 4.2.2.2(5).
 - b. Where at least eighty percent of the timber in the cutting authority area is not second growth coniferous timber the person determining the stumpage rate will proceed to subsection 2 of this section.

2. a. Where the cutting authority area is entirely within the geographic boundaries of one or more timber licences, the person determining the stumpage rate will proceed to subsection 3 of this section.
- b. Where the cutting authority area is not entirely within the geographic boundaries of one or more timber licences, the person determining the stumpage rate will then proceed to subsection 4 of this section.
3. a. Where the cutting authority area being appraised or reappraised is authorized for harvest under a cutting permit issued under a timber licence, and the species being considered has a billing history record for cutting permits issued under that timber licence and any other timber licence with which that licence has been amalgamated and approved by the district manager that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
- b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 6 of this section.
4. a. **Except for the Pacific timber supply area (44),** where the cutting authority area in a timber supply block being appraised or reappraised is authorized for harvest under a cutting permit issued under either a forest licence or licence to cut, and the species being considered has a billing history record for cutting permits issued under the licence authorizing harvest in that same timber supply block and associated road permits, and that billing history record meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
- b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 5 of this section.
5. a. Where the cutting authority area in a timber supply area being appraised or reappraised is authorized for harvest under a cutting permit issued under either a forest licence or licence to cut, and the species being considered has a billing history record for the cutting permits issued under the licence authorizing harvest in that same timber supply area and associated road permits and that billing history record meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
- b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 6 of this section.
6. a. **Where the cutting authority area is within the geographic boundaries of the Pacific timber supply area (44), the person determining the stumpage rate will proceed to subsection 7 of this section.**

- b. Where the cutting authority area is not within the geographic boundaries of the Pacific timber supply area (44), the person determining the stumpage rate will proceed to subsection 9 of this section.
- 7.
- a. Where the cutting authority area being appraised or reappraised is authorized for harvest under a licence to cut or under a cutting permit issued under either a forest licence, timber licence or licence to cut, and the species being considered has a billing history record for all cutting authority areas that have been authorized for harvest within the district in the Pacific timber supply area (44) that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
 - b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 8 of this section.
- 8.
- a. Where the cutting authority area being appraised or reappraised is authorized for harvest under a licence to cut or under a cutting permit issued under either a forest licence, timber licence or a licence to cut, and the species being considered has a five-year billing history for cutting authority areas that have been authorized for harvest within the district in the Pacific timber supply area (44), and that record includes at least 100 m³ of scale for that species then that billing history record will be the source of the log grade percentages for that species.
 - b. Where there is no such billing history record, the person determining the stumpage rate will use the log grade percentages for that species from the cruise compilation.
- 9.
- a. Except for the Pacific timber supply area (44), where the cutting authority area being appraised or reappraised is authorized for harvest under a licence to cut or under a cutting permit issued under either a forest licence, timber licence or licence to cut, or a First Nations woodland licence and the species being considered has a billing history record for all cutting authority areas that have been authorized for harvest in that timber supply area that meets the criteria of subsection 4.2.2.2(4), then that billing history record will be the source of the log grade percentages for that species.
 - b. Where there is no such billing history record, the person determining the stumpage rate will proceed to subsection 10 of this section.

- 10. a. **Except for the Pacific timber supply area (44),** where the cutting authority area being appraised or reappraised is authorized for harvest under a licence to cut or under a cutting permit issued under either a forest licence, timber licence or a licence to cut, or a First Nations woodland licence and the species being considered has a five-year billing history for cutting authority areas in a timber supply area that contains the cutting authority area being appraised or reappraised, and that record includes at least 100 m³ of scale for that species then that billing history record will be the source of the log grade percentages for that species.
- b. Where there is no such billing history record, the person determining the stumpage rate will use the log grade percentages for that species from the cruise compilation.

4.2.2.4 Damaged Timber

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

4.2.3 Stand Selling Price

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

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

4.2.3.1 Stand Selling Price Calculation

1. Subject to subsection 2 of this section:
 - a. a species grade value for a species of timber in a cutting authority area is the product of the percentage of that grade of that species as derived from section 4.2.2 multiplied by the average log market value for that grade of that species of timber,
 - b. a species selling price for a species of timber in a cutting authority area is the sum of all of the species grade values for that species of timber in the cutting authority area,
 - c. the rounded species selling price is the species selling price for a species of timber in a cutting authority area rounded to the nearest cent,
 - d. a species value is the product of the rounded species selling price multiplied by the species net cruise volume in the cutting authority area, and
 - e. the stand selling price is the quotient of the sum of all of the species values in a cutting authority area divided by the total net cruise volume of all of the species in the cutting authority area.
2. For the purposes of determining a stand selling price:
 - a. in the Pemberton, Yale and Nahatlatch timber supply blocks:
 - i. all spruce is deemed to be Engelmann spruce, and
 - ii. the hemlock and balsam species grade average log market values will be used to determine the species grade values for all spruce in the cutting authority area,
 - b. where outside the Pemberton, Yale and Nahatlatch timber supply blocks:
 - i. Engelmann spruce is identified as the predominant spruce species in the cruise of the cutting authority area, or
 - ii. the district manager determines that Engelmann spruce is the predominant spruce species in the cutting authority area,

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

4.2.4 Haul Distance

1. Haul distance does not contribute to the calculation of a stumpage rate but must be determined and reported on the appraisal data submission.
2. The haul distance for a cutting authority area being appraised or reappraised shall be determined as follows:
 - a. For each cutblock in the cutting authority area from which any timber may be removed by road from that cutblock:
 - i. determine for that cutblock the point that is the closest point on a road to the geographical centre of the cutblock,
 - ii. determine the shortest distance by road from the point on the road determined in subparagraph (i) of this paragraph to the appraisal log dump for that cutblock, measured in kilometres (km) and rounded to the nearest 0.1 km,
 - iii. weight for that cutblock the distance determined in subparagraph (ii) of this paragraph by the net cruise volume of timber on the cutblock.
 - b. Determine the average weighted distance of all the cutblocks for which a weighted distance was determined in subparagraph (iii) of paragraph (a), rounded to the nearest 0.1 km.
 - c. Haul distance is the average weighted distance calculated in paragraph (b) of this subsection plus the rehaul distance in the case of inland water transportation as described in section 4.4.2.
 - d. Where a rehaul is required for inland water transportation, the appraisal log dump is the final log dump at the end of the rehaul.

4.2.5 Marine Log Transportation

4.2.5.1 Point of Appraisal

1. The Points of Appraisal are:

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

4.2.5.2 Appraisal Log Dump

1. Except for those appraisal log dumps in Appendix VI that are listed in more than one district, for subsections 2, 3, 4 a) and 4 b) below, the appraisal log dump must be located in the same forest district as the cutting authority area.
2. Except as provided in subsection 3 of this section, where any timber may be removed from any part of a cutblock by road, the appraisal log dump for that cutblock that must be used in the appraisal or reappraisal of the cutting authority area is the closest location by road listed in Appendix VI to that cutblock.
3. Where any timber may be removed from any part of a cutblock by road, and a log dump exists or will exist during the removal of the timber from the cutblock at a location that is closer to the cutblock than any location listed in Appendix VI, then that log dump location is the appraisal log dump for that cutblock that must be used in the appraisal or reappraisal of the cutting authority area.
4. a. When no timber may be removed from any part of a cutblock by road, and except as provided in paragraph (b) of this subsection, the appraisal log dump for that cutblock that must be used in the appraisal or reappraisal of a cutting authority area is the closest location to that cutblock listed in Appendix VI to which logs may be yarded by helicopter or A-frame and placed in water.

b. If a location to which timber will be yarded by helicopter or A-frame from the cutblock and placed in water is closer to the cutblock than any location listed in Appendix VI, then that location must be used as the appraisal log dump for that cutblock in the appraisal or reappraisal of the cutting authority area.

4.2.5.3 Log Towing

1. a. The information in Table 4-5 is not used in the calculation of a stumpage rate but must be used by the licensee when completing the appraisal data submission.

b. Where the appraisal log dump is at a towing point of origin listed in Table 4-5, that towing point of origin must be reported in the appraisal data submission.

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

4.2.5.4 Log Barging

1. a. The information in Table 4-6 is not used in the calculation of a stumpage rate but must be used by the licensee when completing the appraisal data submission.
- b. Where the appraisal log dump is at a barging point of origin listed in Table 4-6, that barging point of origin must be reported in the appraisal data submission.
- c. Where the appraisal log dump lies between two barging points of origin, both barging points of origin must be reported in the appraisal data submission.

Table 4-5 Towing Points of Origin

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

P/A = Point of Appraisal as follows:

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

Table 4-6 Barging Points of Origin

Code	Point of Origin	P/A	Code	Point of Origin	P/A
BACK	BARR CREEK	A	BOIN	BOSWELL INLET/SECURITY BAY	G
BLBY	BLOWHOLE BAY	A	CAIS	CAMPBELL ISLAND	G
CLCK	CLEAGH CREEK	A	DIBY	DINAN BAY	G
COHA	COAL HARBOUR	A	ELHA	ELCHO HARBOUR	G
CYRV	CYPRE RIVER	A	FEBY	FERGUSON BAY	G
EAIN	EASY INLET	A	RIIH	HEAD OF RIVERS INLET	G
ESIN	ESPINOSA INLET	A	SBEH	HEAD OF SOUTH BENTINCK ARM	G
GORV	GOLD RIVER	A	HNRV	HONNA RIVER	G
HEBY	HEAD BAY	A	KMBY	KEMANO BAY	G
BESH	HEAD OF BEDWELL SOUND	A	KHIN	KHUTZEYMATEEN INLET	G
HENO	HECATE CHANNEL -NOOTKA	A			
HOLB	HOLBERG	A	KIMS	KIMSQUIT	G
HORV	HOUSTON RIVER	A	KLEM	KLEMTU	G
HUCK	HUSHAMU	A	KUIN	KUMEALON INLET	G
INGE	INGERSOLL	A	KWBY	KWATNA BAY/MINERVA CREEK	G
JELA	JEUNE LANDING	A	KWRV	KWINAMASS RIVER	G
KEIN	KENDRICK INLET	A	MCBY	McCLINTON BAY	G
KOHA	KOPRINO HARBOUR	A	MOIN	MOSES INLET/INRIG BAY	G
KUCV	KULTUS COVE	A	NAHA	NADEN HARBOUR	G
MCKK	McCURDY CREEK	A	NABY	NASS BAY	G
MORV	MOOYAH RIVER	A	NORV	NOOTUM RIVER	G
OUIV	OUOUKINSH INLET	A	OCFA	OCEAN FALLS	G
PLHA	PLUMPER HARBOUR	A	POIS	PORCHER ISLAND	G
PTEL	PORT ELIZA	A	PRRU	PRINCE RUPERT	G
RACV	RANKIN COVE	A	RESO	RENNELL SOUND	G
STCV	STEAMER COVE	A	REPA	RENNERS PASSAGE	G
TLRV	TLUPANA RIVER	A	SCRV	SCOTIA RIVER	G
TSRV	TSOWWIN	A	SWIN	SEWELL INLET	G
WIHA	WINTER HARBOUR	A	SKIN	SKIDEGATE INLET	G
ZEBA	ZEBALLOS	A	SOBY	SOUTH BAY	G
ALAR	ALICE ARM	G	STEW	STEWART	G
ALBY	ALLIFORD BAY	G	TASU	TASU SOUND	G
BEAN	BEATTIE ANCHORAGE	G	TUIN	TUCK INLET	G
BECO	BELLA COOLA	G	WECK	WEEWANIE CREEK	G
BIBY	BISHOP BAY	G	WOCH	WORK CHANNEL	G

P/A = Point of Appraisal as follows:

A = ALBE = Alberni
 G = GAMB = Gambier Island

4.3 Estimated Winning Bid (EWB) Equation

1. The equation used in the calculation of the estimated winning bid (EWB) is:

$$\begin{aligned} \text{EWB} = & [-26.64 + 0.681(\text{ALP}/\text{CPIF}) + 17.37(\text{CEDARCYPRESS}) + 12.06(\text{DFIR2G}) - \\ & 0.243(\text{SLOPE}(1\text{-HELI})) - 32.25 (\text{HELI}) + 9.71(\text{VPH}/1000) + \\ & 3.55(\text{Ln}(\text{PIECESIZE})) - 0.0758(\text{LOCATION}) - 5.41(\text{GAMBDIST400}) + \\ & 1.17(\text{Ln}(\text{VOL}/1000)) + 9.94(\text{CRUISE}) + 1.57(\text{DISTAVGNBID}) - \\ & 5.18(\text{ISOLATED}) - 3.29(\text{LUMPSUM})] \text{ CPIF} \end{aligned}$$

2. The EWB shall be rounded to 2 decimal places.
3. Where the calculated EWB is less than \$0.25, the EWB shall be \$0.25.

4.4 Specified Operations

1. The specified operations in sections 4.4.1 to 4.4.7 may be considered in an appraisal or a reappraisal.

4.4.1 Skyline

1. A skyline adjustment expressed in $\$/\text{m}^3$ may be calculated for those areas within a cutblock that:
 - a. are 600 metres or greater measured in a straight line horizontal distance from the centre of the closest possible landing or place where a landing may be located, and
 - b. are yarded by skyline.
2. The skyline adjustment may be calculated by adding the volume of timber to which the skyline may apply to the volume of timber to be helicopter yarded as prescribed in section 4.2.

4.4.2 Inland Water Transportation

1. An inland water transportation adjustment will be determined for that part of the cutting authority area where timber must be towed on Great Central, Owikeno or Powell Lake or any other inland water authorized by the person that determines the stumpage rate in order for the timber to be transported to the point of appraisal.
2. The adjustment shall be \$4.41 per cubic metre.

4.4.3 Clayoquot Sound Operating Costs

1. For the purposes of this section the Clayoquot Sound area is:

That part of the Hesquiat Peninsula, Esowista Peninsula, and the islands, sea and all lands and waters draining into the Pacific Ocean from the height of land between Escalante Point and Quisitis Point.

2. An adjustment of $\$6.11/\text{m}^3$ will be included in an appraisal or a reappraisal of a cutting authority area that is located entirely within the Clayoquot Sound area.

4.4.4 Helicopter Single Standing Stem Selection

1. In this manual helicopter single standing stem selection means the harvesting of standing single trees that have been marked, limbed, undercut and wedged and then broken from the stump and removed using a helicopter.
2. This adjustment may only be included in the appraisal or reappraisal of a cutting authority area if:
 - a. helicopter single standing stem selection is the only harvest method that has been permitted by the district manager to harvest timber in the cutting authority area, and
 - b. helicopter single standing stem selection is also, the only harvest method used to harvest all of the timber in the cutting authority area.
3. The adjustment for helicopter single standing stem selection includes the cost of marking, climbing, limbing, undercutting, wedging, breaking and removal of the tree by helicopter.
4. The adjustment for helicopter single standing stem selection is \$37.78/m³.

4.4.5 Destumping for Root Disease Control

1. Destumping is the activity of:
 - a. lifting and rolling of stumps out of the ground to lessen soil disturbance and root breakage,
 - b. destumping may also include the shaking of stumps to remove soil, and
 - c. raking the area immediately around the hole to remove any large root pieces.
2. A destumping adjustment will be determined for that part of the cutting authority area where destumping for root disease control is required. The treatment area must be accurately delineated and shown on the appraisal map and be included in the site plan.
3. The adjustment shall be \$1,114.00 per hectare of area that will be destumped.

4.4.6 Tree Crown Modification

1. Where the protection of trees is deemed necessary by a forest professional to achieve forest management objectives, a tree crown modification adjustment may be considered in the appraisal or reappraisal.
2. For the purposes of subsection (1), tree crown modification means the removal of 25% to 50% of the tree crown of standing trees by spiral pruning or tree topping.
3. The adjustment is the sum of the costs for all of the trees that are modified divided by the total net cruise volume of the cutting authority area.

4. The area requiring tree crown modification must be shown or described on the appraisal map and the calculations in support of the appraisal submission must be available for inspection upon request by the district manager.
5. The gross number of potential stems per hectare to treat will be based on the cruise stand table for the timber type that the treatment area is located within or is adjacent to. The potential stems excludes dead and deciduous trees.
6. The rate for tree crown modification:
 - a. for each old growth coniferous tree that is modified is \$42.11, and
 - b. for each second growth coniferous tree that is modified is \$19.95.

4.4.7 Ecosystem Based Management Operating Costs

1. Except as provided in subsection (2) of this section, the ecosystem based management adjustment may be considered in the appraisal of a cutting authority area that lies wholly within that part of the Coast Area when the licensee has an approved forest stewardship plan which conforms with the objectives listed under the Land Use Order to which land use objectives have been made applicable by orders made by the Minister of Natural Resource Operations pursuant to Section 93.4 of the *Land Act* entitled:
 - a. South Central Coast Order, dated July 27, 2007,
 - b. Central and North Coast Order, dated December 19, 2007, and
 - c. Haida Gwaii Land Use Objectives Order, dated December 16, 2010.
2. The ecosystem based management adjustment shall not be considered in the appraisal or reappraisal of a cutting authority area that is authorized for harvest under:
 - a. a woodlot licence referred to in section 1(3) of the South Central or Central and North Coast orders,
 - b. a community forest agreement referred to in section 1(4) of the South Central or Central and North Coast orders, or
 - c. the tree farm licence or non-replaceable forest licences that are referred to in section 1(4) of the South Central Coast Order.
3. The adjustment shall be \$2.75 per cubic metre.

4.5 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 adjustments that are applicable to the appraisal or reappraisal of the cutting authority.

2. Expressed as an equation:

$$\text{FEWB} = \text{EWB} - \text{SOA}$$

Where:

EWB = The Estimated Winning Bid determined under section 4.3.

SOA = The sum of specified operations adjustments in an appraisal or a reappraisal of a cutting authority area as may be calculated under sections 4.4.1 through 4.4.7 and expressed in $\$/\text{m}^3$.

3. Where the FEWB calculated is less than $\$0.25/\text{m}^3$, then the FEWB shall be $\$0.25/\text{m}^3$.

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7.2 Community Forest Agreements and Woodlot Licences

1. a. Except as provided for under section 7.2.1, the sawlog stumpage rate (\$/m³) for each species of coniferous timber and zone harvested under a cutting authority issued under a community forest agreement or woodlot licence and their associated road permits will be:

Species	Zone	
	Northern Coast	Southern Coast
Balsam	\$0.25	\$0.43
Hemlock	\$0.35	\$0.72
Cedar	\$0.60	\$2.06
Cypress	\$0.25	\$0.64
Fir	\$0.25	\$1.57
Spruce	\$0.25	\$0.45
Other	\$0.45	\$1.08

- b. The Northern Coast Zone is the Haida Gwaii Forest District, Coast Mountain (North Coast) Forest District and that part of the North Island-Central Coast Forest District within TFL 25 and all Crown land within the Mid-Coast Timber Supply Area boundaries.
- c. The Southern Coast Zone is the Coast Area except the Northern Coast Zone as defined in 1(b).
- d. The stumpage rate determined under paragraph (a) of this subsection shall be redetermined on March 1st of each year in accordance with this subsection.
2. The sawlog stumpage rate for each species of coniferous timber harvested under a salvage permit issued under a woodlot licence is the rate prescribed in the table in section 7.2(1)(a) for the zone in which the salvage permit applies.
3. Section 7.3, 7.4, 7.4.1, 7.5 and 7.6 do not apply to community forest agreements, woodlot licences and associated road permits.

7.2.1 Woodlot Licences with Cutting Authorities under MPS

1. Where a cutting authority has been issued under a woodlot licence with an effective date after November 30, 2008, with an extended road amortization agreement that has been entered into under section 5.3.2.1, the stumpage rate will be calculated using the market pricing system.
2. The sawlog stumpage rate for a road permit is calculated using the procedures in section 7.3 until a cutting permit has been issued with tabular rates as specified under section 7.2(1)(a). Stumpage rates for road permits will also change to tabular rates on that date.

* includes 10% additional cost - 5% for brush guard package and 5% for hydraulic thumb.
 **Average from 2011-2012 and 2013-2014 rates used.

“All Found” includes all costs, expenses and profits necessary for the project work being undertaken with an allowance for operator’s wages plus benefits (does not include a swamper). Operators are expected to report to the project site at their own expense unless there is an agreement to the contrary due to project location. Rates include insurance and WorkSafeBC costs.

¹“BLUE BOOK CATEGORY” is used to locate equipment that is not listed in the “Blue Book Models” column above for the specified hourly rate, but which may be found instead in the Blue Book. Categories as applicable provide:

- Capacity in cubic feet per minute, diameter or tonnes (Drills, Rollers, Cranes)
- Capacity in yards/cubic metres (Concrete Trucks, Gravel Dump Trucks, Loaders)
- Number of axles and/or gross vehicle weight in kilograms (Logging Trucks, Lowbeds)
- Operating weight in pounds or tonnes (Excavators, Skidders, Articulated Trucks)
- Power in flywheel horsepower (Crawler Tractors, Graders)

b. Miscellaneous Equipment Rates (Source: 2012-2013 Blue Book)

EQUIPMENT DESCRIPTION	BLUE BOOK SECTION NUMBER	BLUE BOOK CATEGORY	*\$/HOUR
Concrete Mixer	4.4	6 cu ft (0.17 m ³)	7.69
Concrete Vibrator	4.3	12' to 21' (3.65m – 6.10m)	5.11
Powersaw	11.1	Over 20+ inch blade; over 57cm ³	3.65

*Labour not included

c. Other All Found Equipment Rates

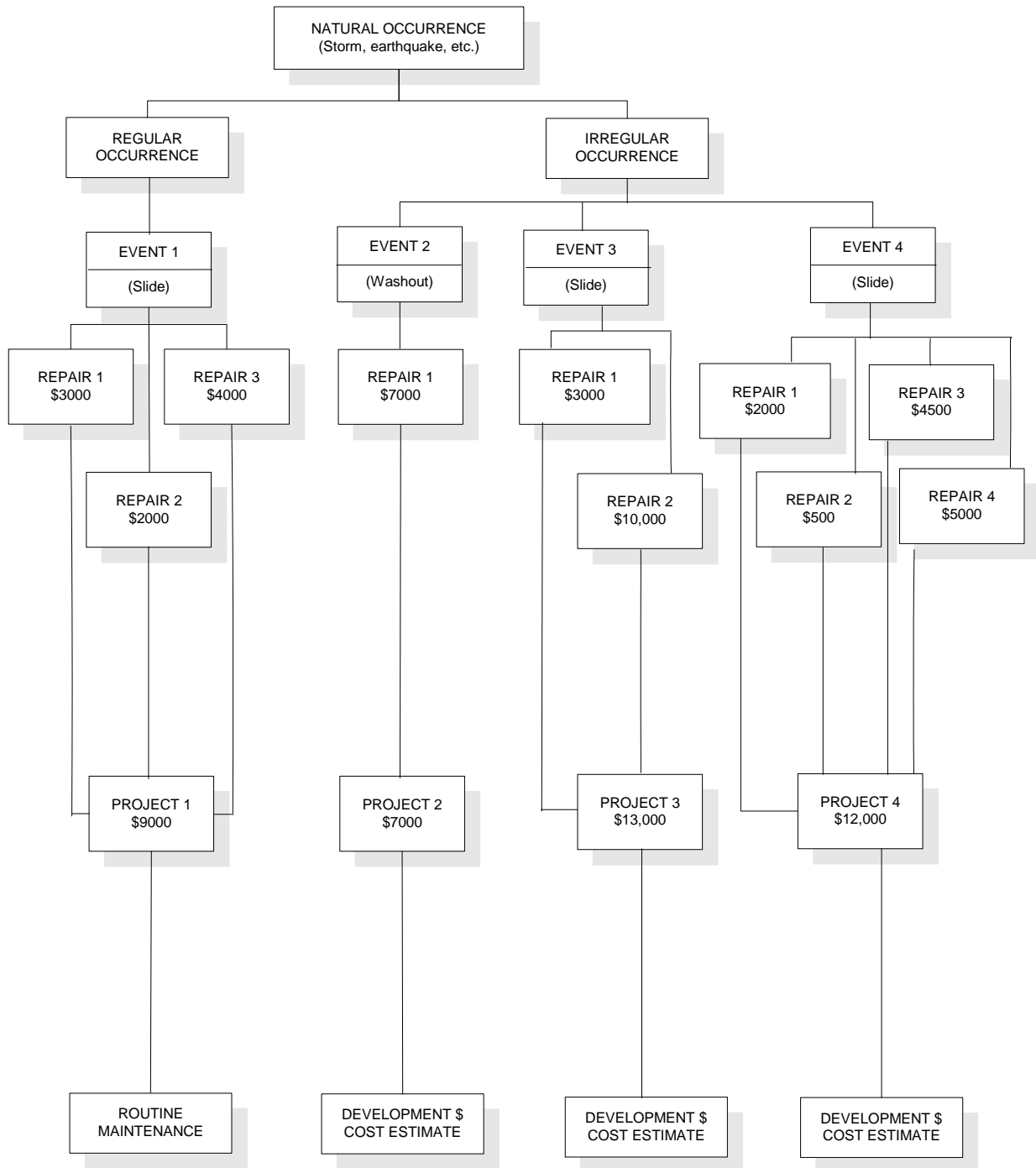
EQUIPMENT DESCRIPTION	\$/HOUR
Off Highway Lowbed	175.00
Truck - Logging (Off-Highway)	175.00

d. Wage Rates (Source: 2010-14 United Steelworkers agreement rates)

LABOUR DESCRIPTION	GROUP	*\$/HOUR
Labourer	Group I	36.04
Roadman	Group II	36.33
Crib/Culvert Maker, Powderman	Group VII	38.16
Landingman	Group VIII	38.65
Rockdriller & Powderman (for load & blast only)	Group VII & XI	83.09
Bridgeman	Tradesman	47.25
Faller, including powersaw cost		68.04

*Effective June 15, 2012. Includes 40% for payroll loading

Appendix II Reconstruction and Replacement



District: North Island - Central Coast					
Location	ALD Code	Co-ordinates (Approximately)			
		Latitude		Longitude	
		Degrees	Minutes	Degrees	Minutes
Thompson Sound DLS	THSD	50	48	126	01
Tribune Channel, London Point	TCLP	50	47	126	07
Wakeman Sound	WAKE	51	02	126	31
Walbran Island, Taylor Bay	WITB	51	30	127	36
Wallace Bay - Cousins Inlet	WBCI	52	17	127	45
Watson Island - Turnbull Cove	WITC	50	57	126	49
West Cracroft Island - Port Harvey	WCPH	50	34	126	17
West Cracroft Island - Potts North	WCPN	50	34	126	28
Yeo Cove, Yeo Island	YCYI	52	18	128	11

Appendix VII Definition of 'Bankheight' Tabular Road Categories

OMLB	Other Material – Local Ballast Other material and rock/hardpan that does not require drilling and blasting - ballast/surface with local material (i.e., no truck haul) - includes patch ballasting and surfacing with endhaul material.
OMPR	Other Material – Pit Run Ballast Other material that does not require drilling and blasting and surfacing is pit run material (i.e., not drilled and blasted) or stored end haul material, requiring truck haul.
OMRB	Other Material – Rock Ballast Other material that does not require drilling and blasting and surfacing is quarried (i.e., drilled and blasted) rock.
TOE	Low rock face height. Rock (including hardpan) that must be drilled and blasted and results in up to 1.50 metre inside rock face. Includes ditchlines or boulders less than 1.50 metres in height that require drilling and blasting.
MRK	Medium rock face height. Rock (including hardpan) that must be drilled and blasted and results in a 1.51 to 3.00 metre inside rock face. Includes boulders between 1.51 and 3.00 metres in height that require drilling and blasting.
HRK	High rock face height. Rock (including hardpan) that must be drilled and blasted and results in a 3.01 to 4.50 metre inside rock face. Includes boulders between 3.01 and 4.50 metres in height that require drilling and blasting.
XRK	Rock (including hardpan) that must be drilled and blasted and results in a 4.51 to 6.00 metre inside rock face. Includes boulders between 4.51 and 6.00 metres in height that require drilling and blasting.
XXRK	Rock (including hardpan) that must be drilled and blasted and results in a 6.01 to 7.50 metre inside rock face. Includes boulders between 6.01 and 7.50 metres in height that require drilling and blasting.