

Ministry of Forests and Natural Resource Operations

Minister's Office

File: 195-30/CAPP Ref: 205320

MAR 2 7 2014

- 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. 2 to the Coast Appraisal Manual

I hereby approve Amendment No. 2 to the *Coast Appraisal Manual* and attach a copy for your use. The following section has been amended:

Section 1.1	Revisions to district and region naming as a result of the planned administrative boundary changes.
Section 2.1 (1)	Revisions to district and region naming as a result of the planned administrative boundary changes.
Section 4.4.6	Updated Tree Crown Modification rates.
Section 5.8.1	Updated market logger road cost variables.
Section 7.2 & 7.9.1	Revisions to district and region naming as a result of the planned administrative boundary changes.
Table 4-2	Revisions to district and region naming as a result of the planned administrative boundary changes.
Table 5-1	Updated road cost estimates.
Table 5-5	Revisions to district and region naming as a result of the planned administrative boundary changes.
Appendix I	Updated equipment and labour rates.
Appendix VI	Updated appraisal log dump.

This amendment will come into force on April 1, 2014. Further amendments or revisions to this manual require my approval.

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Steve Thomson Minister

Attachment

 pc: Susanna Laaksonen-Craig, Executive Director, Timber Operations, Pricing and First Nations Division
 Murray Stech, Director, Timber Pricing Branch, Timber Operations, Pricing and First Nations Division



Ministry of Forests, Lands and Natural Resource Operations

#### MANUAL REVISION TRANSMITTAL

| FOR FURTHER INFORMATION OR IF YOU HAVE A CHANGE OF                                                         | MANUAL TITLE                            |               |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------|
| ADDRESS, PLEASE CONTACT:                                                                                   | Coast Appraisal Manual                  |               |
| George Silvestrini<br>Senior Timber Pricing Forester (Coast)                                               | AMENDMENT                               | ISSUE DATE    |
| Timber Pricing Branch                                                                                      | Amendment No. 2                         | April 1, 2014 |
| Ministry of Forests, Lands and Natural Resource Operations<br>1 <sup>st</sup> Floor, 1520 Blanshard Street | MANUAL CO-ORDINATOR                     |               |
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| FAX: 250 - 387-8393                                                                                        | Murray Stech                            |               |
|                                                                                                            | Director, Timber Pricir                 | ng Branch     |

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

| ACTION<br>(Remove/Insert) | (VOL.) CHAPTER-SECTION-SUBJECT<br>TABLE OF CONTENTS | PAGE(S)                 | COMMENTS             |
|---------------------------|-----------------------------------------------------|-------------------------|----------------------|
| Remove<br>Insert          | Chapter 1                                           | 1-6                     | After Chapter 1 Tab  |
| Remove<br>Insert          | Chapter 2                                           | 1-2                     | After Chapter 2 Tab  |
| Remove<br>Insert          | Chapter 4                                           | 5-6<br>23-24            | After Chapter 4 Tab  |
| Remove<br>Insert          | Chapter 5                                           | 11-12<br>15-16<br>21-24 | After Chapter 5 Tab  |
| Remove<br>Insert          | Chapter 7                                           | 1-4<br>11-14            | After Chapter 7 Tab  |
| Remove<br>Insert          | Appendix                                            | 1-4<br>13-18<br>23-24   | After Appendix Tab   |
| INSERT                    | Letter from Minister and Transmittal Sheet          |                         | After Amendments Tab |

# **1** Definitions and Interpretations

## **1.1 Definitions and Interpretations**

In this manual:

"Act" means Forest Act;

"Anniversary date" means the annual recurrence of the month and day when the term of the cutting authority began;

"Appraisal Data Submission (ADS)" means the information required by the person who determines the stumpage rate to determine the stumpage rate including a forest professional's signed submission in the form required by the director and any other information required by the regional manager or district manager;

"**Billing history record**" means a record of log scale data derived from a record kept by the Timber Pricing Branch of log scale data reported on stumpage invoices issued by the Timber Pricing Branch for timber scaled under section 94 of the *Act*; and for greater certainty does not include billing data from cruise based cutting authorities; but for any cutting authority with an effective date prior to October 1, 2012, the billing history record to be used in a minister-directed reappraisal under section 3.3.7 shall include billing data from cruise based cutting authorities;

"BCTS" means BC Timber Sales;

"**BCTS licence**" means a timber sale licence entered into under section 20 of the *Act* or section 21 as it was before it was repealed;

"Bonus Bid" means a bonus bid described in section 103(1)(d) of the Act;

"Bonus Offer" means a bonus offer described in section 103(2) of the Act;

"Coast Area" means West Coast and South Coast forest regions or Coast Forest Region.

**"Coast Mountain Forest District"** means that part of the Coast Mountain forest district that is within the geographic boundaries of the North Coast timber supply area.

"**Coastal cruise based billing pilot**" means the cruising and billing method used for qualifying cutting authorities and is described in the Timber Pricing Branch document entitled "Coastal Cruise Based Billing Pilot". All data elements for the appraisal data submission will be taken from the Call Grade Net Factor (CGNF) cruise compilation. Where suitable data is not available from the CGNF (such as the volume per 10m log and volume per hectare) it will be obtained from the loss factor cruise compilation,

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

"Controlled Recreation Area" means controlled recreation area as defined in the *Resort Timber Administration Act*; "**Cruise based billing**" 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:

- a. a cutting permit issued under a forest licence, a timber sale licence, a timber licence, tree farm licence, a community forest agreement, a community salvage licence, a woodlot licence, a master licence to cut, a forestry licence to cut, or First Nations woodland licence;
- b. a timber sale licence that does not provide for the issuance of a cutting permit,
- c. all other licences to cut, or
- d. a road permit;

"**Cutting authority area**" means the area where timber may be harvested under authority of;

- a. a cutting permit,
- b. a timber sale licence that does not provide for the issuance of a cutting permit,
- c. a licence to cut, or
- d. a road permit;

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

"Detailed engineering" means non-tabular;

"**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,

a. the date the stumpage rate is determined when required for advertising for competitive award, or

b. the effective date of the cutting authority when the stumpage rate is determined for a cutting permit or a direct award licence;

"**Executive Director, BCTS**" means Executive Director, BCTS or Executive Director, BCTS' designate;

**"Forest Professional"** means a Registered Professional Forester (RPF) or 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;

"Harvest Area" means the area indicated for harvest on an appraisal map submitted by the licensee;

"Helicopter Selection" means the harvesting of single trees within standing residual timber that have been felled and then removed using a helicopter;

"**Hogged Tree Material**" means tree residues or by-products that have been shredded into smaller fragments by mechanical action and is made from post-harvest material where a waste assessment has been made. Where the post-harvest material is removed from an area that is or was a cruise based billing cutting authority, a waste assessment is not required;

"**Immature coniferous timber**" means coniferous timber that is younger than 121 years old;

"Licensee" means the holder of a cutting authority;

"**Low grade**" means grades 'X' and 'Y' of all species and 'U' grade hemlock and balsam;

"**Main Access Road**" means a long-term (i.e., in use for more than ten years) mainline road that is tributary to the appraised cutting authority area, or is used to transport bulk fuels, supplies, equipment or harvesting crews necessary to carry out day-to-day harvesting activities on that area, and has an average stabilized subgrade width greater than seven metres;

"Manual" means Coast Appraisal Manual;

"Mature coniferous timber" means coniferous timber that is 121 years old or older;

"Minister" means Minister of Forests, Lands and Natural Resource Operations;

"Ministry" means Ministry of Forests, Lands and Natural Resource Operations;

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

"Old growth coniferous timber" means coniferous timber that is 141 years old or greater;

"**Problem forest stands**" means a cut block approved by the district manager for inclusion in the coast problem forest stand pilot project under section 2.2.3;

"**Regional manager**" means regional executive director of the Ministry or except for section 2.1.1(1)(a), regional executive director's designate;

"**Regulations**" means regulations under the *Act*;

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

"**Road Permit**" means road permit or the timber mark for a road permit that is associated with the applicable tenure listed in Section 115(1) of the *Act*;

"**Scale Based**" means a cutting authority where under Part 6 of the *Act*, the stumpage payable is based on a scale of the timber harvested from the cutting authority area;

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

"**Selling price zone 51**" means the table of coast market pricing system log values for old growth coniferous timber, approved by the director, Timber Pricing Branch;

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

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

"**Timber Pricing Branch**" means Timber Pricing Branch of the Ministry of Forests, Lands and Natural Resource Operations;

"**Timber Sales Manager**" means the timber sales manager or the timber sales manager's designate;

"**Total net cruise volume**" of a cutting authority area (tncv) is the product of the net cruise volume per hectare of the cutting authority area (ncv/ha) multiplied by the total merchantable timbered area to be harvested under the cutting authority (tmta). Expressed

as an equation:  $\frac{\text{ncv} = \frac{\text{ncv}}{\text{ha}} \times \text{tmta}}{\text{ha}}$ 

"**Tributary cutting authority area**" means a cutting authority area from which timber must be transported over the road that is developed, or a cutting authority area to which bulk fuels, supplies, equipment and harvesting crews necessary to carry out the day-to-day harvesting activities on that area must be taken on a regular basis over the road that is developed;

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

"**Woodchips**" means timber that has been cut into small pieces by a chipper and is made from post-harvest material where a waste assessment has been made. Where the postharvest material is removed from an area that is or was a cruise based billing cutting authority, a waste assessment is not required.

# **2**Scope and Requirements

## 2.1 Terms of Reference

1. Pursuant to section 105 of the *Act*, the provisions of this manual are the policies and procedures to be used in the determination, redetermination and variance of stumpage rates for Crown timber harvested in the Coast Area (except Manning Park) and all cutting authority areas within the geographic boundary of the North Coast timber supply area.

### 2.1.1 Responsibility for Stumpage Determinations

- 1. The following employees are authorized to determine, redetermine and vary rates of stumpage:
  - a. The director, and employees of the Timber Pricing Branch of the Ministry, and
  - b. Regional managers, regional appraisal coordinators 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 7.8(1) or (2).

## 2.1.2 Market Pricing System Parameters

- 1. The Market Pricing System 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/parameters.htm

#### 2.1.3 Minimum Stumpage Rate

A stumpage rate determined using this manual shall not be less than the prescribed minimum stumpage rate.

| GAMBDIST    | POA distance is the average straight line distance based on a BC<br>Albers projection, weighted by net cruise volume, between the<br>geographic centre of each cutblock in the cutting authority area and<br>Gambier Island. GAMBDIST is measured and rounded to the nearest<br>kilometre. |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             | The Gambier Island BC Albers coordinate is northing 499,955 and easting 1,185,166.                                                                                                                                                                                                         |
| GAMBDIST400 | Where GAMBDIST is equal to 400 or greater GAMBDIST400 = 1, otherwise GAMBDIST400 = $0$                                                                                                                                                                                                     |
| DISTAVGNBID | The average number of bidders for the forest district within which the cutting authority area is located is listed in Table 4-2.                                                                                                                                                           |

#### Table 4-2 Average Number of Bidders by Forest District

| Forest District              | Average Number of Bidders |
|------------------------------|---------------------------|
| Haida Gwaii                  | 2.43                      |
| Chilliwack                   | 2.93                      |
| Sea to Sky (Squamish)        | 3.17                      |
| Sunshine Coast               | 3.71                      |
| South Island                 | 5.61                      |
| Campbell River               | 5.59                      |
| North Island- Central Coast  | 4.05                      |
| Coast Mountain (North Coast) | 1.50                      |

## 4.2.1 Log Selling Prices

- 1. The Timber Pricing Branch shall:
  - a. Compile invoiced free on board log market values using prime, domestic, arm'slength sales reported to the Timber Pricing Branch prior to sixty days before the stumpage rate adjustment date that have occurred in areas adjacent to:
    - i. the Strait of Georgia;
    - ii. the Strait of Juan de Fuca;
    - iii. Alberni Inlet east of a line drawn south from Amphitrite Point;
    - iv. Quatsino Sound;
    - v. Johnstone Strait;

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

vii. Fraser River west of Hope.

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

http://www.for.gov.bc.ca/hva/parameters.htm

- 2. The volumes and prices of alder, birch, cottonwood and maple shall not be included in the schedules of average log market values.
- 3. The director shall approve schedules of average log market values for use in stumpage appraisals, reappraisals and quarterly adjustments.

4.2.1.1 Coniferous Timber

- 1. The volume of old growth coniferous timber and the volume of second growth coniferous timber in a cutting authority area will each be compiled from the timber cruise of the cutting authority area on a tree by tree basis.
- 2. Where the volume of second growth coniferous timber in a cutting authority area is at least eighty percent of the volume of all of the coniferous timber in that cutting authority area, the cutting authority area will be appraised and reappraised as if all of the coniferous timber in that cutting authority area were second growth coniferous timber.

## 4.2.2 Log Grade Percentages

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

4.2.2.1 Billing History Record

- 1. Except as provided in sections 4.2.2.2 (5) and (6), and 4.2.2.4, the billing history record that will be used in an appraisal or reappraisal of a cutting authority area will be determined using either Table 4-3 or Table 4-4 as may be required by this manual.
- 2. The date of issue of a stumpage invoice shall determine the period for which the log scale data in that invoice will be included in a billing history record.
- 3. Except as provided in sections 4.2.2.3.1(8) and 4.2.2.3.2(8), the billing history record shall be for a period of two years.

## 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  $37.78/m^3$ .

## 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. 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.

Where tree crown modification is approved:

- a. the rate for each old growth coniferous tree that is modified is \$42.11, and
- b. the rate 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.

- d. apply selected RMC values to applicable tables and formulas for road cost estimates.
- 8. In all circumstances where a complete interpretation of the rock mass classification system is required, the Piteau & Associates report is to be consulted directly.

## Table 5-1: Road Cost Estimates Expressed in Dollars per Kilometre of Road Length

|                         |                         | Cost Estimate per Kilometre (\$/km) |         |  |
|-------------------------|-------------------------|-------------------------------------|---------|--|
| Bank Height<br>Category | Rock Face<br>Height (m) | Soft/Medium                         | Hard    |  |
| OMLB                    | n/a                     | 62 588                              | 62 588  |  |
| OMPR                    | n/a                     | 68 236                              | 68 236  |  |
| OMRB                    | n/a                     | 82 232                              | 94 729  |  |
| TOE                     | (up to 1.50)            | 82 232                              | 94 729  |  |
| MRK                     | (1.51 – 3.00)           | 114 403                             | 119 286 |  |
| HRK                     | (3.01 – 4.50)           | 139 743                             | 154 405 |  |
| XRK                     | (4.51 – 6.00)           | 167 938                             | 167 938 |  |
| XXRK                    | (6.01 – 7.50)           | 186 504                             | 186 504 |  |

#### 5.3.3.2 Bridges and Culverts

- 1. A cost estimate for a bridge or a culvert may only be made and used in the appraisal or reappraisal of a cutting authority area where its necessity is substantiated by field data.
- 2. Crib back-fills and all site preparation and bridge protection features are included, as well as material supply and erection. Except where noted below, no adjustment of table values is permitted.
- 3. Input data within table boundaries is rounded to fit; no interpolation of values is permitted.

#### 5.3.3.2.1 Log Bridges

1. Cost estimates for log bridges are based on span lengths (distance between the centres of the top sill logs) and average crib height (distance from the bottom of the bottom sill log to the point where the stringer rests on the top sill log as measured along the centre line of the bridge) from Table 5-2. The average crib height is the numerical average of the crib heights on both banks of the water course.

2. Table 5-2 is used for estimating costs of all timber-decked and gravel surfaced log bridges with span lengths from 3.5 to 20.4 m and crib heights from single log to 5.4m.

| Span<br>Length | Single<br>Log<br>Sill |      |      | og Crib<br>b Height (m) |      |
|----------------|-----------------------|------|------|-------------------------|------|
| (m)            | 1                     | 2    | 3    | 4                       | 5    |
| 4              | 5.2                   | 5.6  | 6.0  | 6.4                     | 6.7  |
| 5              | 6.4                   | 6.8  | 7.2  | 7.6                     | 8.0  |
| 6              | 7.6                   | 8.0  | 8.4  | 8.8                     | 9.2  |
| 7              | 8.8                   | 9.2  | 9.6  | 10.0                    | 10.4 |
| 8              | 10.1                  | 10.4 | 10.8 | 11.2                    | 11.6 |
| 9              | 11.3                  | 11.6 | 12.0 | 12.4                    | 12.8 |
| 10             | 12.5                  | 12.9 | 13.2 | 13.6                    | 14.0 |
| 11             | 13.7                  | 14.1 | 14.4 | 14.8                    | 15.2 |
| 12             | 14.9                  | 15.3 | 15.7 | 16.0                    | 16.4 |
| 13             | 16.1                  | 16.5 | 16.9 | 17.2                    | 17.6 |
| 14             | 17.3                  | 17.7 | 18.1 | 18.5                    | 18.8 |
| 15             | 18.5                  | 18.9 | 19.3 | 19.7                    | 20.1 |
| 16             | 19.7                  | 20.1 | 20.5 | 20.9                    | 21.3 |
| 17             | 20.9                  | 21.3 | 21.7 | 22.1                    | 22.5 |
| 18             | 22.2                  | 22.5 | 22.9 | 23.3                    | 23.7 |
| 19             | 23.4                  | 23.7 | 24.1 | 24.5                    | 24.9 |
| 20             | 24.6                  | 25.0 | 25.3 | 25.7                    | 26.1 |

#### Table 5-2: Log Bridge Cost Estimates Expressed in Thousands of Dollars

#### 5.3.3.2.2 Permanent or Portable Bridges

- 1. Cost estimates for permanent or portable bridges, built of any material except logs, are based on total span length and average abutment height (distance from the ground surface interface to the bottom contact point with the girders) from Table 5-3. Each bridge abutment must be measured at the mid-point, from the ground surface interface to the bottom contact point with the girders. Each measured abutment height is then added together and averaged to get a resultant abutment height.
- 2. Table 5-3 is used for estimating costs of permanent or portable bridges with span lengths from 2.0 to 30.4 m and abutment heights from 0 to 6.4 m.
- 3. Table 5-3 includes costs for supervision, design, site preparation, supply and installation, freight and haulage (excluding barging), and rip-rap to flood design. Barging costs are allowed as an add-on to the tabular cost estimate. If the barging of bridge materials is done in conjunction with other equipment/materials, then the cost of barging the bridge material should be prorated by the licensee. This table covers any bridge with L60 to L165 load rating.

| Diameter (m) | Cost per lineal metre | Diameter (m) | Cost per lineal metre |
|--------------|-----------------------|--------------|-----------------------|
| 0.3          | \$56.00               | 0.9          | \$172.00              |
| 0.4          | \$66.00               | 1.0          | \$184.00              |
| 0.5          | \$92.00               | 1.2          | \$323.00              |
| 0.6          | \$115.00              | 1.4          | \$320.00              |
| 0.7          | \$132.00              | 1.6          | \$536.00              |
| 0.8          | \$148.00              | 1.8          | \$610.00              |

#### Table 5-4 Culvert Cost Estimate

## 5.3.4 Non-tabular Cost Estimates

- 1. The cost for any of the non-tabular projects identified in section 5.3.1.1(4)(a) will be estimated by preparing a non-tabular cost estimate. The regional manager may approve a standardized methodology to estimate the cost for the following projects:
  - a. end hauling,
  - b. road reconstruction and replacement,
  - c. stabilizing material, including:
    - i. capping,
    - ii. surfacing,
    - iii. material hauls (greater than 3.2 km),
    - iv. bridge approaches,
    - v. fords,
    - vi. culverts,
    - vii. keyed-in fills,
  - d. overlanding, including:
    - i. trucked in fills,
    - ii. large fills,

- iii. stored fills,
- e. permanent bridge construction,
- f. bridge structural repair.
- g. regional manager approved tributary development projects.
- 2. The cost information contained in Appendix VIII is to be used in conjunction with the Detailed Engineering Estimates for Coast Stumpage Appaisal February 1, 2001 and as amended to September 1, 2002.
- 3. The following non-tabular cost estimate projects require notification by the licensee to the district manager prior to commencement of construction:
  - a. road reconstruction,
  - b. re-surfacing, or
  - c. permanent bridge construction.

Notification must allow a minimum of fifteen (15) work days, or such other time as may be mutually agreed to between the district manager and the licensee. Such notification is needed to provide time for a field review of pre-construction site conditions.

- 4. Regional manager approved development projects require notification by the licensee to the regional manager. Sufficient lead time will be determined on a project by project basis.
- 5. The road development project cost estimate will be based on the data that is required by the regional manager and the equipment and labour rates as specified in Appendix I. Where a piece of equipment required to complete the project is not included in Appendix I then the equipment rate may be obtained from the 2012-2013 Equipment Rental Rate Guide 'The Blue Book'. Where a required piece of equipment is in neither Appendix I nor the 'Blue Book', approval for any other rate must be obtained from the regional manager for use in the project cost estimate. All equipment rates are assumed to be for a 3 year old machine using the July 1, 2012 cost base.
- 6. 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 non-tabular cost estimate.
- 7. Where the cost of a project is the subject of a contract entered into after arms-length competitive bids have been made for the contract, the cost of completing that project may be used as the development project cost estimate where that is authorized by the regional manager.

## 5.6 Basic Silviculture Cost

- 1. Except where basic silviculture performed or to be performed on a cutting authority area is or will be funded by the Crown or an agent of the Crown a basic silviculture cost may be used in the calculation of a tenure obligation adjustment where the licensee is required to perform basic silviculture on the cutting authority area being appraised or reappraised.
- 2. The basic silviculture cost depends on the geographic location of the cutting authority area being appraised or reappraised as described in table 5-5.

| Where the cutting authority area is located in: | The basic silviculture cost expressed in \$/m <sup>3</sup> is: |
|-------------------------------------------------|----------------------------------------------------------------|
| Haida Gwaii Forest District                     | 5.81                                                           |
| Chilliwack Forest District                      | 5.34                                                           |
| Sea to Sky (Squamish) Forest District           | 4.84                                                           |
| Sunshine Coast Forest District                  | 2.93                                                           |
| South Island Forest District                    | 2.89                                                           |
| Campbell River Forest District                  | 3.05                                                           |
| North Island - Central Coast Forest District    | 3.02                                                           |
| Coast Mountain (North Coast) Forest District    | 8.97                                                           |

#### Table 5-5: Basic Silviculture Cost

## 5.7 Low Grade Number

- 1. The forest district low grade fractions by timber species as shown in Table 5-6 shall be used in the calculation of the tenure obligation adjustment to account for the low grade timber that is not subject to the appraised stumpage rate.
- 2. The low grade fraction for each timber species to be used in the appraisal or reappraisal of the cutting authority area shall be the fraction by timber species by the forest district in which the cutting authority area is located (refer to Table 5-6).
- 3. The low grade number to be used in the calculation of the tenure obligation adjustment for a cutting authority area being appraised or reappraised is the sum of the products of the net cruise volume of each timber species in the cutting authority area multiplied by the low grade fraction for that species, divided by the total net cruise volume in the cutting authority area.

| District | BA     | CE     | CY     | FI     | HE     | LO     | SP     | WH     | Decid. |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| DCK      | 0.2610 | 0.0300 | 0.1260 | 0.0378 | 0.2422 | 0.5147 | 0.1658 | 0.3197 | 1.0000 |
| DCR      | 0.2183 | 0.0184 | 0.1628 | 0.0138 | 0.2230 | 0.0253 | 0.0793 | 0.0636 | 1.0000 |
| DNC      | 0.0771 | 0.0166 | 0.0363 | 0.0333 | 0.0701 | 0.0333 | 0.0358 | 0.0333 | 1.0000 |
| DNI      | 0.1615 | 0.0218 | 0.0761 | 0.0217 | 0.1813 | 0.1803 | 0.0390 | 0.0088 | 1.0000 |
| DQC      | 0.0877 | 0.0194 | 0.0577 | 0.0877 | 0.2476 | 0.0508 | 0.0335 | 0.0877 | 1.0000 |
| DSC      | 0.1248 | 0.0160 | 0.0731 | 0.0150 | 0.1550 | 0.0442 | 0.0555 | 0.0131 | 1.0000 |
| DSI      | 0.1392 | 0.0192 | 0.0700 | 0.0137 | 0.1762 | 0.0726 | 0.0364 | 0.1124 | 1.0000 |
| DSQ      | 0.3214 | 0.0413 | 0.2048 | 0.0510 | 0.3470 | 0.2793 | 0.1775 | 0.4232 | 1.0000 |

#### Table 5-6: Forest District Low Grade Fractions by Timber Species

## 5.8 Market Logger Cost

#### 5.8.1 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. MLC is expressed in  $/m^3$ .
- 2. Where the volume of second growth coniferous timber in a cutting authority area is less than eighty percent of the volume of all of the coniferous timber in that cutting authority area, the MLC is calculated as follow:

 $MLC = \left[\frac{7.59(1 - HW) - BCTS}{1 - LG}\right] + CTSSO$ 

3. Where the volume of second growth coniferous timber in a cutting authority area is at least eighty percent of the volume of all of the coniferous timber in that cutting authority area, the MLC is calculated as follows:

$$MLC = \left[\frac{6.53(1 - HW) - BCTS}{1 - LG}\right] + CTSSO$$

- 4. For the purpose of subsection 5.8.1(2) and 5.8.1(3):
  - HW = Is the fraction of the cutting authority area's volume harvested by helicopter to a water drop
  - LG = Low grade number calculated under section 5.7
  - BCTS = BCTS cost from section 5.8.2
  - CTSSO = Competitive timber sales specified operation cost from section 5.8.3

#### 5.8.2 BC Timber Sales Infrastructure and Services

The cost of infrastructure and services provided by BC Timber Sales for competitive timber sale licences (minus specified operations in the MPS data set) is  $0.35/m^3$ .

## 5.8.3 Competitive Timber Sales Specified Operations Adjustment

The cost of the competitive timber sales specified operation (CTSSO) already included in the competitive timber sale licences that are in the MPS dataset is  $0.26/m^3$ .

## 5.9 Return to Forest Management (RFM)

The return to forest management factor is 1.069.

## 7 Miscellaneous Timber Pricing Policies

## 7.1 Average Stumpage Rates by District and Species

1. Timber Pricing Branch shall produce a schedule of average sawlog stumpage rates for each species of timber in each forest district of the Coast Area. Those rates are effective on the date they are approved by the director.

### 7.2 Community Forest Agreements and Woodlot Licences

1. a. Except as provided for under section 7.2.1, the sawlog stumpage rate (\$/m<sup>3</sup>) 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:

|         | Zone              |                   |  |  |  |
|---------|-------------------|-------------------|--|--|--|
| Species | Northern<br>Coast | Southern<br>Coast |  |  |  |
| Balsam  | \$0.34            | \$0.33            |  |  |  |
| Hemlock | \$0.29            | \$0.41            |  |  |  |
| Cedar   | \$0.51            | \$0.93            |  |  |  |
| Cypress | \$0.54            | \$0.38            |  |  |  |
| Fir     | \$0.25            | \$0.58            |  |  |  |
| Spruce  | \$0.25            | \$0.42            |  |  |  |
| Other   | \$0.37            | \$0.54            |  |  |  |

- 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.

## 7.7 Linear Tenures

1. For this section:

"Linear tenure" means a licence to cut issued for a:

- a. right-of-way issued under an authority other than the Forest Act, or
- b. a pipeline right-of-way, or
- c. a highway right-of-way for a road administered by the Ministry of Transportation and Infrastructure, or
- d. transmission line, penstock, or powerhouse, or
- e. a forestry licence to cut issued under section 47.6(3) of the *Act* in conjunction with a BC Timber Sales road development contract.

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

- 2. The stumpage rate for a linear tenure shall be obtained from the schedule of average sawlog stumpage rates approved by the director under section 7.1, for the forest district in which the cutting authority area for the linear tenure is located.
- 3. A stumpage rate determined under this section shall be redetermined in accordance with section 3.3.4.
- 4. Notwithstanding any other paragraph in this section, if the total volume exceeds 2 500 m<sup>3</sup> the stumpage rate for a linear tenure may be determined through a full appraisal. Where a stumpage rate has been determined under this subsection, the procedures in chapter 3 shall apply.

## 7.8 Controlled Recreation Areas

- 1. The stumpage rate for a cutting authority area located within a Controlled Recreation Area (CRA) shall be the stumpage rate approved by the director under section 7.8.1, for the forest region in which the cutting authority area in the CRA is located.
- 2. A stumpage rate determined under this section shall be redetermined in accordance with section 3.3.5.
- 3. Notwithstanding any other paragraph in this section, the stumpage rate for a cutting authority area in a CRA may be determined through a full appraisal. Where a stumpage rate has been determined under this subsection, the procedures in chapter 3 shall apply.

## 7.8.1 CRA Stumpage Rate

1. Timber Pricing Branch shall produce the average appraised sawlog stumpage rate for the Coast Area. This rate is approved by the director for each quarter (January 1, April 1, July 1 and October 1).

## 7.9 Miscellaneous Stumpage Rates

#### Miscellaneous Stumpage Rates

1. Unless otherwise specified in a cutting authority, Table 7-1 in effect on the date of scale shall be used to determine the stumpage rates for deciduous species, low grade logs and timber in specified areas.

#### **Special Forest Products**

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

#### 7.9.1 Marine Log Salvage

#### 7.9.1.1 Beachcomb

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

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

#### 7.9.1.2 Root Buck

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

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

#### 7.9.1.3 Wahleach Island Catchment Basin

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

#### 7.9.1.4 Deadhead Logs

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

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

| Species                        | Product<br>Code | Logs                                 | Stumpage<br>Rate<br>(\$/m <sup>3</sup> ) |
|--------------------------------|-----------------|--------------------------------------|------------------------------------------|
| Deciduous                      | N/A             | All (except grades 'Y', 'Z')         | \$1.00                                   |
| Yew, Arbutus, Aspen,<br>Willow | N/A             | All                                  | \$0.25                                   |
| Hemlock & Balsam               | N/A             | Grade 'U'                            | \$0.25                                   |
| Coniferous                     | N/A             | Grade 'X'                            | \$0.25                                   |
| All Species                    | N/A             | Grade 'Y'                            | \$0.25                                   |
| All Species                    | RB              | Root buck                            | \$7.80                                   |
| All Species                    | N/A             | Beachcomb (BC)                       | \$0.70                                   |
| All Species                    | N/A             | Wahleach Island catchment basin (DH) | \$0.25                                   |
| All Species                    | N/A             | Deadhead logs (DH)                   | \$0.25                                   |

#### Table 7-1: Miscellaneous Stumpage Rates

#### Table 7-2: Special Forest Products Stumpage Rates

| Species                       | Product<br>Code | Logs                                                                                                                                          | Stumpage<br>Rate                          |  |
|-------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--|
| All Species                   | СА              | Cants (produced from dead and down post-logging residue)                                                                                      | \$9.60/m <sup>3</sup>                     |  |
| All Species                   | FW              | Firewood (round or split) - maximum length 1.2 m                                                                                              | \$1.00/m <sup>3</sup>                     |  |
| All Species                   | МТ              | Mining Timbers - maximum length 2.4 m                                                                                                         | \$3.00/m <sup>3</sup>                     |  |
| All Species<br>(except Cedar) | PR              | Posts and Rails (split and round) \$1.20                                                                                                      |                                           |  |
| Cedar                         | PR              | Posts and Rails (split and round)                                                                                                             | \$3.00/m <sup>3</sup>                     |  |
| All Species                   | SB              | Shake and Shingle Bolts, Blocks and Blanks                                                                                                    | \$5.30/m <sup>3</sup>                     |  |
| All Species                   | SK              | Shakes                                                                                                                                        | \$6.00/m <sup>3</sup>                     |  |
| All Species                   | SS              | Stakes and Sticks (Car Stakes, Grape Stakes, Hop<br>Poles, Lagging (split, Orchard Props, Pickets and<br>Palings, Stakes and Stocks (sticks)) | \$1.20/m <sup>3</sup>                     |  |
| All Species                   | СН              | Woodchips                                                                                                                                     | \$0.50/m <sup>3</sup>                     |  |
| All Species                   | HF              | Hogged tree material                                                                                                                          | \$0.25/m <sup>3</sup>                     |  |
| All Species                   | ХМ              | ChristmasHeight class 1, greater than 5 mTreesHeight class 2, 3 m to 5 mHeight class 3, Less than 3 m                                         | \$1.50 each<br>\$1.00 each<br>\$0.20 each |  |

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

## Appendices

## Appendix I Equipment and Labour Rates

a. "All Found" Equipment Rates (Source: 2012-2013 B.C. Road Builders & Heavy Construction Association, Equipment Rental Rate Guide ("The Blue Book")

| EQUIPMENT<br>DESCRIPTION                                                 |               |                                               |                                                                                                                                                                                                                                            |        |  |  |
|--------------------------------------------------------------------------|---------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--|--|
| Drilling Equipment - Rock Drill                                          | 1.4           |                                               | 750 cfm compressor including Tank Drill Outfit and 2 operators                                                                                                                                                                             | 243.60 |  |  |
| Excavator – Heavy Hydraulic *                                            | 7.3           | 45,000 – 50,999<br>Ibs                        | Deere 200D-LC; Kobelco SK210; Kamatsu PC200LC-8 TS; Link-Belt 210X2; Volvo EC210C, EC220D/DL                                                                                                                                               | 145.92 |  |  |
| Excavator – Heavy Hydraulic *                                            | 7.3           | 51,000 – 58,999<br>Ibs                        | Case CX250C; Cat 320E LLR; Deere 225D-LC, 240D-LC, 250G-LC;<br>Kobelco 215SRLC, 235SLRC, SK260LC; Kamatsu PC228USLC-8;<br>Link-Belt 225 Spin Ace, 240X2, 250X3; Volvo EC240C, EC240CL,<br>EC250D/DL, ECR235CL, ECR235D/DL                  | 158.07 |  |  |
| Excavator – Heavy Hydraulic *                                            | 7.3           | 59,000 – 67,999<br>Ibs                        | Case CX300C; Cat 324E; Deere 270D-LC, 290G-LC; Kobelco<br>SK260LC-9, SK295LC; Link-Belt 290X2, 300X3; Volvo EC290C                                                                                                                         | 177.60 |  |  |
| Excavator – Heavy Hydraulic *                                            | 7.3           | 68,000 – 87,999<br>Ibs                        | Case CX350C; Cat 329E, 336DL, 336EL; Deere 350D-LC, 350G-LC;<br>Kobelco SK295LC-9, SK350LC-9; Komatsu PC300HD-8, PC300LC-<br>8, PC350HD-8, PC350LC-8; Link-Belt 350X3; Volvo EC300D/DL,<br>EC330C, EC340DL, EC360CL, ECR305C               | 215.55 |  |  |
| Excavator – Heavy Hydraulic *                                            | 7.3           | 88,000 – 95,999<br>Ibs                        | Komatsu PC300HD-7MH, PC400LC-6 (out of date models)                                                                                                                                                                                        | 220.28 |  |  |
| Excavator – Heavy Hydraulic *                                            | 7.3           | 96,000 – 102,999<br>Ibs                       | Komatsu PC400LC-8, PC400LC-8 VG, PC450LC-8                                                                                                                                                                                                 | 275.33 |  |  |
| Excavator – Wheel                                                        | 7.2           | 70,000+ lbs                                   | Cat M325DL MH (out of date model)                                                                                                                                                                                                          | 177.15 |  |  |
| Grader                                                                   | 8.1           | 200-249 FWHP                                  | Cat 160M, 160M2; Deere 872D, 872G; Volvo G940B, G946B AWD, G960B, G970, G976 AWD, G990                                                                                                                                                     | 155.65 |  |  |
| Lifting Equipment - Crane                                                | 9.2           | 18 tonnes                                     |                                                                                                                                                                                                                                            | 115.65 |  |  |
| Loader - Front End 4X4 (Gravel)                                          | 10.2          | 5 cu yd (3.82m <sup>3</sup> )                 | Cat 966K; Deere 744K; Kawasaki 90ZV-2; Volvo L150G                                                                                                                                                                                         | 178.65 |  |  |
| Loader – Front End (Logs)                                                | 10.2          | 6 cu yd (4.59m <sup>3</sup> )                 | Deere 824K; Kawasaki 92ZV-2; Komatsu WA480-6; Volvo L220G                                                                                                                                                                                  | 186.85 |  |  |
| Skidder - Grapple Rubber Tired                                           | 17.1          | 21,000 – 28,000<br>lbs<br>104-152 hp          | Cat 515; Clark F-66-D, H-66-G; Deere 548-GII, 548-GIII; TimberJack 360-D (out-of-date models)                                                                                                                                              |        |  |  |
| Skidder + Roller – Towed:<br>Pneumatic Tired or Vibratory Steel<br>Wheel | 17.1 & 13.6   | 2.7-3.6 tonne roller                          | Cat 515; Clark F-66-D, H-66-G; Deere 548-GII, 548-GIII; TimberJack 360-D (out-of-date models)                                                                                                                                              | 114.80 |  |  |
| Skidder + Roller – Towed:<br>Sheepsfoot and grid                         | 17.1 & 13.5   | 32 in. diameter<br>(813mm)<br>2 drums rollers | Cat 515; Clark F-66-D, H-66-G; Deere 548-GII, 548-GIII; TimberJack 360-D (out-of-date models)                                                                                                                                              | 115.65 |  |  |
| Tractor - Crawler                                                        | 15.1          | 85-129.9 FWHP                                 | Case 1150K-XLT-3, 850L-XLT; Cat D4K2 XL, D52K XL; Deere 650J<br>LT, 650J-LGP, 650J-XLT, 700J LGP, 700J LT, 700J XLT, 700K;<br>Dressta TD-10M, TD-10MDD, TD-8M, TD-8MDD, TD-9M, TD-<br>9MDD; Komatsu D37EX-22, D37PX-22, D39EX-22, D39PX-22 | 138.35 |  |  |
| Tractor - Crawler                                                        | 15.1          | 130-189.9 FWHP                                | Case 1650L-XLT; Deere 750K, 850J; Komatsu D51EX-22, D51PX-<br>22, D61EX-15, D61PX-15                                                                                                                                                       | 180.00 |  |  |
| Tractor - Crawler                                                        | 15.1          | 190-259.9 FWHP                                | Cat D7E; Deere 764 HSD, 850K, 950J, 950J LGP; Dressta TD-20M<br>LA, TD-15M LA, TD-15ME, TD-20M                                                                                                                                             | 213.55 |  |  |
| Tractor - Crawler                                                        | 15.1          | 260-359.9 FWHP                                | Cat D8T; Deere 1050J; Dressta TD-25M, TD-25M LA                                                                                                                                                                                            | 256.45 |  |  |
| Tractor - Crawler                                                        | 15.1          | 360-519.9 FWHP                                | Cat D9T; Dressta TD-40E Extra, TD-40E                                                                                                                                                                                                      | 308.60 |  |  |
| Truck – Concrete Transit Mix                                             | 4.5           | 8 cu yd (6.1 m <sup>3</sup> )                 |                                                                                                                                                                                                                                            | 104.10 |  |  |
| Truck – Dump Gravel – Standard<br>S/A or Tandem **                       | 16.1          | 14 cu yd (10.7m <sup>3</sup> )                | Standard haul                                                                                                                                                                                                                              | 92.86  |  |  |
| Truck – Dump Gravel – Standard<br>S/A or Tandem                          | 16.1          | 14 cu yd (10.7m <sup>3</sup> )                | Includes 10% for rip-rap haul                                                                                                                                                                                                              | 102.15 |  |  |
| Truck – Dump Gravel Articulated                                          | 16.8          | 20-24 tonnes                                  | Deere 250D, 250D-II; Terex TA350, TA400; Volvo A25E, A25F                                                                                                                                                                                  | 158.50 |  |  |
| Truck – Dump Gravel Articulated                                          | 16.8          | 25–29 tonnes                                  | Deere 300D, 300D-II; Volvo A30E, A30F                                                                                                                                                                                                      | 175.60 |  |  |
| Truck – Logging (Highway)                                                | 16.2-C        | 6 axle 45,000 kg                              | Tandem tractor & lowbed with booster                                                                                                                                                                                                       | 117.50 |  |  |
| Truck – Log Self Loading                                                 | 16.2-C & 16.3 |                                               | Truck – Logging (Highway) and 5-tonne deck crane                                                                                                                                                                                           | 130.55 |  |  |
| Truck - Lowbed                                                           | 16.2-C        | 5 axle unit                                   | Tandem tractor and lowbed                                                                                                                                                                                                                  | 106.60 |  |  |
| Truck - Lowbed                                                           | 16.2-C        | 7 axle unit                                   | A or B train (or triple axle with booster)                                                                                                                                                                                                 | 134.95 |  |  |
| Truck – Miscellaneous – Pilot<br>Vehicle                                 | 16.2-A        |                                               |                                                                                                                                                                                                                                            | 50.65  |  |  |

\* 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.

"<sup>1</sup>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)

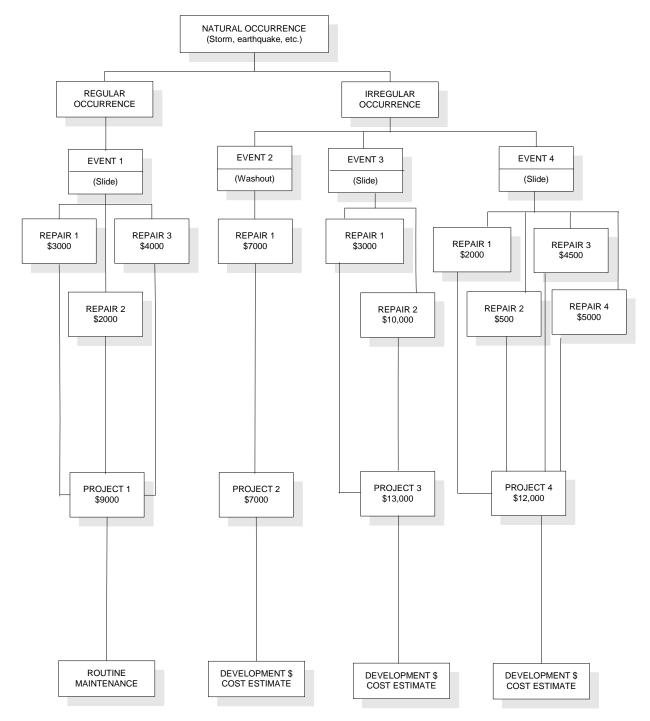
| EQUIPMENT<br>DESCRIPTION | BLUE BOOK SECTION<br>NUMBER | BLUE BOOK CATEGORY                          | *\$/HOUR |
|--------------------------|-----------------------------|---------------------------------------------|----------|
| Concrete Mixer           | 4.4                         | 6 cu ft (0.17 m³)                           | 7.69     |
| Concrete Vibrator        | 4.3                         | 12' to 21' (3.65m – 6.10m)                  | 5.11     |
| Powersaw                 | 11.1                        | Over 20+ inch blade; over 57cm <sup>3</sup> | 3.65     |

\*Labour not included

c. 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: Sunshine Coast**

|                                     | ALD  | Co-ordinates (Approximately) |         |           |         |  |  |
|-------------------------------------|------|------------------------------|---------|-----------|---------|--|--|
| Location                            | Code | Latitude                     |         | Longitude |         |  |  |
|                                     | Code | Degrees                      | Minutes | Degrees   | Minutes |  |  |
| Toba Inlet - Higgins Bay            | TOHB | 50                           | 22      | 124       | 40      |  |  |
| West Redonda Island - Desolation    | WRDE | 50                           | 08      | 124       | 46      |  |  |
| West Redonda Island - Doctor Bay    | WRDB | 50                           | 15      | 124       | 49      |  |  |
| West Redonda Island - Lewis Channel | WRLC | 50                           | 12      | 124       | 56      |  |  |
| West Redonda Island - Redonda Bay   | WRRB | 50                           | 15      | 124       | 57      |  |  |
| West Redonda Island - Talbot Cove   | WRTC | 50                           | 10      | 124       | 52      |  |  |
| West Redonda Island - Teakerne Arm  | WRTA | 50                           | 11      | 124       | 49      |  |  |

#### Sea to Sky (Squamish) Forest District

#### District: Sea to Sky (Squamish)

|                                   | ALD  | Co-ordinates (Approximately) |          |         |           |         |         |  |
|-----------------------------------|------|------------------------------|----------|---------|-----------|---------|---------|--|
| Location                          | Code |                              | Latitude |         | Longitude |         |         |  |
|                                   |      | Degrees                      | Minutes  | Seconds | Degrees   | Minutes | Seconds |  |
| Squamish Mills DLS                | SQUA | 49                           | 41       | 07      | 123       | 09      | 25      |  |
| West Barr DLS                     | WBAR | 49                           | 42       | 02      | 123       | 10      | 08      |  |
| Watts Point DLS                   | WATT | 49                           | 39       | 20      | 123       | 12      | 57      |  |
| <sup>1</sup> Harrison Lake – Head | HLHE | 49                           | 44       | 14      | 122       | 08      | 49      |  |
| <sup>1</sup> Indian Arm           | INDA | 49                           | 27       | 50      | 122       | 52      | 39      |  |

#### Haida Gwaii Forest District

#### District: Haida Gwaii

|                                                              | ALD  | Co-ordinates (Approximately) |          |         |           |         |         |  |
|--------------------------------------------------------------|------|------------------------------|----------|---------|-----------|---------|---------|--|
| Location                                                     | Code |                              | Latitude | •       | Longitude |         |         |  |
|                                                              |      | Degrees                      | Minutes  | Seconds | Degrees   | Minutes | Seconds |  |
| Cumshewa Inlet - Beatty Anchorage,<br>Louise Island DLS      | CUBE | 53                           | 01       | 29      | 131       | 53      | 49      |  |
| Masset Inlet - Collison Point Dump                           | MICP | 53                           | 47       | 08      | 132       | 13      | 23      |  |
| Masset Inlet - Dinan Bay DLS                                 | MIDB | 53                           | 41       | 42      | 132       | 36      | 13      |  |
| Masset Inlet - Ferguson Bay DLS                              | MIFB | 53                           | 40       | 13      | 132       | 17      | 25      |  |
| Masset Inlet – McClinton Bay DLS                             | MIMB | 53                           | 38       | 53      | 132       | 35      | 27      |  |
| Masset Inlet – Port Clements, Abfam Mill                     | MIAM | 53                           | 42       | 00      | 132       | 10      | 20      |  |
| Masset Inlet – Port Clements, O'Brien<br>DLS                 | MIOB | 53                           | 42       | 07      | 132       | 10      | 13      |  |
| Naden Harbour – Colnett Point DLS                            | NHCP | 53                           | 58       | 34      | 132       | 40      | 22      |  |
| Naden Harbour - Davidson DLS                                 | NHDA | 53                           | 59       | 33      | 132       | 34      | 13      |  |
| Rennell Sound - Clonard Bay Dump                             | RSCB | 53                           | 20       | 58      | 132       | 30      | 41      |  |
| Rennell Sound - Rennell Sound DLS                            | RSRS | 53                           | 21       | 28      | 132       | 27      | 44      |  |
| Sewell Inlet - Sewell Inlet DLS                              | SISI | 52                           | 52       | 42      | 131       | 58      | 28      |  |
| Skidegate inlet - Alliford Bay DLS                           | SIAB | 53                           | 12       | 23      | 131       | 59      | 01      |  |
| Skidegate Inlet - Long Inlet, Lagins Creek<br>DLS            | SILI | 53                           | 13       | 27      | 132       | 18      | 47      |  |
| Skidegate Inlet - Queen Charlotte City,<br>Skidegate DLS     | SIQC | 53                           | 15       | 05      | 132       | 06      | 24      |  |
| Skidegate Inlet - South Bay DLS (South of Sandilands Island) | SISB | 53                           | 09       | 37      | 132       | 04      | 02      |  |
| Van Inlet - (South of Rennell Sound)                         | VIRS | 53                           | 17       | 07      | 132       | 30      | 22      |  |

<sup>&</sup>lt;sup>1</sup> Located in Chilliwack F.D., but can be used for Sea to Sky (Squamish) Forest District appraisals.

## Coast Mountain (North Coast) Forest District

| District: Coast Mountain (North Coast)             |      |                              |         |           |         |  |  |
|----------------------------------------------------|------|------------------------------|---------|-----------|---------|--|--|
|                                                    | ALD  | Co-ordinates (Approximately) |         |           |         |  |  |
| Location                                           | Code | Latit                        |         | Longitude |         |  |  |
|                                                    |      | Degrees                      | Minutes | Degrees   | Minutes |  |  |
| Alan Reach - Collins Bay DLS                       | ARCO | 53                           | 33      | 128       | 44      |  |  |
| Alan Reach - Ochwe Bay, Paril Creek<br>Log Dump    | ALOC | 53                           | 29      | 128       | 46      |  |  |
| Alan Reach - Proposed BCTS                         | ALTS | 53                           | 25      | 128       | 34      |  |  |
| Alice Arm - Kitsault                               | ALKI | 55                           | 28      | 129       | 27      |  |  |
| Alice Arm - Proposed BCTS                          | AATS | 55                           | 28      | 129       | 29      |  |  |
| Banks Island - Banks Island DLS,<br>Donaldson Lake | BADO | 53                           | 28      | 130       | 02      |  |  |
| Banks Island - Patterson Inlet                     | BAPA | 53                           | 26      | 129       | 46      |  |  |
| Devastation Channel - Heysham Creek -<br>BCTS      | DVHE | 53                           | 35      | 128       | 48      |  |  |
| Devastation Channel - Verney Pass Log<br>Dump      | DVVE | 53                           | 32      | 128       | 51      |  |  |
| Devastation Channel - Weewanie Creek               | DVWE | 53                           | 41      | 128       | 47      |  |  |
| Douglas Channel - Kitkiata - BCTS                  | DOKI | 53                           | 38      | 129       | 15      |  |  |
| Douglas Channel - Little Tillhorn DLS              | DOTI | 53                           | 33      | 129       | 10      |  |  |
| Ecxstall River - Cuthbert Creek DLS                | ETCC | 54                           | 05      | 129       | 51      |  |  |
| Grenville Channel - Farrant Island Log<br>Dump     | GRFA | 53                           | 19      | 129       | 23      |  |  |
| Grenville Channel - Baker Inlet                    | GRBA | 53                           | 48      | 129       | 53      |  |  |
| Kaien Island - Kaien Island DLS                    | KAIS | 54                           | 18      | 130       | 15      |  |  |
| Kennedy Island - Kennedy Island DLS                | KEIS | 54                           | 03      | 130       | 09      |  |  |
| Kumealon Inlet - Kumealon DLS                      | KUIN | 53                           | 52      | 129       | 59      |  |  |
| Nass Bay - Mill Bay                                | NBMB | 55                           | 00      | 129       | 52      |  |  |
| Nass Bay - Welda Creek                             | NBWC | 54                           | 56      | 129       | 52      |  |  |
| Pearse Island - Dogfish Bite                       | PIDB | 55                           | 01      | 130       | 11      |  |  |
| Pitt Island - Captain's Cove                       | PICC | 53                           | 48      | 130       | 11      |  |  |
| Pitt Island (South) - Payne Channel Log<br>Dump    | PIPC | 53                           | 19      | 129       | 28      |  |  |
| Porcher Island - Hunts Island - BCTS               | POHI | 54                           | 03      | 130       | 33      |  |  |
| Porcher Island - Oona River                        | POOR | 53                           | 56      | 130       | 15      |  |  |
| Porcher Island - Porcher Inlet (North) -<br>BCTS   | POPN | 53                           | 59      | 130       | 25      |  |  |
| Porcher Island - Porcher Inlet (South) -<br>BCTS   | POPS | 53                           | 58      | 130       | 24      |  |  |

|                                                             | ALD  | Co-ordinates (Approximately) |         |           |         |  |  |
|-------------------------------------------------------------|------|------------------------------|---------|-----------|---------|--|--|
| Location                                                    | Code | Latit                        | ude     | Longitude |         |  |  |
|                                                             |      | Degrees                      | Minutes | Degrees   | Minutes |  |  |
| Port Edward - Bawey Wood Products                           | PEBW | 54                           | 14      | 130       | 17      |  |  |
| Port Edward - Galloway Rapids                               | PEGR | 54                           | 14      | 130       | 16      |  |  |
| Port Simpson - Stumaun Bay DLS                              | PSSB | 54                           | 33      | 130       | 23      |  |  |
| Portland Canal - Donahue Creek<br>(BCTS)                    | PCDC | 55                           | 28      | 130       | 02      |  |  |
| Portland Canal - Swamp Point                                | PCSP | 55                           | 23      | 130       | 01      |  |  |
| Portland Inlet - BCTS - Sommerville Island                  | PISI | 54                           | 46      | 130       | 13      |  |  |
| Portland Inlet - Nasoga Gulf,<br>Chambers Creek             | PING | 54                           | 53      | 130       | 03      |  |  |
| Prince Rupert - Sabre Marine                                | PRSM | 54                           | 19      | 130       | 16      |  |  |
| Princess Royal Channel - Fraser<br>Reach #2                 | PRCF | 53                           | 15      | 128       | 51      |  |  |
| Princess Royal Channel -Fraser<br>Reach #1                  | PRFR | 53                           | 16      | 128       | 53      |  |  |
| Princess Royal Island - Chapple Inlet<br>DLS                | PRCI | 52                           | 57      | 129       | 08      |  |  |
| Princess Royal Island - Head of Surf<br>Inlet Log Dump      | PRHS | 53                           | 01      | 128       | 54      |  |  |
| Princess Royal Island - Surf Inlet                          | PRSI | 53                           | 01      | 128       | 54      |  |  |
| Princess Royal Island - Surf Inlet Log<br>Dump              | PRSD | 53                           | 01      | 128       | 54      |  |  |
| Princess Royal Island - Surf Inlet,<br>Cedar Creek Log Dump | PRCC | 53                           | 01      | 128       | 56      |  |  |
| Princess Royal Island - Triven Point -<br>BCTS              | PRTP | 53                           | 18      | 129       | 01      |  |  |
| Quatoon Inlet                                               | QUIN | 54                           | 27      | 130       | 05      |  |  |
| Ridley Island                                               | RIIS | 54                           | 13      | 130       | 19      |  |  |
| Ridley Island - Ridley Island DLS                           | RIRI | 54                           | 14      | 130       | 18      |  |  |
| Scotia River - Scotia River DLS                             | SRSR | 54                           | 10      | 129       | 38      |  |  |
| Skeena River - Alder Creek DLS                              | SRAC | 54                           | 14      | 129       | 25      |  |  |
| Sommerville Island - BCTS - Steamer<br>Passage (east)       | SISP | 54                           | 42      | 130       | 15      |  |  |
| Sommerville Island - BCTS - Steamer<br>Passage (west)       | SISQ | 54                           | 42      | 130       | 18      |  |  |
| Steamer Passage - Crow Lagoon                               | SPCL | 54                           | 42      | 130       | 13      |  |  |
| Triumph Bay - Trip Creek Log Dump                           | TBTC | 53                           | 28      | 128       | 42      |  |  |
| Triumph Bay - Triumph Bay DLS                               | TBTB | 53                           | 26      | 128       | 41      |  |  |

| District: Coast Mountain (North Coast)                  |      |                              |         |         |         |  |  |  |  |
|---------------------------------------------------------|------|------------------------------|---------|---------|---------|--|--|--|--|
|                                                         | ALD  | Co-ordinates (Approximately) |         |         |         |  |  |  |  |
| Location                                                | Code | Latit                        | ude     | Long    | itude   |  |  |  |  |
|                                                         |      | Degrees                      | Minutes | Degrees | Minutes |  |  |  |  |
| Ursula Channel - Bishop Bay Log<br>Dump                 | UCBB | 53                           | 26      | 128     | 53      |  |  |  |  |
| Ursula Channel - East Gribble Island<br>Log Dump        | UCGI | 53                           | 21      | 128     | 55      |  |  |  |  |
| Ursula Channel - Goat Harbour                           | UCGH | 53                           | 21      | 128     | 50      |  |  |  |  |
| Ursula Channel - Proposed BCTS                          | UCTS | 53                           | 29      | 128     | 57      |  |  |  |  |
| Ursula Channel - Riordan Creek Log<br>Dump              | UCRC | 53                           | 26      | 128     | 57      |  |  |  |  |
| Verney Passage - Cheenis Creek                          | VPCC | 53                           | 33      | 129     | 01      |  |  |  |  |
| Whale Channel - Cornwall Inlet,<br>Drake Inlet Log Dump | WCDI | 53                           | 08      | 128     | 58      |  |  |  |  |
| Work Channel - Bill Lake                                | WCBL | 54                           | 23      | 130     | 05      |  |  |  |  |
| Work Channel - Marion Creek                             | WCMC | 54                           | 21      | 130     | 03      |  |  |  |  |
| Work Channel - Union Inlet                              | WCUI | 54                           | 33      | 130     | 24      |  |  |  |  |

#### **Campbell River Forest District**

#### District: Campbell River

|                                                             | ALD  | Co-ordinates (Approximately) |         |         |           |         |         |  |
|-------------------------------------------------------------|------|------------------------------|---------|---------|-----------|---------|---------|--|
| Location                                                    | Code | Latitude                     |         |         | Longitude |         |         |  |
|                                                             |      | Degrees                      | Minutes | Seconds | Degrees   | Minutes | Seconds |  |
| Bligh Island                                                | BLIS | 49                           | 40      | 34      | 126       | 31      | 51      |  |
| Brooks Bay - Cordero Channel                                | BRCO | 50                           | 27      | 20      | 125       | 25      | 45      |  |
| Brougham - Nodales Channel                                  | BRNO | 50                           | 22      | 23      | 125       | 22      | 59      |  |
| Bute Inlet – East of Estero Basin<br>(Egerton)              | BUES | 50                           | 30      | 12      | 125       | 06      | 30      |  |
| Call Inlet - Head of Call Inlet (south side)                | CAHS | 50                           | 37      | 37      | 125       | 56      | 56      |  |
| Call Inlet - Head of Call Inlet (north side)                | CAHN | 50                           | 38      | 22      | 125       | 58      | 54      |  |
| Call Inlet (North) - Call Inlet                             | CACN | 50                           | 36      | 33      | 126       | 06      | 03      |  |
| Call Inlet (South) - Call Inlet                             | CACS | 50                           | 35      | 35      | 126       | 06      | 23      |  |
| Chancellor Channel - Darcy Point<br>South                   | CHDA | 50                           | 25      | 25      | 125       | 42      | 01      |  |
| Comox                                                       | COMO | 49                           | 39      | -       | 124       | 55      | -       |  |
| Cordero Channel - Picton Point                              | COPI | 50                           | 28      | 04      | 125       | 23      | 55      |  |
| Cordero Channel - Cordero 1                                 | COCO | 50                           | 26      | 35      | 125       | 33      | 21      |  |
| Cordero Channel - Tallac Bay                                | COTA | 50                           | 26      | 40      | 125       | 28      | 06      |  |
| Discovery Passage - Elk Bay                                 | DIEB | 50                           | 16      | 38      | 125       | 26      | 16      |  |
| Discovery Passage - Menzies Bay                             | DIMB | 50                           | 07      | 28      | 125       | 23      | 15      |  |
| Discovery Passage - West Sonora<br>Island                   | DIWS | 50                           | 19      | 00      | 125       | 24      | 09      |  |
| East Thurlow Island - Bickley Bay                           | ETBB | 50                           | 26      | 52      | 125       | 24      | 06      |  |
| East Thurlow Island - Crawford<br>Anchorage, Erasmus Island | ETCA | 50                           | 25      | 50      | 125       | 27      | 56      |  |
| East Thurlow Island - Hemming Bay                           | ETHB | 50                           | 24      | 01      | 125       | 22      | 47      |  |
| East Thurlow Island - Mayne Passage                         | ETMP | 50                           | 23      | 15      | 125       | 31      | 22      |  |
| East Thurlow Island - Turn Harbour                          | ETTH | 50                           | 21      | 11      | 125       | 28      | 18      |  |
| Esperanza Inlet - Port Eliza                                | ESPE | 49                           | 52      | 13      | 127       | 00      | 32      |  |
| Esperanza Inlet - Port Eliza, Weasel<br>Creek               | ESWC | 49                           | 56      | 12      | 127       | 02      | 25      |  |
| Espinosa Inlet - Mid Espinosa Inlet                         | ESME | 49                           | 55      | 42      | 126       | 56      | 32      |  |
| Espinosa Inlet - South Espinoza                             | ESSE | 49                           | 53      | 26      | 126       | 54      | 56      |  |
| Frederick Arm                                               | FRED | 50                           | 30      | 18      | 125       | 15      | 29      |  |
| Frederick Arm - Egerton Creek South                         | FAEC | 50                           | 29      | 04      | 125       | 15      | 00      |  |

#### **District: South Island**

| ALD Co-ordinates (Approximately)  |      |         |          |    |           |    |         |  |  |
|-----------------------------------|------|---------|----------|----|-----------|----|---------|--|--|
| Location                          | Code |         | Latitude |    | Longitude |    |         |  |  |
|                                   | oouc | Degrees |          |    |           |    | Seconds |  |  |
| Otter Point Log Sort              | OPLS | 48      | 22       | 10 | 123       | 46 | 16      |  |  |
| Saltspring Island, Burgoyne Bay   | SIBU | 48      | 47       | 37 | 123       | 31 | 21      |  |  |
| Port Alberni, Ship Creek          | PASC | 49      | 13       | 17 | 124       | 48 | 42      |  |  |
| Shoal Island DLS                  | SHOA | 48      | 52       | 54 | 123       | 38 | 07      |  |  |
| Stewardson Inlet                  | STEW | 49      | 25       | 26 | 126       | 18 | 37      |  |  |
| Sydney Inlet                      | SYIN | 49      | 26       | 07 | 126       | 13 | 43      |  |  |
| Stewardson Inlet (Mouth)          | STEM | 49      | 26       | 39 | 126       | 17 | 49      |  |  |
| Strait of Georgia - Valdes Island | SGVI | 49      | 03       | 54 | 123       | 39 | 19      |  |  |
| Tofino Inlet - Rankin Cove        | TIRC | 49      | 10       | 30 | 125       | 42 | 21      |  |  |
| Uchuklesit Inlet - Silverside DLS | UISI | 49      | 00       | 22 | 125       | 02 | 11      |  |  |
| Uchuklesit Inlet - Snug Cove      | UISC | 49      | 00       | 58 | 125       | 01 | 58      |  |  |
| Ucluelet (East)                   | UCLU | 48      | 58       | 25 | 125       | 34 | 21      |  |  |
| Vargas Island                     | VARG | 49      | 12       | -  | 125       | 58 | -       |  |  |

#### North Island - Central Coast Forest District

| District: North Island - Central Coast |             |                              |         |           |         |
|----------------------------------------|-------------|------------------------------|---------|-----------|---------|
| Location                               | ALD<br>Code | Co-ordinates (Approximately) |         |           |         |
|                                        |             | Latitude                     |         | Longitude |         |
|                                        |             | Degrees                      | Minutes | Degrees   | Minutes |
| Actaeon Sound                          | ACSD        | 50                           | 58      | 127       | 02      |
| Beaver Cove                            | BEAV        | 50                           | 32      | 126       | 52      |
| Bella Coola                            | BECO        | 52                           | 22      | 126       | 49      |
| Bonwick Island, Grebe Cove             | BOGR        | 50                           | 43      | 126       | 37      |
| Boswell Inlet DLS                      | BOIN        | 51                           | 22      | 127       | 28      |
| Boughey                                | BOUG        | 50                           | 32      | 126       | 11      |
| Burke Channel, Doc Creek               | BUDO        | 51                           | 58      | 127       | 40      |
| Burke Channel, Twin Creeks DLS         | BUTW        | 52                           | 15      | 127       | 16      |
| Chief Nollis Bay                       | CHNO        | 51                           | 11      | 127       | 06      |
| Clayton Falls DLS                      | CLFA        | 52                           | 22      | 126       | 49      |
| Cleagh Creek DLS                       | CLCR        | 50                           | 29      | 127       | 45      |
| Cousins Inlet                          | COUS        | 52                           | 18      | 127       | 45      |
| Creasy Bay                             | CREA        | 50                           | 57      | 127       | 05      |
| Cutter Cove                            | CUTT        | 50                           | 37      | 126       | 16      |
| Dawsons Landing                        | DALA        | 51                           | 35      | 127       | 35      |
| Dean Channel, Parker Creek             | DEPA        | 52                           | 15      | 127       | 43      |
| Denny Island, Kliktsoatli Harbour      | DEKL        | 52                           | 09      | 128       | 05      |
| Disco Bluff - South Bentinck Arm       | DISB        | 52                           | 07      | 126       | 45      |
| Don Peninsula - Tom Bay                | DOTB        | 52                           | 24      | 128       | 16      |
| Draney Inlet                           | DRIN        | 51                           | 27      | 127       | 27      |
| Drury Inlet                            | DRUR        | 50                           | 55      | 127       | 09      |
| Drury Inlet - Caviar Cove DLS          | DRCA        | 50                           | 53      | 127       | 03      |
| Fish Egg Inlet DLS                     | FISH        | 51                           | 33      | 127       | 46      |
| Forward                                | FORW        | 50                           | 29      | 125       | 44      |
| Frederick Bay DLS                      | FRBA        | 51                           | 02      | 127       | 14      |
| Frederick Sound - Snowdrift Mt. DLS    | FSSM        | 51                           | 04      | 126       | 44      |
| Frenchman Creek - Dean Channel         | FRDC        | 52                           | 19      | 127       | 33      |
| Gilford Island - Duck Cove             | GIDU        | 50                           | 40      | 126       | 30      |
| Gilford Island - Shoal Harbour         | GISH        | 50                           | 46      | 126       | 28      |
| Gilford Island - Scott Cove DLS        | GISC        | 50                           | 44      | 126       | 29      |
| Harbledown Island, DLS                 | HARB        | 50                           | 35      | 126       | 33      |