



Forest Legislation and Policy Reference Guide 2009

Chapter Five

Forest Revenue

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Forest Revenue

5.1 Stumpage

Stumpage is the purchase price that individuals and firms must pay when they harvest Crown timber in British Columbia. Stumpage is not a tax on logging, it is a payment for utilization of a public resource.

Section 103 of the *Forest Act* provides authority to charge stumpage within the description of each form of tenure. **Section 105** of the *Forest Act* specifies that stumpage rates will be determined according to policies and procedures approved for the region by the Minister. While the stumpage rules are defined as policy and procedures, both the Coast and Interior appraisal manuals are in fact law, not policy.

The Ministry of Forests and Range may use **section 136** of the *Forest Act* as the authority to obtain logging and manufacturing costs and log and lumber selling price information for the appraisal manuals and stumpage rate calculations.

The *Ministry of Forests Act*, **section 4(e)**, states that, under the direction of the minister, the ministry is to assert the financial interest of the Crown in its forest and range resources in a systematic and equitable manner. These are two of the most important principles regarding stumpage rates. Revenue Branch ensures that stumpage rates are determined systematically by using procedures defined in the Coast and Interior Appraisal Manuals.

Revenue Branch also maintains several standing advisory committees from which to solicit advice on revenue policy. These committees have representation from industry associations as well as regional revenue staff.

The Coast and Interior Appraisal Manuals require that appraisal data submissions (ADS) be signed by a registered professional forester (RPF) or registered forest technologist (RFT), registered with the Association of British Columbia Forest Professionals (ABC FP). The ADS contains the field data that is used to calculate a stumpage rate or an upset stumpage rate in the case of BC Timber Sales (BCTS). **Section 105 (5.2)** of the *Forest Act* specifies that the holder of an agreement, who is required in the appraisal manual(s) to submit appraisal information, must comply with this requirement.

5.1.1 Current Policy

The following is a summary of current stumpage policy. Please refer to the references for more detail.

5.1.1.1 Market Pricing

Since February 29, 2004 for the coast region, and July 1, 2006 for the interior regions, stumpage rates in British Columbia are determined using the Market Pricing System (MPS). The central concept which underlies the MPS is that auctions of standing timber establish the market value of the timber, and those market values can then be used to determine the stumpage price for the timber harvested from new auction sales or long-term tenures. MPS is a “transaction evidence pricing” system. The evidence from transactions (i.e. the results of the historical auction sales) is used to determine the price of other stands of timber.

Revenue Branch maintains two separate databases (coast and interior) of auctions sale information such as each sale’s winning bid and site specific data (e.g., slope, species, volume, etc.). Using statistical analysis, the database of winning bids are correlated with the stand’s timber characteristics and market information to develop equations that predict the estimated winning bid (i.e. estimated market value of a stand of timber). Over time, as new and more auction sales take place, the MPS equations are updated to incorporate information from these auction sales.

BCTS – British Columbia Timber Sales (Coast)

For timber sales issued under **section 20** of the *Forest Act*, the indicated upset stumpage rate (IUSR) is determined by the Timber Sales Manager. It is the greater of the variable cost, the prescribed minimum stumpage rate (PMSR), or 70% of the final estimated winning bid (FEWB).

Variable Cost – cost per cubic metre of preparing the timber for sale

Prescribed Minimum Stumpage Rate – currently set at \$0.25/m³ (i.e. *Forest Act* - Minimum Stumpage Rate Regulation).

70% of the Final Estimated Winning Bid - The FEWB is calculated from the coastal MPS equation and site specific data. The 30% discount is required to allow the competitive bidding process to find the true market value for the timber being auctioned.

Stumpage Rate = IUSR + Bonus Bid

Market Price = Stumpage Rate

The stumpage rate is fixed for the term of the cutting authority and all extensions.

BCTS – British Columbia Timber Sales (Interior)

For interior timber sales issued under **section 20 or 21** of the *Forest Act*, stumpage is priced in a similar manner as those on the coast. The Interior MPS Upset Stumpage Rate is one of the following:

Variable Cost – cost per cubic metre of preparing the timber for sale.

Prescribed Minimum Stumpage Rate – currently set at \$0.25/m³ (i.e. *Forest Act* - Minimum Stumpage Rate Regulation).

70% of the calculated market price (MP) - The MP is calculated from the interior MPS equation and site specific data. The 30% discount is required to allow the competitive bidding process to find the true market value for the timber being auctioned.

Total MPS Stumpage Rate = Interior MPS Upset Rate + Bonus Bid

The total MPS stumpage rate is fixed for the term of the cutting authority and all extensions.

Long Term Tenures (Coast)

Cutting authorities in the coast region that are not sold competitively do not receive the 30% discount to the final estimated winning bid (FEWB) like BCTS. Instead, the stumpage calculation includes a Tenure Obligation Adjustments (TOA). This accounts for costs not incurred by bidders on BCTS auctioned timber sales, such as forest planning and administration, road development, road management, road use charges, and silviculture.

IR = FEWB – TOA

Once the IR is determined, it is compared to the prescribed minimum currently at \$0.25 per cubic metre. The reserve stumpage rate is the greater of the two (reserve stumpage rate = IR or PMSR).

The total stumpage rate is the reserve stumpage rate plus any bonus bid or levies that may apply (total stumpage rate = reserve stumpage rate + bonus bid + levies).

Note: The coast MPS equation is re-determined regularly. To do this, the most recent BCTS auction sale information and market data is used. Also at this time, the TOA is updated to reflect current conditions.

Stumpage (adjustable) issued under long-term tenures is adjusted every three months to account for changing market conditions.

Long Term Tenures (Interior)

In the Interior, the Market Pricing System determines stumpage rates in two steps:

Step 1. The Interior Average Market Price (AMP) for the timber under long-term tenures is calculated. To do this, a market price (MP_i) is calculated for each mark in a database of non-BCTS cutting authorities (e.g. Forest Licence, Tree Farm Licence, Timber Sale Licence with an AAC >10,000). That is, each mark in the database has an estimated winning bid (EWBi) calculated using the Interior MPS equation (minus a Tenure Obligation Adjustment and any Specified Operations). A volume-weighted average of the MP_i for these marks (adjusted for low grade volumes) is the AMP.

EWB_i - from Interior MPS equation and site-specific data

$MP_i = EWB_i - TOA_i$

AMP = volume weighted average of all MP_i

The AMP is adjusted quarterly to reflect the current market price of timber.

Note: The interior MPS equation is redetermined every year (July 1). To do this, the most recent BCTS auction sale information and market data is used. Also at this time, the TOA is updated to reflect current conditions.

Step 2: Once the AMP is calculated, a stumpage rate can be determined for each new or existing (adjustable) cutting authority. This rate is either higher or lower than the AMP depending if the timber in the cutting authority is more or less valuable than the average.

The stumpage rate is determined as follows:

$$\text{ISR} = \text{IBR} + (\text{VI} - \text{IMVI})$$

Where:

ISR = Indicated Stumpage Rate.

IBR = Interior Base Rate. Some cutting authorities are charged the prescribed minimum rate (\$0.25 per cubic metre) even though the indicated rate is less. The AMP is adjusted to offset this, as well as to offset the low quality logs priced at 0.25 per cubic metre. The adjusted AMP is called the base rate.

VI = Value Index is the relative value of the timber in each cutting authority. It depends upon estimates of both the selling price (SP) of products (lumber and chips) that could be generated from the timber, and the total cost of producing them (OC).

IMVI = Interior Mean Value Index is the volume weighted average of the value indexes for all cutting authorities on which harvesting has taken place during the recent 12 month period. It is the benchmark against which individual stands of timber are compared.

SP = Selling Price is the estimated prorated selling price for the merchantable species and grades appraised on the cutting authority.

OC = Operating Cost is the estimated prorated operating cost applicable to the timber being appraised.

PMSR = Prescribed Minimum Stumpage Rate (i.e. *Forest Act* - Minimum Stumpage Rate Regulation).

The AMP, IBR, IMVI parameters are adjusted quarterly to reflect the current market price of timber.

Once the ISR is determined, it is compared to the prescribed minimum currently at \$0.25 per cubic metre. The reserve stumpage rate is the greater of the two (reserve stumpage = ISR or PMSR).

The total stumpage rate is the reserve stumpage rate plus any bonus bid or levies that may apply (total stumpage rate = reserve stumpage rate + bonus bid + levies).

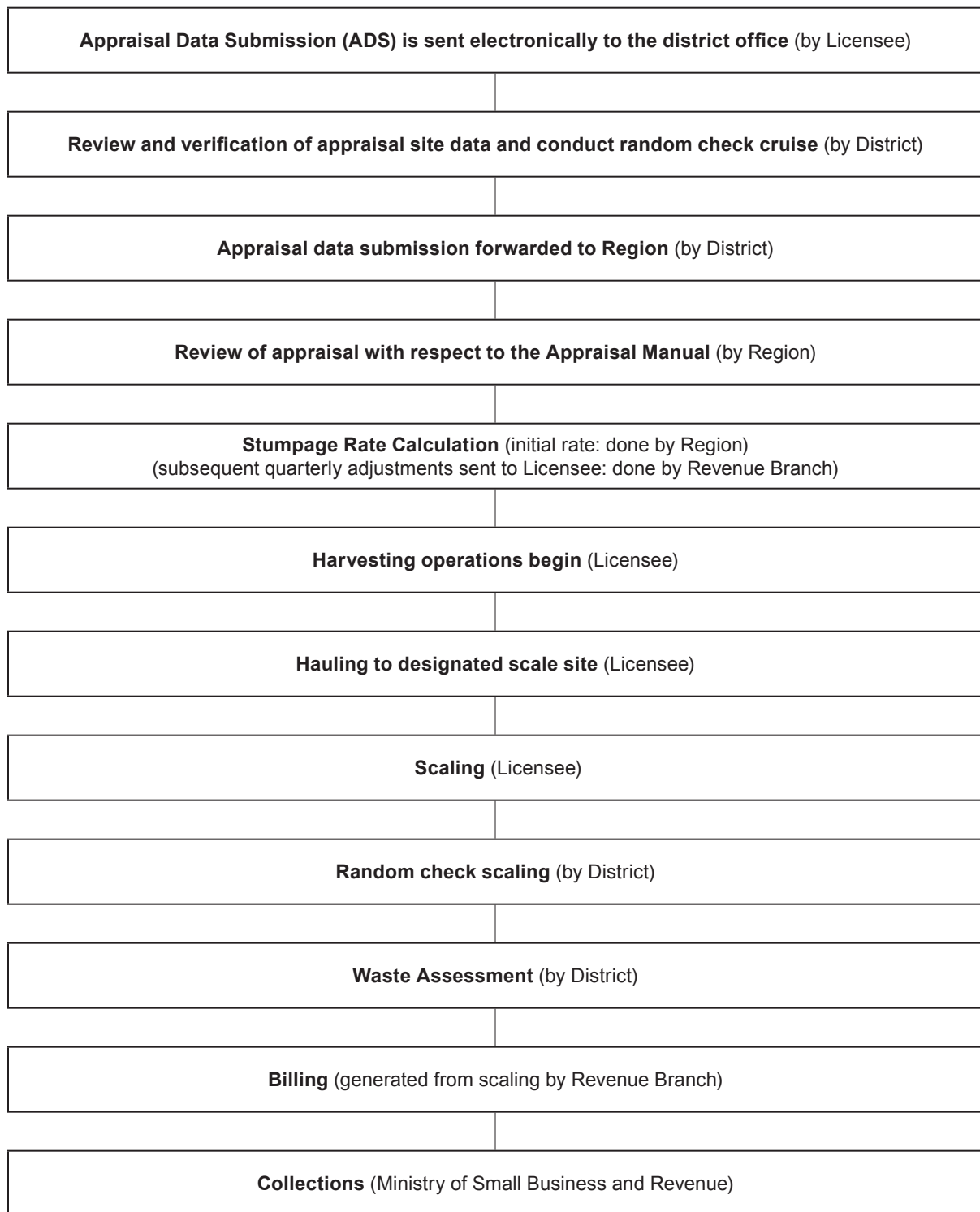
5.1.1.2 Miscellaneous Timber Pricing

The Coast and Interior appraisal manuals also provide "fixed rates" for specific pricing situations. These rates are generally weighted averages derived from historic pricing information. Some examples include:

- Various species (e.g. most deciduous species and western yew);
- Special forest products (e.g. shake blocks, fence posts, chops, hogged fuels and Christmas trees);
- Low grade logs (e.g. pulp logs) are priced using a schedule of fixed stumpage rates; and
- Specific tenures and salvage situations (e.g. mountain pine beetle salvage, small scale tenures, road right-of-way timber, damaged timber, mining or oil and gas exploration, Woodlots and Community Forest Agreements) have sawlog timber priced using a schedule of fixed rates.

5.1.1.3 Sequence of Events in Timber Pricing

The following is a generalized sequence of events for the appraisal, stumpage rate calculation, and revenue collection for a major licensee cutting permit:



5.1.1.4 Accuracy of Appraisal Information

On November 4, 2003, the government took steps to ensure that the information contained in appraisal data submissions used to calculate stumpage rates is accurate. Changes to the *Forest Act* include:

1. **Section 105.1** requires submission of accurate information. Otherwise section 163(1) specifies that it is an offence to not comply and authorizes fines up to \$500,000 and/or two (2) years imprisonment.
2. **Section 105.2** provides for the correction and re-billing where inaccurate information had been used to calculate stumpage rates.

5.1.1.5 Cruising, Scaling and Waste

Section 93 of the *Forest Act* provides the interpretation of the term “to Scale” as to mean: To determine the volume or quantity of timber, and to classify the quality of that timber.

Timber under the Scaling Regulation is defined as trees, whether standing fallen, living, dead, limbed, bucked or peeled and includes Special Forest Products.

Section 103.1 of the *Forest Act* provides authority to charge for timber not cut and removed as required (waste) within the description of each form of tenure. Waste assessments are conducted in accordance with the Provincial Logging Residue and Waste Measurement Procedures Manual.

Section 106 of the *Forest Act* provides the authority to calculate stumpage payable on Crown timber using the information provided by a cruise of the timber, instead of the volume reported in a scale.

For more information, the Ministry Scaling Manual provides a detailed overview of scaling history and current policy. The Cruising and Waste manuals also provide brief descriptions.

5.1.2 Looking Ahead

The Government of British Columbia announced a bioenergy initiative in February 2008. British Columbia is moving to meet ambitious targets that would make the province energy self-sufficient by 2016 while taking responsibility for our natural environment and climate. As a part of this long-term strategy, the BC Energy Plan seeks to ensure clean or renewable electricity generation continues to account for at least 90 percent of total generation. Clean or renewable sources of energy include wood residue energy and mountain pine beetle affected timber converted to bioenergy. Waste and residue issues are expected to be increasingly in the public lens as new power generation comes on line using clean or renewable energy sources. The Ministry of Forests and Range is working closely with BC Hydro to secure energy generated from woody biomass resources.

Competition for waste arising from harvest operations and milling is expected to increase in future years. Similarly, low quality stands of timber, roadside waste and residue may be suitable for bioenergy applications. Stumpage may apply to these bioenergy sources. In general, if the wood meets merchantability specifications, stumpage is payable based on the quality and volume of the timber. If the material does not meet the merchantability specifications, stumpage is not charged.

BC Timber Sales (BCTS) is currently testing ways to improve efficiency and utilization, and minimize the waste of timber through a new Innovative Timber Sale Licence (ITSL). This new form of a TSL relies on the combination cruise-based billing and a “lump sum” bonus offer instead of the more common scale-based/bonus bid format. Through these new licences, BCTS is marketing mountain pine beetle-attacked, pulp and other timber throughout the province. Cruise Based billing may account for as much as 80% of the Interior MPB timber by the end of 2009.

5.1.3 References

Information Papers

- Scaling Requirements for Checked Logs (December 1, 2007)
- Presentation of Requirements and Convention for Checked Logs (December 1, 2007)
- Coast Market Pricing System Update (January 15, 2009)
- Coast Market Pricing System Tenure Obligation (January 15, 2009)
- Specifications: Interior Market Pricing System-Update 2008 (July 14, 2008)
- Specifications: Calculation of the Interior Average Market Price (October 1, 2008)

Manuals

- Coast Appraisal Manual
- Interior Appraisal Manual
- Cruising, Cruise Compilation and Scaling Manuals
- Provincial Logging Residue & Waste Measurement Procedures Manual

For more information on stumpage (including the above information papers and manuals), please refer to the Revenue Branch’s web site at www.for.gov.bc.ca/hva

For information on Professional Practice in Appraisals and Cruising (PPAC), please refer to the ABCFP website and the link to PPAC Task Force.

5.1.4 Apply the Knowledge

1. Section 105.1 of the *Forest Act* requires that information contained in an appraisal data submission is accurate. At what point in the appraisal data submission process should the data be measured for accuracy? Is appraisal data considered inaccurate if it changes due to changes in plans, or site conditions?
2. A submission of inaccurate appraisal information may be considered a contravention under Section 105.1 of the *Forest Act*. As a professional submitter, what line of defense may be considered?
3. What are the risks to provincial revenue with a market based stumpage system?
4. What level of professional reliance is appropriate in the submission and review of appraisal data?
5. Should the movement towards professional reliance principles in forest practices also be adopted in the appraisal review process?
6. Should timber cruiser and waste surveyors be certified by the ABCFP?

5.2 Range Revenue

5.2.1 Legislation

Section 79 (2)(b) of the *Range Act* provides powers to the Lieutenant Governor in Council to make regulations to prescribe rents, fees and costs payable in respect of applications, licences and permits.

The Range Regulation **Sections 12 to 16** provide for application and issuance fees, fees for processing a change in ownership or control, annual fees for use of forage and annual rent.

5.2.2 References

- *Range Act*: www.for.gov.bc.ca/tasb/legsregs/range/rangeact/range.htm
- Range Regulation: www.for.gov.bc.ca/tasb/legsregs/range/rangeregs/ranger.htm

5.3 Recreation Revenue

5.3.1 Legislation

The Forest Recreation Regulation sets out procedures for establishing recreation orders to restrict or regulate public recreation use on Crown land to protect recreation resources, or to manage conflicting recreation uses. It also outlines the procedures an applicant must follow for submitting a proposal to construct, rehabilitate or maintain an authorized trail or recreation facility for public use. The regulation also details rules for the use of recreation sites, recreation trails and interpretive forest sites, describes provisions for recreation site and trail fees, and specifies enforcement actions for non-compliance with the recreation components of FRPA. The Minister of Tourism, Culture and the Arts is responsible for the Forest Recreation Regulation.

Part 5 of the regulation sets out the rules and procedures regarding fees for the use of recreation sites and trails. It covers **sections 21 and 22**.

Section 21 states that fees for overnight camping at recreation sites authorize camping for 24 hours beginning at 12 noon on the day in which camping begins.

Section 22 specifies several provisions regarding fees for the use of recreation sites and trails:

- In relation to a recreation site or trail, the term “service” means:
 - Maintenance and repair of the site or trail;
 - Supervision at the site or trail;
 - Provision of overnight camping facilities, parking, boat launch ramps, mooring buoys, warming huts or cabins at the site or trail;
 - Grooming or setting ski tracks on a trail; or
 - Provision of similar improvements for recreation purposes.
- The Minister may set a fee to use a recreation site or trail if the fee is justified by the provision of services. This authority has been delegated to the Regional Manager, Sites and Trails Branch, Ministry of Tourism, Culture and the Arts.
- The Minister must use the following formula to determine the fee at a recreation site or trail:

$$\text{AMOUNT} = AC/N$$

Where:

AC = the annual cost of providing the service (estimated by the Minister), and

N = the number of times the service will be used by the public (estimated by the Minister).

- The Minister may cancel a fee determination if the service provided at the recreation site or trail does not justify the fee.
- The Regional Manager of the Sites and Trails Branch must make available at district and regional offices a list of sites and trails within the region that have fees, including a description of services provided and the amount of the fees. The Regional Manager must keep the list current, and post a sign at each site and trail notifying the public of the amount of the fee.
- The Minister may authorize a person to act as a recreation site or trail operator, and may rescind the authorization.

- If requested, an operator must provide written proof of the Minister's authorization to collect a fee at a site or trail.
- The user of a recreation site or trail must:
 - Pay a fee to the recreation site or trail operator to use the site or trail if a fee has been determined by the Minister;
 - Provide his or her name, address and any other information reasonably required by the site or trail operator to identify the person or party;
 - Produce proof of payment on request of an official, a recreation officer, or site or trail operator;
 - Display proof of payment for camping at a campsite in the windshield of the camping party's motor vehicle, other than a motorcycle; and
 - The right to use a recreation site or trail arising from paying a fee is not transferable, and is only valid for the period of time indicated on the proof of payment.

5.3.2 References

- Forest Recreation Regulation: www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forrec/frr.htm

