



**BRITISH
COLUMBIA**

The Best Place on Earth

**BRITISH COLUMBIA
MINISTRY OF FORESTS**

**Scaling Requirements
in
British Columbia**

September 2009



Revenue
Branch

Scaling Requirements in British Columbia 2009

Introduction

If you are going to apply for a timber sale licence, cutting permit or some other licence to harvest Crown timber or harvest timber on private land, it is important that you understand some of the basic scaling requirements in advance.

Responsibilities for Scaling:

If you have a tenure to harvest Crown timber or you want to harvest timber on your own private land, you have the responsibility to ensure your timber is properly scaled.

More specifically, subject to approval of your plans by the ministry, you are responsible for:

- ensuring the timber is scaled as soon as possible,
- ensuring that timber is scaled at a place designated for scaling,
- ensuring the scale is complete and accurate,
- ensuring scale returns are submitted as required by the Forest Service.

Scaling: An Overview

Scaling is the measurement of timber to determine its volume and quality or grade. Scale data is reported by species and grade, and volumes are expressed in cubic metres (m³). One cubic metre of timber can be viewed as a cubic metre of solid wood, free of any rot, hole or char.

Scaling is performed by scalers who are licenced and authorized to scale by the Ministry of Forests and Range. The law on scaling is contained in the *Forest Act* and the *Scaling Regulation*. The *Scaling Manual* describes scaling procedures in detail.

In British Columbia, all timber (including private timber) that is harvested must be scaled. The scale provides the data used by the Ministry of Forests to assess and invoice stumpage and account for harvested volumes. The data is also used by individuals and companies who buy and sell logs.

Scaling Methods

In order for you to meet your scaling responsibilities, you must choose one of the approved methods of scaling, and receive approval by the ministry.

1. Piece Scale:

With this method, each and every log or piece is measured and the volume and grade is determined for each piece. A piece scale is the most accurate method of scaling, but can be expensive if the logs are small and truckloads contain many pieces.

2. Weight Scale:

With this method, every truck load is weighed and some of the loads (the samples) are piece scaled. The sample data is then used to determine the volume and grade of all the timber that was weighed. The total of the loads weighed over the scale in a one year period is known as the weight scale population. Volumes are determined by multiplying the total weight of the loads by the volume to weight ratio derived from the samples which are both weighed and piece scaled, as:

$$\text{Volume} = \text{weight} \times \text{the ratio}$$

Weight scaling is usually done at a lower cost than piece scaling. While the estimate of the total population volume can be as reliable as piece scaling, estimates for smaller volumes calculated using only a portion of the samples taken over the full one-year period may be less accurate.

Ministry of Forests and Range

If your timber is to be scaled by weight scaling, you should be aware of the potential limitations of this method. For more information go to the links to the Weight Scale System and the Weight Scale Sampling chapters of the *Scaling Manual*.

[Weight Scale System](#)

[Weight Scale Sampling](#)

You should also be aware of options which will best help you meet your responsibility for an accurate scale. These are discussed later in this informational paper.

Other Methods:

Other methods of scaling may be approved by the ministry. Approval of other methods is largely confined to scaling minor volumes and scaling special forest products where the ministry approves the manufacture of special forest products. In the case of Crown timber, the specific special forest products must be named in the licence document in order for special forest products to be manufactured on the area of harvest and scaled as described product. For more information, please see the Special Forest Products chapter of the *Scaling Manual*. It is linked below:

[Special Forest Products](#)

Things to Consider Under Weight Scaling

If weight scale is your method of scaling, it is important that you find out how your timber will be scaled under the population. You should be aware of a couple of things:

- In weight scaling, the samples used to determine the ratio are selected at random. It is possible that none of your timber will be selected as a sample. If this is the case, your volumes will be based entirely on timber, which may not reflect your own timber in terms of quality, species or grade. This could have an impact on the amount of stumpage you pay. Example: if you are pre-sorting logs to a standard that ensures that 80% of the volume is grade Y or 4 but all the samples selected had a grade content that was only 60% grade Y or 4, you will be billed based on the higher content of full stumpage grades that were in the selected samples.
- Also, unless you request a final billing in advance of having your timber scaled, timber from non-replaceable tenures such as timber sale licences under BCTS, licences to cut, and cutting on private land, it will be invoiced at ratios which exist at the time the invoices are calculated. This means the volume and grade for your timber will be based on the ratio in effect on the date your timber is invoiced.
- For replaceable tenures such as cutting permits, under forest licence, timber is invoiced on the monthly revised ratio, but is also subject to a year-end adjustment (final billing) which reflects all the samples taken over the entire year.

Ministry of Forests and Range

You should discuss these with the weight scale operator and the ministry to assess their significance.

If you believe the weight scaling arrangements will not provide an accurate scale for your timber, you may have other options.

- Set up separate strata for your timber, if your harvest is big enough and the weight scale operator agrees; or
- Set up your own population, if your harvest is big enough and the weight scale operator agrees.

If none of these are feasible, your only option may be to elect piece scaling.

Ministry of Forests and Range

Approvals and Advice

Once you have decided where and how your timber is to be scaled, you must contact your local Ministry of Forests office for approval. Be sure to contact your local office for details on how to submit your plan and for any assistance in understanding your responsibilities for scaling. Below is a link to the Regions and Districts web sites:

[Regions and District Information](#)

This Publication is available from
Revenue Branch, Ministry of Forests
Phone: 387-1701