## New Brunswick Private Woodlot Stumpage Values

# Stumpage Study Results January 2022 to December 2022



New Brunswick Forest Products Commission

**Commission des produits forestiers** du Nouveau Brunswick

### Contents

| NTRODUCTION  | 2  |
|--|----|
| OBJECTIVE  | 2  |
| STUDY PERIOD   | 2  |
| FACTORS THAT IMPACT STUMPAGE VALUE                         | 2  |
| STUDY DATA   | 3  |
| ANALYSIS   | 5  |
| PROVINCIAL RESULTS   | 6  |
| APPENDIX A - DETAILED STUDY METHODOLOGY                    | 7  |
| REQUESTS FOR DATA SUBMISSIONS                              | 8  |
| DATA STANDARDIZATION                                       | 8  |
| CREATION OF CALCULATED FIELDS AND PRO-RATING LUMP-SUM DATA | 8  |
| COMBINING DATA FORMATS AND TRIMMING OUTLIERS               | 10 |
| STUMPAGE VALUE ANALYSIS                                    | 10 |
| VERIFICATION OF TRANSACTION-BASED DATA                     | 11 |
| APPENDIX B – DETAILED PROVINCIAL AND REGIONAL RESULTS      | 12 |

#### INTRODUCTION

This report illustrates the results of a study which was undertaken to determine the value of forest products in the form of standing trees on private woodlots in New Brunswick. The value of standing timber is typically referred to as stumpage, which is the value offered to a landowner by a party interested in harvesting and marketing or consuming the landowner's timber. Section 59(1) of New Brunswick's *Crown Lands and Forests Act* stipulates how royalty rates for stumpage on Crown lands shall be based on the fair market value of standing timber. Since 1982, the Government has conducted periodic studies of fair market stumpage values from private woodlots in New Brunswick upon which to base the Crown timber royalty rates.

The New Brunswick Forest Products Commission (Commission) is an independent body established under the *Natural Products Act* and the *Forest Products Act*. Among the various duties of the Commission, there are two sub-sections of the *Forest Products Act* that specifically relate to this type of study:

- 11(a) to examine and consider data relevant to the production and sales of purchased primary forest products; and
- 11(e) to conduct inquiries on the following matters with respect to primary forest products:
  - (i) The cost of production, distribution and transportation;
  - (ii) Prices, markets and systems of classification; and
  - (iii) Any other matter related to marketing.

Since 2016, the Commission has conducted this stumpage study to provide guidance to the Department of Natural Resources and Energy Development as to the fair market values for standing timber originating on private woodlots in New Brunswick.

#### **OBJECTIVE**

The objective of this study is to determine provincial average stumpage values as it pertains to private woodlots in New Brunswick. The Commission considers those average values as the fair market value of standing timber.

#### STUDY PERIOD

This study covers a twelve-month, calendar year period from January 2022 through December 2022. The timeframe of this report has been chosen to assist the Department of Natural Resources and Energy Development (DNRED) in implementing changes to the Province's timber royalty rates in a manner that minimizes the time between the Commission's study results and implementation of changes to timber royalty rates.

#### **FACTORS THAT IMPACT STUMPAGE VALUE**

The widely accepted definition of stumpage is the value that a third party will pay to the owner of the trees in exchange for the right to harvest and market or consume the trees. The value of standing trees to the landowner is based on several factors. These factors can be categorized in four (4) general ways:

- 1. market/macro-economic factors (e.g., finished product value, import/exports, exchange rates).
- 2. land/forest conditions (e.g., tree size, terrain),
- 3. landowner policies/standards (e.g., harvest treatments, tree utilization expectations), and
- 4. operational efficiencies (e.g., road infrastructure, distance to mill, job size)

The value of stumpage on any one woodlot can be dependent upon these and other factors and can therefore vary from one woodlot to another throughout the Province. The purpose of this study is to generate statistically accurate average values for stumpage sold from private woodlots in the Province for the twelve-month period between January 2022 and December 2022.

#### STUDY DATA

The Commission adopted an approach to group species and/or products that are commonly applied in stumpage agreements between a woodlot owner and the person purchasing an owner's trees. The Commission also considered species/product groups that were commonly used for Crown timber harvests. A significant change to note in this study, compared to those of previous years, was the combining of the OSRWB and SPFRWB groups to create a new category called SWDPW, at the request of the DNRED. The SPFTL category was also removed from the analysis because no mills in New Brunswick purchase this category of product. Table 1 is a summary of the various species and products grouped and used to analyze stumpage values in this study.

Table 1. Species and Products groups used in the study.

| SPECIES    | PRODUCT     | GROUP   |
|------------|-------------|---------|
| CEDAR      | SAWLOG      |         |
| CEDAR      | STUDWOOD    | CEDSAW  |
| CEDAR      | SHINGLEWOOD | CEDSAW  |
| CEDAR      | TREELENGTH  |         |
| POPLAR     | CHIPS       |         |
| HARDWOOD   | CHIPS       | HWDPW   |
| HARDWOOD   | PULPWOOD    |         |
| POPLAR     | PULPWOOD    |         |
| HARDWOOD   | SAWLOG      | HWDSL   |
| RED PINE   | PULPWOOD    |         |
| HEMLOCK    | PULPWOOD    | OSRWB** |
| WHITE PINE | PULPWOOD    | OSKWB   |
| TAMARACK   | PULPWOOD    |         |

| SPECIES                        | PRODUCT                            | GROUP    |
|--------------------------------|------------------------------------|----------|
| RED PINE                       | SAWLOG                             |          |
| TAMARACK                       | SAWLOG                             | OSSL     |
| HEMLOCK                        | SAWLOG                             |          |
| WHITE PINE                     | SAWLOG                             | PISL     |
| SPF*                           | ROUNDWOOD                          |          |
| 3PF                            | BIOMASS                            | SPFRWB** |
| SPF*                           | CHIPS                              | SPERVID  |
| SPF*                           | PULPWOOD                           |          |
| SPF*                           | SAWLOG                             | SPFSL    |
| SPF*                           | STUDWOOD                           | SPFST    |
| SPF*                           | TREELENGTH                         | SPFTL    |
| OSRWB<br>& SPFRWB<br>GROUPS*** | PULPWOOD &<br>ROUNDWOOD<br>BIOMASS | SWDPW    |

<sup>\*</sup> SPF = Spruce, Fir, Jack Pine, \*\* RWB = Round wood biomass, including pulpwood and chips produced at the harvest site, \*\*\* New category in 2021

The analysis in this stumpage study, conducted by the Commission, is based on data from transactions wherein standing timber originating from a private woodlot was purchased and

harvested by someone other than the woodlot owner. There are two methods by which stumpage is purchased. The most common is based on species/product specific rates that are paid for the volume that is harvested, which is typically paid based on each individual load or transaction. The Commission uses the term 'transaction-based' to describe the data for this method. The second is the lump-sum method whereby the stumpage purchaser and the woodlot owner agree on a lump-sum value for all the trees to be harvested. The Commission uses the term 'lump-sumbased' to describe data collected for this method. For this study, representative data was requested for each of these two methods.

In New Brunswick, stumpage is typically purchased by either an independent forestry contractor or by a mill. Mills that purchase stumpage directly from woodlot owners typically do so in search of a specific species/product to consume in their own processing facility. Primary forest products other than those targeted for consumption by the stumpage purchaser are sold to other mills or consumers on the open market. Because there are few mills that purchase stumpage directly from woodlot owners to supplement their wood supply, the Commission collects 100% of data for mill-purchased stumpage during the study period, and this data represents just under a third of the data collected. Mill-purchased stumpage represents approximately 23% of the total private woodlot stumpage purchased during the study period (see Table 3 stumpage purchase totals). The percentage of mill-purchased stumpage increased by approximately 8% from the previous period. Independent contractors do not typically consume the products that they harvest and therefore rely on the open market to sell the products to mills or consumers. The Commission collected approximately 50% of its data from transactions between an independent contractor and a woodlot owner. The volume of data collected by the Commission for each stumpage purchase method and data source (mill or independent contractor) is summarized in Table 2 below.

Table 2. Data volume (m3) collected by the Commission for the study by method of stumpage purchase and source of the data.

| Species/Product | Contractor | Mill    | Totals  |
|-----------------|------------|---------|---------|
| CEDSAW          | 4,901      | 4,608   | 9,509   |
| HWDPW           | 58,110     | 83,913  | 142,023 |
| HWDSL           | 1,994      | 1,273   | 3,267   |
| OSSL            | 1,133      | 4,356   | 5,489   |
| PISL            | 19,695     | 4,595   | 24,290  |
| SPFSL           | 57,282     | 42,712  | 99,994  |
| SPFST           | 67,234     | 80,073  | 147,307 |
| SWDPW           | 34,346     | 26,817  | 61,163  |
| Totals          | 244,695    | 248,347 | 493,042 |

<sup>\* -</sup> See Table 1 for explanation of species and products terms used.

The Commission determined the total production volume of private woodlot forest products during the study period using data regularly filed with the Commission. In an earlier study, the Commission determined that 27% of private woodlot transactions in the Province were conducted by the owner of the wood where a stumpage transaction does not occur (i.e. producers who harvest and market products from a woodlot that they own). Therefore, the Commission applies an estimate that 73% of the total annual production is conducted under some form of stumpage

agreement between the owner and the harvester of the wood. The volume proportions of the collected data could then be evaluated against the estimated stumpage harvest (see Table 3).

Table 3. Total production estimated stumpage harvest levels and volume of data collected from New Brunswick private woodlots.

| Species/Product<br>Group | Total Production (m3) | Estimated<br>Stumpage<br>Transactions<br>(m3) * | Data Collected<br>(m3) | % of Estimated<br>Stumpage<br>Transactions |
|--------------------------|-----------------------|---|------------------------|--|
| CEDSAW                   | 26,646                | 19,452  | 9,509                  | 49%  |
| HWDPW                    | 395,519               | 288,729   | 142,023                | 49%  |
| HWDSL                    | 40,855                | 29,824  | 3,267                  | 11%  |
| OSSL                     | 8,732                 | 6,374   | 5,489                  | 86%  |
| PISL                     | 24,290                | 24,290  | 24,290                 | 100%**                                     |
| SPFSL                    | 238,110               | 173,820   | 99,994                 | 57%  |
| SPFST                    | 482,066               | 351,908   | 147,307                | 42%  |
| SWDPW                    | 227,736               | 166,247   | 61,163                 | 37%  |
| TOTALS                   | 1,455,678             | 1,062,645                                       | 493,042                | 46%  |

<sup>\* -</sup> Calculated as 73% of total private woodlot production

#### ANALYSIS

The methodology of how the study data was collected and analyzed is outlined in Appendix A, but can be summarized as follows:

- 1. **Each dataset was standardized** to establish consistent codes for species, products, units of measure, and destination mill.
- 2. **Data fields were created** for volume in cubic meters and stumpage rate per cubic meter, and calculations completed using the submitted data to fill those fields.
- 3. **Lump-sum transactions were pro-rated** by species/product group using the transaction-based data.
- 4. Datasets for all stumpage purchase methods were joined into a single database.
- Outliers were identified for exclusion within each species/product group by sorting the stumpage value per m3 field in ascending order (i.e. values below 5th and above 95<sup>th</sup> percentiles are trimmed).
- 6. The arithmetic average of stumpage value per cubic meter was calculated for each species/product group (i.e. sum of all individual rates divided by the number of records). This facilitated the reporting of standard deviations and confidence intervals at Provincial levels as well as regional averages (detailed tables in Appendix B).
- 7. Regional stumpage value averages were multiplied by the regional volumes for each species/product group and then tallied to produce total Provincial stumpage values and volumes. Where there was no regional stumpage data for a species/product group, the Provincial arithmetic average was used as a proxy. The regionally weighted totals were used to calculate Provincial average stumpage values (detailed tables in Appendix B).

<sup>\*\* -</sup> Actual PISL production was all produced through stumpage transactions.

#### **PROVINCIAL RESULTS**

Using the above analyses, and the study methodology detailed in Appendix A, the Commission has calculated the Provincial Average Stumpage value for each species/product group used for the study. Table 4 summarizes the results of the detailed analyses for Marketing Board region stumpage values and production levels are found in Appendix B as well as the results that were determined in the previous study. The Commission recommends that the Weighted Provincial Mean be considered as the "Fair Market Value" for the species/products groups listed.

Table 4. Current and previous study stumpage value results by species/product group for New Brunswick.

| Species/<br>Product<br>Group | Current<br>Weighted<br>Provincial<br>Average (\$/m3) | Previous Study<br>Provincial<br>Average (\$/m3) |
|------------------------------|--|---|
| CEDSAW                       | \$ 20.31   | \$ 21.59  |
| HWDPW                        | \$ 10.84   | \$ 10.53  |
| HWDSL                        | \$ 32.06   | \$ 22.72  |
| OSSL                         | \$ 15.97   | \$ 17.62  |
| PISL                         | \$ 15.50   | \$ 17.11  |
| SPFSL                        | \$ 21.83   | \$ 20.37  |
| SPFST                        | \$ 18.40   | \$ 16.84  |
| SWDPW                        | \$ 3.37  | \$ 3.37   |

**APPENDIX A - DETAILED STUDY METHODOLOGY** 

#### REQUESTS FOR DATA SUBMISSIONS

In New Brunswick, stumpage is typically purchased from private woodlot owners by one of two groups: Independent forestry contractors, or mills. Stumpage is also typically purchased either by applying a fixed rate per unit for specific products sold to a mill, or through a lump-sum offer whereby the owner is paid a predetermined sum of money for all products that are generated and sold from a woodlot, or part thereof.

In some cases, independent contractors and their woodlot-owning clients engage the services of their local Marketing Board to administer the application of stumpage rates upon which they have agreed. Five of the seven regional Marketing Board offices offer this service to their clients, which results in the collection of electronically stored transaction data. Similarly, mills that purchase stumpage directly from woodlot owners also maintain electronic records at the transaction level. The Commission requests data submissions from the Marketing Boards and mills for the following items and period in question: transportation certificate no.; load slip no.; date; PID no.; species; product; volume; unit of measure; destination mill; stumpage paid; delivered value; MB region. The data requested in this format comprises at least 80 percent of the volume data collected.

To supplement the transaction-based data, the Commission also solicits submissions directly from independent forestry contractors in the form of a fillable survey. With this format, the Commission requests woodlot level data for both types of stumpage agreements (i.e. rate per unit and lump-sum). In the case of rate-per-unit data, the Commission requests submissions of the following items for the study period: PID no., species, product, total volume, unit of measure, stumpage rate per unit, MB region. For lump-sum data, the Commission requests submissions of the following items for the study period: PID no., species, product, total volume, unit of measure, lump-sum paid, MB region.

#### DATA STANDARDIZATION

Upon receipt of data submissions, the data for certain fields must be standardized. This data includes species, product, unit of measure, destination mill, and MB region. Standardization is required because participants may apply their own format in reporting these items. For example, species may be identified as spruce/fir or spruce/fir/jack pine in data submissions and is standardized as SPF prior to its importation to the master data file.

Additionally, product volumes are submitted in various units of measure when sold to a mill. To facilitate more efficient analysis of the data, the Commission must convert the volumes from their original units of measure to a consistent volume in solid cubic meters. Conversion factors are developed and updated annually by the Department of Natural Resources and Energy Development to provide for the conversion from multiple units of measure to cubic meters. These factors are specific to the original unit of measure, the species and/or product combination, the season and the region in which the products originate. The Commission applies appropriate conversions so that all volume data is expressed in a cubic meter (m3) unit of measure.

#### CREATION OF CALCULATED FIELDS AND PRO-RATING LUMP-SUM DATA

Upon completion of data field and volume unit of measure standardization (solid cubic meters), the Commission then calculated the stumpage value per cubic meter for each record in the data

set. That is, dollars per cubic meter, or \$/m3. Exclusively within the transaction-based data, the delivered value per cubic meter is also calculated.

Lump-sum data does not provide species/product specific rates, which requires the additional step of pro-rating gross values paid in lump-sum to the species/product level. The following method was applied to assign values to the individual species/products groupings:

STEP 1: Calculate the Lump Sum average per-unit stumpage price: Lump sum value divided by total scaled volume

Data sources: Lump sum price and species/product volumes from Producer records

STEP 2: Calculate the stumpage value using the Provincial Average. Per-Unit prices for each species/product multiplied by the species/product volume from Producer records.

Data sources: Per-unit stumpage price database and species/product volume from Producer records

STEP 3: Calculate the percentage difference in lump sum paid vs calculated stumpage value in step 2.

STEP 4: Calculate the Pro-rated Per-Unit Stumpage Prices for the Lump Sum block using the percentage difference in Step 3 applied to the Provincial Per-Unit Stumpage price.

Sample Calculation (using hypothetical numbers)

"A" Lump Sum Payment: \$100,000

Submitted Volume: 7,000 m3

"B" Average Stumpage Price: \$14.29 per m3

| Products:    | "C"<br>Volume (m3) | "D" Provincial Avg. Stumpage (\$/m3) | Calculated<br>Stumpage Value<br>(=C x D) | Pro-rated (\$/m3)<br>Stumpage Prices<br>(=D/1-E) |
|--------------|--------------------|--------------------------------------|--|--|
| SPF Sawlogs  | 1,000              | \$ 17.28                             | \$ 17,280                                | \$ 20.95   |
| SPF Studwood | 2,000              | \$ 15.51                             | \$ 31,020                                | \$ 18.80   |
| SPF Pulpwood | 1,000              | \$ 4.31                              | \$ 4,310                                 | \$ 5.22  |
| PO Pulpwood  | 2,500              | \$ 9.96                              | \$ 24,900                                | \$ 12.07   |
| MH Firewood  | 500                | \$ 9.96                              | \$ 4,980                                 | \$ 12.07   |
| Total        | 7,000              |                                      | \$ 82,490                                | \$ 14.29   |
|              |                    |                                      | "E" = 14.8%                              |  |

<sup>&</sup>quot;B" = Average Per Unit Stumpage Price: Lump sum stumpage sales data reported by private wood producer or woodlot owner.

<sup>&</sup>quot;C" = Volume as submitted by producer or woodlot owner by species/product group and converted to cubic meters (m3).

<sup>&</sup>quot;D" = Provincial Per-Unit Stumpage Value: Derived from per-unit provincial stumpage price data (i.e. sample calculation reflected the prices published in the NB Stumpage Study Results - October 2014-September 2015)

"E" = % Difference in Lump Sum vs Calculated Stumpage Value: Calculated Stumpage value is the Provincial Average per-unit price multiplied by volume for each species/product within the lump sum transaction.

#### COMBINING DATA FORMATS AND TRIMMING OUTLIERS

Upon completion of all data standardization and creation of calculated fields, data from the three formats was combined in a separate database. When data format combining was complete, each species/product group was sorted in ascending order by the stumpage rate per cubic meter. This was done to facilitate the identification and exclusion of outliers from the final analyses.

As it pertained to outliers within the dataset, and once values were sorted, transactions located below the fifth (5<sup>th</sup>) and above the ninety-fifth (95<sup>th</sup>) percentiles were identified and excluded from the statistical calculations for each species/product group. This method was chosen by the Commission as it is consistent with that used in similar studies from neighboring jurisdictions of Nova Scotia and Maine.

#### STUMPAGE VALUE ANALYSIS

The primary objective of the study was to determine the mean or average stumpage value of the various species/product groups for the Province. Arithmetic mean or average refers to the sum of the values in a numeric data field divided by the number of records found in the same field. In the case of this study, the field of interest was the stumpage value expressed in dollars per cubic meter (\$/m3). For each species/product group, the stumpage values per cubic meter from all data were tallied and divided by the number of records in the group. The descriptive statistics calculated for the species/product groups are detailed in Table 5 below.

Table 5. Summary of descriptive statistics calculated for the species/product groups.

| Statistic                | Description   |
|--------------------------|---|
| Species/Product          | Grouping of the species and products for a timber class to be described.  |
| Mean                     | Arithmetic mean is the sum of stumpage rate (\$/m3) values in the study data divided by the number of records for each species/product group.   |
| Standard<br>Deviation    | For each species/product group the standard deviation was calculated as an indicator of the variability of the data. Standard deviation is a number used to tell how measurements for a group are spread out from the average (mean) or expected value. |
| Minimum                  | Lowest stumpage value (\$/m3) within the species/product groups.  |
| Maximum                  | Highest stumpage value (\$/m3) within the species/product groups.   |
| Response<br>Volume       | Total volume (m3) of the transactions in the collected data for each species/product group.   |
| Number of Data<br>Points | Total number of data points used to conduct the calculations.   |
| Confidence<br>Interval   | When calculating a mean using the response data, the confidence interval is the range of values within which there is a certain percentage of confidence that the true mean falls within.   |

The Commission used the following formula to calculate confidence intervals for each species/product group, as follows:

Confidence interval =  $\mu \pm Z_{\alpha/2}*(s/\sqrt{n})$ 

Where:  $\mu$  = mean of stumpage / m3

 $Z_{\alpha/2} = Z\alpha/2$  is the critical value of the Normal distribution at  $\alpha/2$ 

99% Confidence Level -  $Z\alpha/2 = 2.575$ 

s = standard deviation

n = total # of data points in the response data

It should be noted that due to the robustness of the dataset, the Commission was able to apply a significant confidence level of ninety-nine percent (99%) for these calculations.

The arithmetic average by species/product group was also calculated at the Marketing Board region level. In cases where data did not exist for a certain species/product group for a Marketing Board region, the Provincial average was used as a proxy. The mean regional stumpage values were then weighted (multiplied) by the regional production to determine the Provincial average stumpage value.

#### **VERIFICATION OF TRANSACTION-BASED DATA**

To validate the transaction-based data, a procedure has been developed in conjunction with PriceWaterhouseCoopers, LLC to verify the accuracy of the submitted transaction-based data. The procedure includes a sampling methodology that is in alignment with internationally recognized financial auditing standards – 9100 Reports on the Results of Applying Specified Auditing Procedures to Financial Information Other than Financial Statements. For each submission participant's data, the following approach was applied to develop samples for verification:

- 1. Each record of data in the participant's submission is issued a unique identification number within the dataset.
- 2. Based on the total number of records in each participant's submission, the number of samples required for verification was determined using statistical sampling parameters of 95% confidence level, +/-5% margin of error and an expected error rate of +/- 2%.
- 3. From each participant's submission, the sample selections were made using MS Excel random number function to select random record identification numbers until the required number of samples were selected.
- 4. Copies of the source documentation consisting of transportation certificates, load slips, and proof of stumpage payment for each transaction that was selected was then requested from each participant.
- 5. Using the source documentation, the following fields were verified for accuracy in the dataset:
  - a. Date
  - b. Transportation Certificate number and/or load slip number
  - c. Species
  - d. Product
  - e. Volume
  - f. Unit of Measure
  - g. Stumpage Paid

APPENDIX B - DETAILED PROVINCIAL AND REGIONAL RESULTS

#### PROVINCIAL RESULTS – ARITHMETIC AVERAGES

| Species/         |          |                       |          |                    | Response       |                       | Confidence           |
|------------------|----------|-----------------------|----------|--------------------|----------------|-----------------------|----------------------|
| Product<br>Group | Average* | Standard<br>Deviation | Minimum  | Maximum<br>(\$/m³) | Volume<br>(m³) | Number of Data Points | Interval*<br>(\$/m³) |
|                  | (\$/m³)  |                       | (\$/m³)  |                    |                |                       |                      |
| CEDSAW           | \$ 21.20 | \$ 7.33               | \$ 9.17  | \$ 42.30           | 8,857          | 294                   | ± \$ 1.10            |
| HWDPW            | \$ 11.40 | \$ 4.04               | \$ 3.85  | \$ 19.08           | 127,138        | 4,365                 | ± \$ 0.16            |
| HWDSL            | \$ 32.59 | \$ 10.66              | \$ 14.29 | \$ 68.05           | 2,917          | 152                   | ± \$ 2.23            |
| OSSL             | \$ 14.33 | \$ 4.14               | \$ 9.63  | \$ 37.73           | 4,948          | 159                   | ± \$ 0.85            |
| PISL             | \$ 15.56 | \$ 9.23               | \$ 0.40  | \$ 30.38           | 21,395         | 723                   | ± \$ 0.88            |
| SWDPW            | \$ 3.48  | \$ 1.63               | \$ 0.87  | \$ 7.49            | 54,653         | 1,808                 | ± \$ 0.10            |
| SPFSL            | \$ 21.85 | \$ 5.00               | \$ 13.06 | \$ 32.86           | 90,213         | 2,609                 | ± \$ 0.25            |
| SPFST            | \$ 18.18 | \$ 3.98               | \$ 11.34 | \$ 26.25           | 132,542        | 3,721                 | ± \$ 0.17            |

<sup>\* -</sup> Arithmetic average – does not reflect regional weighting

## REGIONAL RESULTS BY SPECIES/PRODUCT GROUP WITH REGIONAL VOLUME WEIGHTING

Note: Shaded Cells indicate use of provincial average as a proxy where no stumpage data was collected from a particular region.

| CEDSAW                    |                                |                            |                            |  |
|---------------------------|--------------------------------|----------------------------|----------------------------|--|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total<br>Regional<br>Value |  |
| CV                        | \$ 18.81                       | 4,246                      | \$ 79,867.26               |  |
| MAD                       | \$ 21.20                       | 5,680                      | \$ 120,416.00              |  |
| NSH                       | \$ 14.63                       | 1,335                      | \$ 19,531.05               |  |
| NTH                       | \$ 22.10                       | 1,122                      | \$ 24,796.20               |  |
| SENB                      | \$ 19.52                       | 465                        | \$ 9,076.80                |  |
| SNB                       | \$ 20.05                       | 11,286                     | \$ 226,284.30              |  |
| YSC                       | \$ 24.37                       | 2,512                      | \$ 61,217.44               |  |
| TOTALS                    |                                | 26,646                     | \$ 541,189.05              |  |
| WEIGHTED \$/ M3           | \$ 20.31                       |                            |                            |  |

| HWDPW                     |                                |                            |                         |  |
|---------------------------|--------------------------------|----------------------------|-------------------------|--|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |  |
| CV                        | \$ 15.53                       | 68,072                     | \$ 1,057,158.16         |  |
| MAD                       | \$ 11.40                       | 30,652                     | \$ 349,432.80           |  |
| NSH                       | \$ 13.75                       | 43,671                     | \$ 600,476.25           |  |
| NTH                       | \$ 7.98                        | 51,544                     | \$ 411,321.12           |  |
| SENB                      | \$ 7.41                        | 75,025                     | \$ 555,935.25           |  |
| SNB                       | \$ 9.63                        | 71,483                     | \$ 688,381.29           |  |
| YSC                       | \$ 11.35                       | 55,072                     | \$ 625,067.20           |  |
| TOTALS                    |                                | 395,519                    | \$ 4,287,772.07         |  |
| WEIGHTED \$/ M3           | \$ 10.84                       |                            |                         |  |

#### **HWDSL**

| HWDSL                     |                                |                            |                         |  |
|---------------------------|--------------------------------|----------------------------|-------------------------|--|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |  |
| CV                        | \$31.87                        | 1,905                      | \$ 60,712.35            |  |
| MAD                       | \$32.59                        | 11,864                     | \$ 349,432.80           |  |
| NSH                       | \$33.75                        | 43,671                     | \$ 600,476.25           |  |
| NTH                       | \$21.43                        | 166                        | \$ 3,557.38             |  |
| SENB                      | \$19.08                        | 5,908                      | \$ 112,724.64           |  |
| SNB                       | \$27.98                        | 2,160                      | \$ 60,436.80            |  |
| YSC                       | \$40.42                        | 7,436                      | \$ 300,563.12           |  |
| TOTALS                    |                                | 40,855                     | \$ 1,309,932.05         |  |
| WEIGHTED \$/ M3           | \$ 32.06                       |                            |                         |  |

| OSSL                      |                                |                            |                         |
|---------------------------|--------------------------------|----------------------------|-------------------------|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |
| CV                        | \$ 15.90                       | 282                        | \$ 4,483.80             |
| MAD                       | \$ 14.33                       | 3,042                      | \$ 43,591.86            |
| NSH                       | \$ 0.00                        | 0                          | \$ 0.00                 |
| NTH                       | \$ 28.77                       | 1,001                      | \$ 28,798.77            |
| SENB                      | \$ 14.33                       | 1,446                      | \$ 20,721.18            |
| SNB                       | \$ 14.57                       | 906                        | \$ 13,200.42            |
| YSC                       | \$ 13.96                       | 2,055                      | \$ 28,687.80            |
| TOTALS                    |                                | 8,732                      | \$ 139,483.83           |
| WEIGHTED \$/ M3           | \$ 15.97                       |                            |                         |

| PISL                      |                                |                            |                         |
|---------------------------|--------------------------------|----------------------------|-------------------------|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |
| CV                        | \$ 0.00                        | 0                          | \$ 0.00                 |
| MAD                       | \$ 0.00                        | 0                          | \$ 0.00                 |
| NSH                       | \$ 15.56                       | 461                        | \$ 7,173.16             |
| NTH                       | \$ 15.29                       | 5,149                      | \$ 78,728.21            |
| SENB                      | \$ 15.38                       | 2,171                      | \$ 33,389.98            |
| SNB                       | \$ 15.65                       | 7,960                      | \$ 124,574.00           |
| YSC                       | \$ 15.61                       | 870                        | \$ 13,580.70            |
| TOTALS                    |                                | 16,611                     | \$ 257,446.05           |
| WEIGHTED \$/ M3           | \$ 15.50                       |                            |                         |

| SWDPWD                    |                                |                            |                         |
|---------------------------|--------------------------------|----------------------------|-------------------------|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |
| CV                        | \$ 5.30                        | 7,612                      | \$ 40,343.60            |
| MAD                       | \$ 3.47                        | 27,234                     | \$ 94,501.98            |
| NSH                       | \$ 3.47                        | 23,107                     | \$ 80,181.29            |
| NTH                       | \$ 4.04                        | 32,101                     | \$ 129,688.04           |
| SENB                      | \$ 2.77                        | 50,113                     | \$ 138,813.01           |
| SNB                       | \$ 3.46                        | 64,865                     | \$ 224,432.90           |
| YSC                       | \$ 3.26                        | 22,704                     | \$ 74,015.04            |
| TOTALS                    |                                | 227,736                    | \$ 781,975.86           |
| WEIGHTED \$/ M3           | \$ 3.43                        |                            |                         |

| SPFSL                     |                                |                            |                         |
|---------------------------|--------------------------------|----------------------------|-------------------------|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |
| CV                        | \$20.01                        | 45,468                     | \$ 909,814.68           |
| MAD                       | \$21.85                        | 32,974                     | \$ 720,481.90           |
| NSH                       | \$21.85                        | 4,408                      | \$ 96,314.80            |
| NTH                       | \$26.72                        | 12,718                     | \$ 339,824.96           |
| SENB                      | \$21.10                        | 36,598                     | \$ 772,217.80           |
| SNB                       | \$21.98                        | 72,261                     | \$ 1,588,296.78         |
| YSC                       | \$22.89                        | 33,683                     | \$ 771,003.87           |
| TOTALS                    |                                | 238,110                    | \$ 5,197,954.79         |
| WEIGHTED \$/ M3           | 21.83                          |                            |                         |

| SPFST                     |                                |                            |                         |
|---------------------------|--------------------------------|----------------------------|-------------------------|
| Marketing Board<br>Region | Regional<br>Average<br>(\$/m³) | Regional<br>Volume<br>(m3) | Total Regional<br>Value |
| CV                        | \$ 18.25                       | 15,691                     | \$ 286,360.75           |
| MAD                       | \$ 18.18                       | 39,363                     | \$ 715,619.34           |
| NSH                       | \$ 22.62                       | 51,014                     | \$ 1,153,936.68         |
| NTH                       | \$ 18.81                       | 71,967                     | \$ 1,353,699.27         |
| SENB                      | \$ 17.13                       | 142,818                    | \$ 2,446,472.34         |
| SNB                       | \$ 18.00                       | 121,310                    | \$ 2,183,580.00         |
| YSC                       | \$ 18.35                       | 39,903                     | \$ 732,220.05           |
| TOTALS                    |                                | 482,066                    | \$ 8,871,888.43         |
| WEIGHTED \$/ M3           | \$ 18.40                       |                            |                         |