

**Directive No.** 97-05**Date** September 23, 1997

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**Subject****Calculation of Timber Dues - Marginal Coniferous Saw Timber**

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**Purpose**

To facilitate good forest management for timber harvest in Alberta by encouraging the utilization of high cost or low value timber.

To develop a timber dues rate system that accurately reflects the economic value of timber and the final selling price of the manufactured saw timber product.

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**Policy**

Where the value of coniferous timber is low (e.g. low valued species, high cull), the timber is endangered by acts of nature or development, or where hauling costs are high, timber dues rates attempt to reflect the lower economic value of the delivered wood. This Directive applies to those operators who sell or produce coniferous saw timber products from marginal timber volumes.

The volume of marginal coniferous timber input into the dues rate calculation is determined as described in this Directive and submitted on the timber return (Form TM 7).

Forest Management Agreement (FMA) dues rates are established by each Agreement. These rates will be either a negotiated marginal rate of dues for specific products from the FMA or the Timber Management Regulation "General Rate". Where an FMA refers to the General Rate, all categories of dues, including the marginal volume categories, will apply. Approval by the Executive Director, Forest Business & Policy Branch of eligibility for marginal dues rates prior to harvest is required only if said timber volumes originate from:

- blowdown,
- selective harvest, or
- commercial thinning areas.

Timber harvest must be completed in a timely manner so as to limit the reduction in timber condition, due to these damaging agents. Damage caused by 'red belt', hail, snow, sun scald or flood, is not eligible for marginal timber dues calculation. Categories considered for modified saw timber dues are:

1. Balsam fir, white bark pine, alpine fir, and larch throughout the province, and jack pine, hybrids of jack pine and hybrids of lodgepole pine in the A03 to A13, L01 to L09, L51, and S07 Forest Management Units;
  2. Small sawlogs;
  3. Tops;
  4. Fire, wind, insect or disease damage;
  5. High cull;
  6. Thinnings from commercial thinning operations;
  7. Timber cut to perpetuate uneven age stands; and
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8. Endangered timber.

The disposition holder is solely responsible for calculating the timber volume eligible for each dues category and for the accuracy of that determination. Either log scale data or survey results may be used to determine timber volume. When approved by the Executive Director scaling can determine marginal timber volumes. The onus will be on the mill to adhere to the following:

1. correctly scale and record the timber;
2. submit scale data within 21 days following the end of the month of production;
3. sample objectives for the defined scaling population must be met; and
4. late submissions of scale data may, at the discretion of the Executive Director, result in the General Rate of dues being used to calculate the amount owing. There will be no provision for re-submission of marginal timber dues claims.

A disposition holder may decide that it is more practical and more accurate to determine marginal timber volume using survey methods rather than separate log scaling populations. Surveys must be completed by the disposition holder and approved by the Executive Director.

Applications for marginal timber dues rates from operators who do not employ a weigh scale for timber volume calculation will be considered, provided that procedures for log scaling, log segregation, or field surveys are adhered to by the operator. Approval of the Executive Director is required for all marginal dues claims received from non-weigh scale operations.

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## Procedure

Rates of coniferous saw timber dues are outlined in Section 81 and Schedule 3 of the Timber Management Regulation. The disposition holder must identify areas of damaged timber and high cull, establish distinct scaling populations for all forms of marginal timber regardless of how the timber volume is to be accounted for, and be able to support all volume claims with log scale data or field survey results. Failure to do so may result in the application of the General Rate for all volume reported on the timber return. The following defines the procedure to be used under each circumstance.

### **Species - Section 81(2)**

Species listed in the above section of the Timber Management Regulation will be considered for marginal dues. The species must be correctly coded in the log scale data.

### **Small Sawlogs - Section 81(3)**

Sawtimber with a log size of 0.024m<sup>3</sup>/metre, with a scaled length between 2.4m and 4.8m (except for the upper merchantable log which can be as long as 7.2m) will be eligible for marginal dues. Small sawlogs must be identified with the product code '06'.

### **Tops - Section 81(4)**

Any volume above the minimum utilization standard's top diameter shall be

eligible for marginal dues.

**Damaged Timber - Section 81(6)**

This category will only be applied to damaged timber volumes. Fire damage will be eligible when the timber has been charred a minimum of 0.9m from the ground (0.3m stump allowance + 0.6m bucking allowance), measured from the ground. In order to qualify as wind damage, the tree must be either broken or blown down. Insect and disease damaged areas will only be eligible for marginal dues if the Department directs the disposition holder to harvest the volume due to this type of damage. Damage caused by defoliating insects is not eligible. Sanitation or pro-active harvest cuts should be assessed as 'endangered' timber, and different dues rates will apply.

**High Cull - Section 81(7)**

Marginal timber dues may be obtained on the defect timber volume where a minimum area of 4 hectares has 15% or greater cull. This area must be identified on the Timber Return. The same general requirements outlined below for marginal timber surveys will apply when determining areas of high cull.

Destructive sampling will be completed as per the procedures in the “Alberta Phase 3 Forest Inventory: Tree Sectioning Manual”.

$$Cull\% = \frac{\sum Field\ cull + Scale\ cull}{\sum Field\ cull + Delivered\ weight(tonnes)} * 100\%$$

**Commercial Thinning - Section 81(8)**

In order for volumes harvested from overstocked, even aged stands of pine or spruce being thinned at mid-rotation to qualify for this exception, they must be thinned in order to improve final harvest yield. Marginal dues do not apply to mixedwood stands where immature conifers are protected during the harvest of deciduous or mature conifer overstories. All commercial thinning operations must be completed under a thinning plan approved prior to harvest by the Chief Forester, or as designated by the Executive Director. The Timber Management Regulation mandates that the thinnings harvested from commercial thinning operations will only qualify for marginal dues if they are used to produce lumber. Otherwise, the General Rate of timber dues for OSB, pulp and veneer will apply.

**Selection Harvesting - Section 81(9)**

This category applies to selection cutting that perpetuates an uneven aged stand structure in order to maintain a flow of timber removal over many rotations. Uneven age management plans, including surveys indicating the distribution of age classes, are required to verify that harvesting will encourage understory recruitment and perpetuate the stand over time. These plans will be reviewed and if appropriate, approved by the Executive Director. Timber dues are payable at the base rate. Reductions will not apply to mixedwood stands.

### **Endangered Timber - Section 81(10)**

Endangered timber, as designated by the Executive Director, is eligible for marginal dues rates.

### **Determining Volume Eligible for Dues Modification**

#### **Log Scale Data**

Timber volumes must be reported using the scaling procedures described in the Alberta Scaling Manual. Each category of timber dues rates must be identified independent of other forms of dues, and any timber volumes payable at the General Rates of dues. The disposition holder must maintain a record of log scale data. Sufficient log scale sampling must ensure that harvest volumes determined are statistically significant.

Annual reviews of scaling populations may be made to determine if sampling targets were met. Any mill that under-samples a population by more than 20% may lose claim to any marginal timber status it received. The scaled volumes will be adjusted accordingly and reimbursements, if any, will be necessary for any product sold at the lesser rate.

#### **Marginal Timber Field Surveys**

The disposition holder may conduct field surveys to determine eligible marginal timber volume. All survey data must be submitted to the Chief Forester, with the appropriate Timber Return, for review and approval. The operator will be advised of the approved marginal volumes for production and revenue control.

Calculations for marginal timber volume determined by survey methods must exclude any timber which will be claimed under another dues category or optionally, the operator can waive any greater rate of dues payable on the same timber.

The proportion of eligible timber, as determined by a field survey, may be applied as either:

1. the volume from specific disposition for a defined timber year;
2. a percentage of the total harvested volume for a disposition and timber year;
3. the volume harvested from a disposition established specifically for the harvesting of marginal timber; or,
4. the volume harvested under a separate log scaling population.

#### **Marginal Timber Field Survey Standards**

- the area of eligible marginal timber (in hectares) must be determined for each stand;
- field surveys must have an adequate number of plots established to determine the percentage of damaged stems. This percentage will be used to calculate the total damaged volume. The percentage may be determined using a 2 metre wide transect plot line (travelling through the stand at its longest axis) or creating one

- 100m<sup>2</sup> plot for each 4 hectares of damaged timber;  
trees will be tallied by diameter at breast height (dbh) and have the form of dues modification noted for each sample.

Using this data, the volume of damage for each sample area will be determined using the appropriate “Ecologically Based Single Tree Volume Tables”. If random height sampling is not used, the average random height must be taken from the tables.

$$\text{Eligible volume} = \frac{\sum \text{Damaged area} * \sum \text{Damaged volume for sample}}{\sum \text{Sample area}}$$

### **Non Weigh Scale Mills**

Marginal timber dues category rates may be considered if:

1. 100% Alberta Cubic Metre scale, by a certified scaler, is used for small stem or species dues rates;
2. Field surveys are conducted as required; and
3. Species under dues modification are segregated, sawn and recorded separately.

### **Timber Returns**

The reporting of harvest volumes on Timber Returns must be consistent with that reported on log scale or field survey data. Declarations of timber volumes eligible for marginal dues rates form an integral part of the Timber Return. All declarations must be submitted prior to the date in which the timber dues become due and owing. Declarations submitted after that date will require a recalculation of the Timber Return, and will thus cause the Return itself to become overdue, thereby contravening s.115 of the Timber Management Regulation. Any declarations submitted after timber dues have been assessed may be forfeited. The lesser rate may be paid on any volume sold up to the volume deemed to be on hand for all sawlog products.

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## Authorities

**Section 76 of the Timber Management Regulation** - provides the Minister with the authority to determine when timber dues will be assessed on Crown timber volume.

**Section 77 of the Timber Management Regulation** - timber dues may be modified for endangered timber or timber that would be exceptionally expensive to cut or manufacture.

**Section 81 of the Timber Management Regulation** - provides timber dues rates used for lumber products.

**Section 99 of the Timber Management Regulation** - requires all timber producers to measure and scale timber volumes under the procedures established by the Minister under the Scaling Regulation. Establishes the procedures of the Alberta Scaling Manual as the acceptable standard for scaling.

**Section 115 of the Timber Management Regulation** - the disposition holder shall submit Form TM 7 within 30 days following the end of each month.

**Section 7(1) and 7(2) of the Scaling Regulation** - designated loads of timber or wood products must be scaled. Records of timber scaling data must be submitted within 21 days following the end of each month in which measurements were carried out.

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## Cross- Reference

- LFD Directive 98-03 - “**Quota Production Chargeability**”
- Applicable Ecologically Based Single Tree Volume Tables
- Alberta Scaling Manual

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## Contacts

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