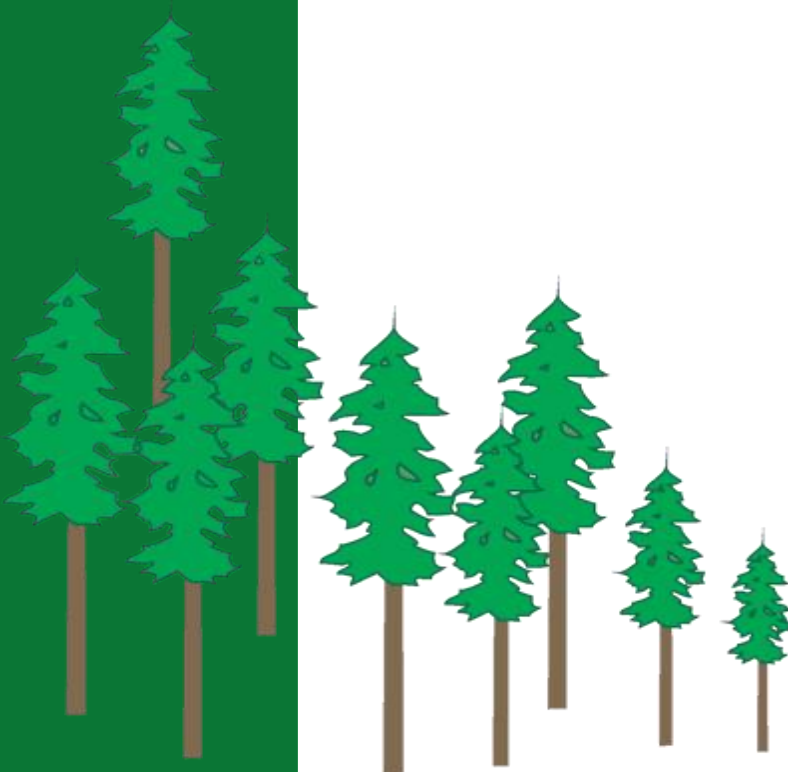




# **Interior Timber Pricing Training**

**Modules 1 – 5**



**July 2016**

**Timber Pricing Branch**

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**Disclaimer:** This document is intended for use during appraisal training activities and as a general guide to appraisals. It is not intended as a basis for legal interpretation of the *Interior Appraisal Manual (IAM)*. If there is any discrepancy between these materials and the *IAM*, the copy of the *IAM* posted on Timber Pricing Branch’s website is the official version. If there are any questions about a specific appraisal issue please contact timber pricing staff at the regional office.

# **Module 1**

## **Introduction to Timber Pricing**

## Introduction to Training Modules in Timber Pricing

This package has been designed to provide base level training to Ministry of Forests, Lands and Natural Resource Operations (FLNRO), industry and consulting staff on timber pricing in BC's interior. Each module covers different aspects of timber pricing and includes reference material. The user will be directed to the relevant electronic site locations via imbedded links for detailed information retrieval rather than repeat the information in the text.

**Module 1 Introduction to Timber Pricing** - Provides a general introduction to timber pricing in BC's Interior areas.

**Module 2 Professional Practice** - Provides information on professional practice obligations for timber appraisal functions.

**Module 3 Appraisal Submission Topics** - Provides detailed information on the submission of specific appraisal topics.

**Module 4 ECAS Overview** - Provides general information on the appraisal submission and review processes via Electronic Commerce Appraisal System (ECAS) for the FLNRO and Non-FLNRO staff that are, or will be, involved in the submission or review of appraisals.

**Module 5 Miscellaneous Timber Pricing Policies** - Provides an overview of the miscellaneous timber pricing policies included in Chapter 6 of the *Interior Appraisal Manual (IAM)*.

Although this package is intended to provide training to new and experienced staff, it cannot fulfill the training expectations completely. Mentoring from experienced timber pricing submitters or reviewers is highly recommended. Regular communications between industry, consultants, district, region, and branch staff are necessary and encouraged.

Any questions on the information provided should be directed to regional or branch timber pricing staff. Feedback and suggestions on the content of the modules are invited by email to [Forests.RevenueBranchOffice@gov.bc.ca](mailto:Forests.RevenueBranchOffice@gov.bc.ca).

# **The Interior Appraisal Manual (*IAM*)**

The primary purpose of the *IAM* is to provide the procedures that must be used by the person who determines the stumpage rate.

## **Chapter 1 – Introduction**

This chapter defines some terms used in the *IAM*, sets out the terms of reference of the manual, identifies who can determine stumpage rates, and itemizes appraisal data submission requirements.

## **Chapter 2 – Appraisals, Reappraisals and Stumpage Adjustments**

This chapter outlines the procedures for appraisals and reappraisals. It identifies triggers for reappraisals including changed circumstance, minister's direction, and insect damage. Stumpage adjustments and redeterminations due to correctable errors and by mutual agreement are also discussed in this chapter.

## **Chapter 3 - Final Estimated Winning Bid**

This chapter provides the estimated winning bid equation used in the Market Pricing System (MPS), and describes the individual variables, and indicates the procedure for determining the final estimated winning bid. It also describes the specified operations that may be applicable in an appraisal.

## **Chapter 4 – Tenure Obligation Adjustment**

This chapter identifies the types of Tenure Obligation Adjustment (TOA) cost estimates that may be used in an appraisal.

## **Chapter 5 – Stumpage Rate Determination**

This chapter explains how the stumpage rate is determined for British Columbia Timber Sales (BCTS) and non-BCTS cutting authorities.

## **Chapter 6 – Miscellaneous Policies**

This chapter specifies the tabular method for determining stumpage rates for various smaller tenures and specific situations including community forest agreements, woodlot licenses, road and blanket salvage permits, salvage, certain types of licenses to cut, controlled recreation areas, cruise-based cutting authorities, partially harvested timber and miscellaneous timber products.

## **Appendices**

The appendices include information on equipment and labour rates, development cost allocation, soil moisture codes, Appraisal Data Submission (ADS) map content, geophysical clearance line categories, appraisal log dumps, and a sample of the form used for amortization agreements.

## Purpose of an Appraisal

For non-BCTS licensees the purpose of an appraisal is to determine a stumpage rate for the cutting authority.

The MPS uses site specific information including cruise information to determine an Estimated Winning Bid (EWB). That bid is adjusted for tenure obligations and specified operations that are not included as part of the EWB, in order to eventually determine the indicated rate.

Appraisals are not designed to achieve total cost recognition for licensees nor are they designed to be a vehicle for compensating licensees.

For competitive timber sales under BCTS cutting authority areas, the purpose of the appraisal is twofold:

First, Timber Sale License (TSL) specific site information is used to determine a EWB. That bid is usually discounted by 30 percent and can be used as the upset for the timber auction, or there are options such as Variable Cost Upset (VCU) to set the upset at a different rate.

A bonus bid in  $\$/\text{m}^3$  or a bonus offer in total dollars (\$) is invited above the upset in the auction. The winning bonus is added to the upset to determine the total stumpage rate for the timber sale.

Secondly, the appraisal information along with the winning bid data is added to a rolling 5-year auction data base used in the periodic update of the estimated winning bid equation in the *IAM*.



## Appraised vs. Tabular Stumpage Rates

Generally there are two ways (outside of an order-in-council or a direction from the minister) to determine a stumpage rate:

- Appraised or fully appraised means that site specific information for the cutting authority area is used with the procedures required by the *IAM*. Licensees and BCTS submit appraisals electronically through the ministry's ECAS.
- Tabular refers to an alternate method provided in the *IAM* for specific situations or timber products where the stumpage rate is determined from a table of average rates instead of using site specific information. Licensees can request these rates by submitting the ministry's Interior Stumpage Rate Request Form ("short form"). Refer to Module 5 for additional information.

## Ministry Roles and Responsibilities

Submitters are professionally accountable for the quality and accuracy of their appraisal data submission (ADS). They have a professional responsibility to their client or employer to submit appraisals which follow the policies and procedures outlined in the applicable appraisal manual.

Methods to ensure quality appraisal submissions include self-assessing competency in submitting and reviewing appraisals, maintaining competency in the appraisal field of practice by staying current with legislation and regulations, participating at the Regional Appraisal Advisory Committee (RAAC) and Interior Appraisal Advisory Committee (IAAC) meetings and using peers to review their work prior to submitting an appraisal.

Forest professionals reviewing appraisals or making stumpage rate determinations carry out a professional quality review/determination by ensuring a fair and consistent process is followed. The general roles of district, region, and branch timber pricing staff in the appraisal process are as follows:

### **District:**

- Review appraisal data elements.
- Ensure the ADS is complete.
- Forward appraisals to region and identify issues not resolved.
- Assist district Compliance & Enforcement staff with monitoring harvest activities relative to the ADS.
- Participate at the RAAC Meetings.
- Stay current with changes to legislation and regulations affecting timber pricing.

### **Region:**

- Review the ADS with respect to the *IAM*.
- Adjudicate appraisal issues with licensees/districts.
- Determine the stumpage rate.
- Review ECAS documentation of appropriate rationales.
- Make recommendations to Timber Pricing Branch on appraisal issues and policy development.
- Stay current with changes to legislation and regulations affecting timber pricing.
- Chair and organize RAAC meetings.
- Provide training to ministry and licensee staff.

### **Branch:**

- Advise/make recommendations to the minister on forest revenue issues, policy development and changes to the *IAM*.
- Maintain the *IAM* and related components (systems, surveys, updates, amendments).

- Chair IAAC, participate in the Operating Cost Subcommittee (OCS) and Co-Chair the Interior MPS Technical Committee meetings.
- Provides background or clarification of the intent of sections in the *IAM* for ministry appraisal staff or other stakeholders.
- Help provide interpretations of the text in the *IAM*.

## History of Timber Pricing in BC

The dispersal of the rights to harvest timber in BC's interior began in the mid-1800s. In 1858, Crown land, along with the use of its trees, was made available at 10 shillings an acre. In 1865, unoccupied Crown land was available for lease and subject to a rent payment. From 1870 to 1887, lease rent fee amounts were at the discretion of the Lieutenant Governor in Council. In 1888, fees were set at \$0.50/Mfbm for all leases.

In 1912, the *Forest Act* was proclaimed by the Lieutenant Governor in Council and the BC Forest Service was created. The term "stumpage" was adopted in 1914 by the *Timber Royalty Act*. Stumpage is the fee that individuals and firms must pay when they harvest Crown timber in British Columbia. In 1949, Forest Management Licences allowed licensees to pay appraised stumpage calculated using the Rothery System. Prior to this date, stumpage was in the form of royalties first set out in the *Forest Act* in 1924 and was varied by species, log grades and location. In 1958, appraised stumpage became mandatory on all Tree Farm Licences.

In 1980, the *Forest Act* was amended to require that appraisals and stumpage rates be determined according to the policies and procedures approved by the minister. The Comparative Value Pricing (CVP) system was instituted in 1987. The CVP system compared a stand's value (selling price value of lumber & chips less operating costs) to the average stand value. The result of that comparison was then added to a base rate to get the stumpage rate. The base rate was the result of an iterative process of comparing individual stumpage rates for all active permits to a target rate. This comparison formed the basis of the "waterbed" which simply meant if there was a downward change in the stumpage rate for some permits the sum of that change was spread over the rest of the permits upwards to achieve the target rate (not revenue). The base rate would be re-calculated quarterly. The target rate was adjusted semi-periodically to reflect the change in the value of softwood lumber and chips based on information from Statistics Canada.

In 1999, the Market Pricing System (MPS) was introduced for British Columbia Timber Sales (and for all appraisals in the Coast Forest Region in 2004). On July 1, 2006, MPS 'b' was brought into force for all non-BCTS appraisal submissions in the interior. This system was introduced partly in response to US Softwood Lumber Agreement concerns. MPS 'b' was similar to the previous CVP system; except that the Target Rate was replaced by the Average Market Price (AMP) which was based on BCTS competitively auctioned timber.

In 2010, the current MPS system was introduced in the interior. It is based on the concept of determining an estimated winning bid using the MPS equation and site specific information for a cutting authority. That bid is adjusted for the tenure obligations that a major licensee would incur that a BCTS market logger would not.

## Legislative Overview

### Ministry of Forests and Range Act

Section 4 states: “The purpose and functions of the ministry are, under the direction of the Minister, to... (e) assert the financial interests of the government in its forest and range resources in a systematic and equitable manner.”

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/00\\_96300\\_01](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96300_01)

### Forest Act

Section 105 (1) provides the legislative authority for the Coast and Interior Appraisal Manuals (CAM and IAM) and stipulates who is authorized to determine stumpage rates. Furthermore, they are the “policies and procedures approved by the minister” that is referenced in this section. As such the appraisal manuals are subordinate legislation, in the nature of a regulation, and therefore have the force of law. Any changes to them have to be approved by the Minister of FLNRO.

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/96157\\_00](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96157_00)

Sections 105 (5.1) states that these policies and procedures “...may require the holder of an agreement to submit information to the government as necessary or desirable for the determination, redetermination or variation of a stumpage rate.”

Section 105 (5.2) states the holder of an agreement required to submit information referred to in subsection (5.1) “...must comply with the requirement.”

Section 105 (6) states: “A stumpage rate must not be lower than the prescribed minimum”. The minimum stumpage rate is prescribed by the *Minimum Stumpage Rate Regulation* (BC Reg 354/87) and is currently set at \$0.25/m<sup>3</sup>.

Section 105 (7) states: “If the Lieutenant Governor in Council considers it to be in the public interest, he or she may order that stumpage rates applicable to all timber or a class of timber in an area of British Columbia or cut under an agreement are to be lower than the rates determined under subsection (1), for a period not exceeding one year subject to subsection (6).”

Section 105.1 (3) states that the holder of an agreement who is required under the agreement to submit information to the government for use in determining, redetermining or varying a stumpage rate, or “...must ensure that, at the time the information is submitted, the information is complete and accurate.”

Section 105.2 (2) provides for the redetermination of a stumpage rate, if the minister is of the opinion that the stumpage rate is based on incomplete or inaccurate information and/or the information did not meet the requirements of the policy and procedures.

Section 105.2 (3) provides for the redetermination of a stumpage rate, if the minister is of the opinion that after the stumpage rate was determined, redetermined or varied, the minister became aware of information that did not exist or, existed but was not taken into account when the stumpage rate was determined, redetermined or varied, and the information is likely to result in a change in the stumpage rate.

Section 106 provides the authority to use information in the cruise instead of the volume reported in a scale, to calculate the amount of stumpage payable to the Crown.

Section 136 includes several requirements such as keeping accurate records and reporting certain information at the times and in the manner specified by the Minister (for example, the Interior Log Cost Report). It also imposes a confidentiality requirement on those that receive the data.

Section 146 provides the ability to appeal a stumpage rate determination to the Forest Appeals Commission.

Section 163 authorizes fines up to \$500,000 and/or up to two years imprisonment, upon conviction for contraventions of several sections of the Act, including 105.1 and 136.

## **Forester's Act**

The *Forester's Act* defines the practice of professional forestry which includes engaging in and reporting on appraisals and valuation of forests and forest lands. The *Forester's Act* assigns the practice of professional forestry to Registered Professional Foresters (RPFs) and Registered Forest Technologists (RFTs). The Association of British Columbia Forest Professionals (ABCFP), Bylaw 10, established under the *Forester's Act* requires the signature and seal of all professional documents. Sections of Bylaw 11 (Code of Ethics) and Bylaw 12 (Standards of Professional Practice) apply to appraisal data submission and review as well. See Module 2 for a more detailed explanation.

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/00\\_03019\\_01](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_03019_01)

## **Related Policy Advice and Communication**

Timber Pricing Branch maintains appraisal advisory committees for both the Coast and Interior areas to solicit advice on appraisal policy issues.

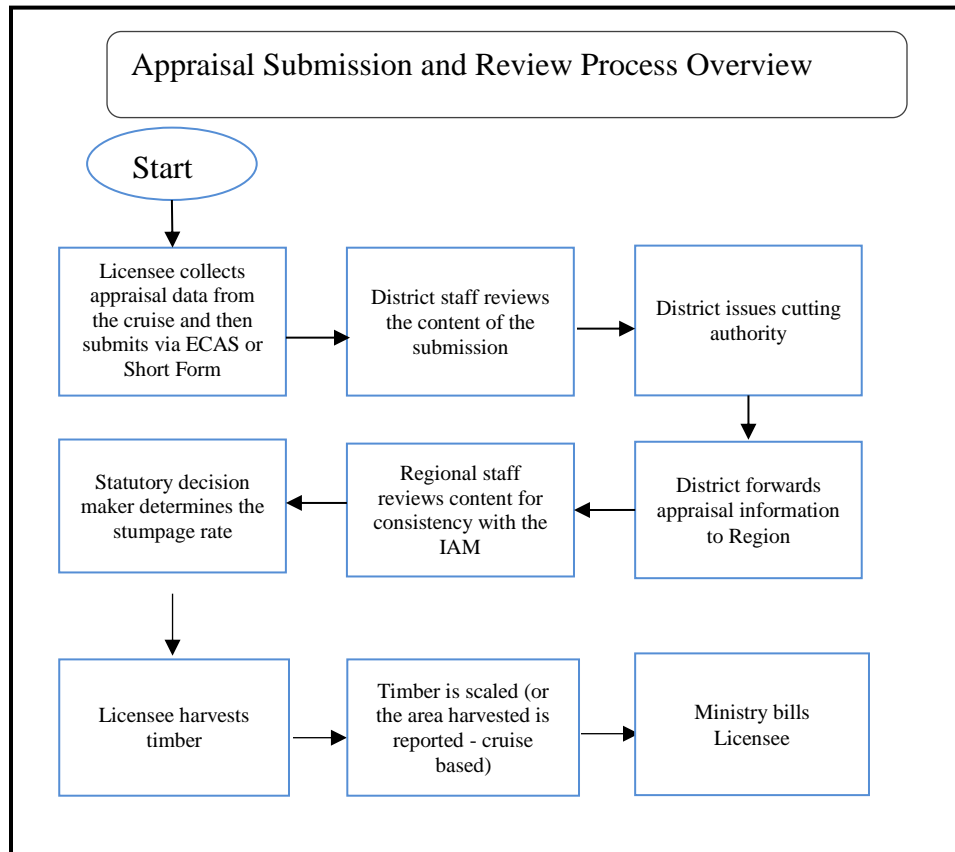
The Interior Appraisal Advisory Committee (IAAC) membership includes representation from a wide cross section of stakeholders including industry and government. IAAC establishes subcommittees, either standing or ad hoc, to provide recommendations on specific technical issues and appraisal policies. One such subcommittee is the OCS of IAAC which provides technical advice to IAAC regarding the operating cost estimates used in appraisals.

The MPS Technical Committee is a provincial level group responsible for ensuring MPS is current and functional. Membership includes timber pricing staff and industry representatives.

The north and south areas also maintain appraisal advisory committees to facilitate discussion and make recommendations on appraisal issues. The two Regional Appraisal Advisory Committee (RAAC) memberships include representation from industry and government. These meetings are also used to discuss regional procedures and collaboratively seek solutions to regional appraisal issues. Where appropriate, recommendations are made to other forums such as IAAC.

## Appraisal Submission and Review

This flowchart illustrates the pathway of an appraisal from the licensee submission, to a stumpage rate determination, to final billing.





## Timber Pricing Topics/Principles

This section is intended as a general overview of some timber pricing principles.

### Softwood Lumber Agreement

The Softwood Lumber Agreement (SLA) is a joint Federal level trade agreement between the United States (US) and Canada that originated out of the North American Free Trade Agreement. There have been several SLAs and Memorandums of Understanding since the 1980s. They have been enacted to try to resolve long-standing disagreements between the US and Canada on the differences in each country's timber allocation and pricing policies to maintain free trade of lumber and logs between the two countries.

### Market Pricing System

As of July 1, 2006, stumpage rates for timber harvested under long term tenures in the interior are determined using the Market Pricing System (MPS).

The central concept underlying the MPS is that BCTS 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 under long term tenures.

Technically, MPS is a “transaction evidence pricing” system. The evidence from transactions (i.e. the results of the auction sales) is used to determine the price of other stands of timber.

Pricing systems like the MPS are common. The US Forest Service and many US states use similar approaches to appraise standing timber. In the market for crude oil, the benchmark price for West Texas intermediate crude oil is established on the New York Mercantile Exchange, and this price is adjusted to value oil with different characteristics such as sulphur content or viscosity. Also, each day in the stock market some shares in each firm are bought and sold and the results of those transactions are used to establish the value of all the remaining shares that were not traded.

### Estimated Winning Bid (EWB)

The estimated winning bid (see the MPS equation in Section 3.4 of the *IAM*) is calculated using the data from the appraisal data submission. This equation, based on previous auction sales, estimates the market value or expected bid price of the timber, if the timber were sold at auction.

### Specified Operations (SO)

If sufficient auction data is not available for an activity employed by either BCTS or other licenses, the ministry may, for those identified situations, implement a specified operations cost estimate for use in the calculation of a stumpage rate.

The specified operations will be used to adjust the MPS stumpage rate for the estimated incremental cost of the identified situation. The explicit assumption is that if a bidder was faced

with a similar situation he or she would lower the bid by the extra cost incurred because of the identified situation.

The ultimate objective is to have a representative auction database and hence, few, if any, specified operations adjustments.

### Final Estimated Winning Bid (FEWB)

The FEWB equation in Section 3.7 of the *IAM* is the difference between the estimated winning bid and the total of the specified operations applicable to the appraisal, with an adjustment due to the consumer price index:

$$\text{FEWB} = \text{EWB} - \text{SO} * (\text{CPI} / 138.8)$$

### Tenure Obligation Adjustment (TOA)

In MPS, it is important that the costs incurred by long-term tenure holders fulfilling tenure obligations are recognized. These obligations include the costs of road development projects, road maintenance, silviculture, and forest management administration.

BC Timber Sales licensees do not have similar obligations because the Province, through BCTS, manages those forests and incurs those costs. Therefore an adjustment to stumpage must be made for the differences.

### MPS Indicated Stumpage Rate

The MPS indicated rate (IR) or BCTS Indicated Upset (IU) is:

$$\text{IR (IU)} = (\text{FEWB} - \text{SO}) - \text{FTOA}$$

FTOA is the Final Tenure Obligation Adjustment

## **Cost Base**

Licensees submit their experienced costs and lumber recovery factors through the annual Interior Logging Cost Report (ILCR). “Cost Base” refers to the combining of generally two years of ILCR data which is used to determine the cost estimates in the *IAM*. Usually there is a 2-year lag time between the cost base of the cost estimates in the *IAM* and the year of the effective date of the *IAM*. The ILCR data is integrated into such items as the tenure obligation adjustments and tabular road costs.

## **Appraisal “Parameters”**

At the request of Timber Pricing Branch, licensees submit monthly lumber and log market information. This information is used to publish monthly average market values (“parameters”) which are used in the calculation of stumpage in an appraisal.

The parameters are published on the Timber Pricing Branch's website at:

<http://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/timber-pricing/interior-timber-pricing/interior-appraisal-parameters>

## **Stumpage Adjustments**

Every three months (January 1, April 1, July 1, and October 1), the stumpage rate for each adjustable rate cutting authority is recalculated to account for changes in the selling prices of lumber. The latest monthly appraisal parameters published by Timber Pricing Branch are used in the rate adjustment.

## **Statutory Decision Maker Authority**

A statutory decision maker (SDM), who is a FLNRO government official has authority under section 105(1) of the *Forest Act* to determine stumpage rates. There are several obligations that an SDM must ensure are followed in their decision making and subsequent follow-up with parties affected by the decisions. This authority should not be taken lightly but should also not be considered as direction to maximize stumpage rates either. A balanced approach is necessary to ensure fairness and reason throughout the process.

## **Interpretation of Timber Pricing Policy**

Timber Pricing policy as delineated in the appraisal manuals is subordinate legislation and must be followed. However, the appraisal manuals do not cover all the various circumstances that could be found in an appraisal as this would be too unwieldy and could stifle innovation in forest harvesting practices. Therefore, the SDM needs to interpret the policy in a reasonable manner when reviewing appraisal data submissions in order to determine stumpage rates. This is a skill that needs to be learned from various sources such as supervisor direction, training, peers, Forest Appeal Commission decisions, regional timber pricing staff discussions, and previous determinations, etc.

Another source of Timber Pricing policy is direction from Timber Pricing Branch. This is not the same as legislated policy in the appraisal manuals but guidance from very experienced staff. Varying from the minister approved policy direction in the manuals should only be considered in very unusual circumstances and should be discussed with relevant Branch staff before proceeding.

## **Highest Stumpage**

In 2010 the interior pricing method shifted to MPS A and the "Least Cost" principle transformed into the "Highest Stumpage" principle. Least Cost meant the person who determined the stumpage rate had to use the least total costs (harvesting, development and transportation ) in an appraisal. Under MPS A it is no longer applicable to just look at the total cost, but to also include the lumber values and recovery factors (including the low grade adjustment in the tenure obligation adjustments for scale based cutting authority areas); hence "Highest Stumpage".

Essentially, the Highest Stumpage test compares the stumpage rates for viable combinations of activities used in an appraisal. The combination of activities producing the highest stumpage rate must be used by the person who determines the rate. That said, the district manager can deem a harvest method and/or transportation route as “unsuitable” and the person determining the stumpage rate must exclude the particular method or route(s) from the test.

Recently, Interior Pricing policy changed to include a two-part highest stumpage test. First the Point of Appraisal (POA) is chosen by calculating the lowest viable total development and transportation cost (TRDEV). Then, the highest stumpage test is applied to all viable total operating cost combinations using the lowest TRDEV POA. The reason for this two-step process is to remove the “influence” of the lumber values and recovery factors, as well as the low grade percent adjustment which is specific to each POA.

The professional submitting the appraisal must consider highest stumpage. This includes providing supporting information/rationales to assist the person in determining the stumpage rate in their review.

### **Changed Circumstances**

A changed circumstance reappraisal is required in certain situations. For example, when a change in development cost occurs from the original estimate made in an appraisal that is greater than the changed circumstance threshold specified in the *IAM*.

Be careful to note the original effective date when checking to see if a changed circumstance reappraisal is required. Use the same *IAM* in effect on the original effective date of the cutting authority. For example, if you are using an appraisal program (such as the IFS program) be sure to use the same year of program as the original effective date so that the correct change is calculated.

Generally, changed circumstance reappraisals must be submitted within 60 days of completion of log transportation activities or no later than 30 days prior to the expiry of the cutting permit, whichever comes first. When considering if a changed circumstance situation has occurred as per the *IAM*, two related concepts must be applied: Does the change meet the criteria in the *IAM* and does it meet the Highest Stumpage test?

There are various categories and respective thresholds that could trigger a changed circumstance reappraisal. See *IAM* Section 2.2.1 for more details.

As of July 1, 2014, there is the additional requirement for the licensee’s forest professional to submit a certification statement that changed circumstances have not occurred. See *IAM*, Section 2.2.1 (1) for more information.

## **Module 2**

# **Professional Practice**

## Introduction to Professional Principles in Timber Pricing

Module 2 is intended to assist forest professionals in their timber pricing practice under their legislated authority (*Foresters Act*) in British Columbia. The ABCFP is the regulating body which serves and protects the public interest in the management of forests, forest resources, and forest lands of BC.

The *Foresters Act* defines the practice of professional forestry, describes the registered member and others who are entitled to practice professional forestry and establishes the ABCFP. The *Foresters Act* also describes the purpose of the ABCFP and directs the association in delivering that mandate.

The authority for an ABCFP member to practice is given when certain conditions are met and can be revoked when the ABCFP member fails to follow the Professional Principles set out by the ABCFP in their bylaws; specifically the Code of Ethics, Standards of Professional Practice and other directions to members.

Valuation and appraisal of forest resources is one of the practices specifically identified by the definition of professional forestry in the *Foresters Act*. Timber pricing contains these practices plus several others that fit within the practice of professional forestry. This module will outline the member's practice obligations related to submission and review of appraisal data.

Professional principles are fundamental statements or positions that create a foundation for service and conduct of professionals who engage in the practice of the profession. The key principles are found in the *Foresters Act*, Section 4, Duty and objects of the association, competence, independence, professional conduct, integrity and principles of stewardship. These principles are the underpinnings of the Code of Ethics and the Standards of Professional Practice. The Code of Ethics describes the values and rules associated with making choices for forest professionals and the Standards of Professional Practice define the measures of performance in practice.<sup>1</sup>

Additional professional principles applicable to the practice area of timber pricing include:

- Professional Accountability
- Trust and Respectful Regard
- Instruments and Benchmarks
  - Information Delivery
  - Documentation
  - Professional Rationale
  - Monitoring and Peer Review
- Resolution and communication
- Best Practices for Submission of Appraisal Data

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<sup>1</sup> ABCFP Code of Ethics - Guidelines for Interpretation Mar 2009

## Professional Accountability

Professional Accountability is “...an acknowledgement and assumption of obligations under professional legislation and accompanying bylaws, including the potential for investigations and discipline to be imposed by the profession”.<sup>2</sup>

The ABCFP has a Code of Ethics, which is “...a set of defined principles and rules of conduct...” for members to follow. Professional accountability for timber pricing is important to ensure that there are incentives to maintain high standards for practice and consequences for not meeting standards.

Accountability means to answer for specific outcomes . The inherent value of accountability is that the person accountable is best positioned to answer because they are:

- knowledgeable;
- they assume responsibility for actions, products, decisions, policies;
- they understand their role, the encompassing obligations related to the issues; and
- they are above all trusted and respected.

However, accountability cannot exist without an agreed upon standard of practice and means of measuring outcomes. This measure protects the professional because they know what standard must be met and supports the professional by establishing a consistent process. An absence of practice standard and measurement is an absence of accountability.

There is a high degree of financial accountability for both government in collecting Crown revenue and for corporations in answering to shareholders. As a result, a reliance on professionals in the timber pricing process must demonstrate integrity and a fair and defensible method. Clear and functioning accountabilities for all parties are a key component of a successful framework. The accountability framework needs to have strong provisions to address poor quality reviews or submissions.

A strong confidence by those who rely on professional service will in turn support professionals and result in increased efficiencies and revenue for government and corporations. When the professionals who are involved in the process, openly comment that the process is flawed, or describe other professionals as ‘inadequate,’ then the primary parties who rely on the professionals will never have sufficient confidence. Critical perspectives and reviews are important. It is the way we engage these reviews that secures confidence. Confidence in the professionals can be derived from a number of factors. One significant factor is accountability.

Where money is concerned, government and corporations view the timber pricing process differently. Similarly, the professionals who are tasked with representing their employer’s interests are also likely to have differences of perspective and opinion. What makes the forest professional valuable to the government or corporation is the professionals ability to use their specialized

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<sup>2</sup> Applying Professional reliance Under FRPA. ABCFP Guidance. April 2008

knowledge to address practical problems and independently work on solutions (aside from the vested interest). This is a healthy use of professional service that will continue to realise benefits.

This does not mean that there are not disputes. The ABCFP developed a dispute resolution process for the 1998 professional accountability workshops that is still applicable today<sup>3</sup>. This process and other principles developed as the professional reliance initiative has unfolded will help to solve differences of opinion as well as poor quality reviews or submissions.

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<sup>3</sup> Application of Professional Discretion under the Forest Practices Code. ABCFP Guidance. September 1998.



## Trust and Respectful Regard

In the early development of professional reliance it was recognized that trust and respectful regard would be a requirement for successful forest industry culture change. The ABCFP has a paper that discusses this subject.<sup>4</sup>

**Trust** is an applied concept that arises out of the knowledge and experience of working with others.

**Respectful Regard** means that a professional's work product, opinions, and judgments are given weight and credibility.

As practitioners, we learn to work within the regulatory framework, we understand the operating environment described by policies and we experience the external pressures of day-to-day management. As a result of these inputs, we learn to expect certain behaviours from those people and systems working around us. Described another way, professional trust is expecting that other professionals we work with will not take advantage of us or exploit circumstances to our employers detriment.

Beyond the definitions, trust is the confidence that one has in the people and organizations that work and deliver professional service to the extent that one can rely on the performance of other professionals, their work product, opinions, and judgments.

When professional trust is low, we construct and prescribe formal systems and attempt to ensure that we receive a specific behaviour from professionals. There is a general threat of punishment if we don't achieve the prescribed formality. This is a loss of respectful regard and has the effect of reducing the benefits of professional reliance.

When professional trust is high, we rely more on those personal professional connections and develop understood ways of working together. Practice aptitudes that involve diligence, pursuit of competence and reasonableness are evident in behaviour. Respectful regard between professionals becomes second nature. This has the effect of increasing professional reliance and the corresponding benefits such as innovation and operational expedience.

This is not to say that trust and respectful regard in professional service is the main solution to all management and professional interactions. In fact many circumstances that contain significant public accountabilities require more formal frameworks. Timber pricing is one of the government functions that require fiscal and social accountability. Forest professionals operating in this framework, wherever they work, are required to either achieve or demonstrate the achievement of certain outcomes, even when the process is operating with a high level of trust.

The timber pricing professional can ensure professional service is delivered in a consistent manner by using a principled approach to their practice. The kinds of things to consider in your practice are:

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<sup>4</sup> Describing Professional Trust and Respectful Regard. ABCFP Paper. May 2013.

- a. Effective communication (one-to-one dialogue, written, non-personal professional information):
  - i. Look for available guidance, policy, general direction;
  - ii. Develop professional connections and communicate frequently; and
  - iii. Learn the definitions and specific culture.
- b. Comprehension of frameworks (function within the established frameworks):
  - i. Learn the definitions, function and specific culture of the framework.
- c. Best practices articulate the target standard. A best practice is one that is practical and achieved most of the time by yourself and others.
- d. Record keeping and record sharing is a demonstration of progress and expectation. A tool that helps mitigate problems as they arise, seeks solutions and generally avoids all out failure.

Properly applied, professional trust and respectful regard are essential underpinnings to relying on professional judgement in natural resources.

## Instruments and Benchmarks

The resource professional acquires a science based knowledge that they continue to build upon throughout their career. The professional then applies the knowledge to specific management, tasks and environments. Therefore, professional service is the application of knowledge for practical solutions or in transacting processes established by others. It is the latter element that is important to the timber pricing process and forest professionals.

In the delivery of service and work the forest professional must rely on various instruments and benchmarks associated with a process.

### Information Delivery

Often information is required for others to complete agreements and transactions. Forms, formats, the content, steps in processes, are features of a business that the forest professional is expected to follow and achieve. These features may, or may not, be the practice of professional forestry, however, they do fall within the requirements of the professional standards because they are referred to as professional conduct.

### Documentation

A professional keeps a record of their practice and other service related to their employ. The records are separate and distinct from payment forms or invoices. It is a record of professional work, content of communications, actions required, informal agreements, dates of work completion and transaction, etc. These documents are independent documents of the forest professional and are reliable sources of information for employers and others. Examples of the kinds of this information are a practice diary or a record of project communication. When an employer specifically requests these documents as part of the deliverables of a project then the document is owned by that employer.

Professional documents are enabled by the *Foresters Act* and referenced in the bylaws or guidance as documents containing professional work. Professional documents can also be documents enabled by other legislation, regulation, such as the Appraisal Data Sheet<sup>5</sup>, or written instructions by a professional for excavations on slopes.<sup>6</sup>

### Professional Rationale

As forest professionals we are obligated to be competent in our fields of practice. We support our decisions and actions in writing, to the degree of care that a prudent professional would exercise under the same or similar circumstances. A product of our competence is the professional decision and supporting rationale that demonstrates we are worthy of the public trust and professional reliance. The purpose of a rationale is to support a decision or action, avoid a misunderstanding,

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<sup>5</sup> Appraisal Manual section

<sup>6</sup> Occupational Health and Safety Regulation section

demonstrate due diligence and clearly explain the intent so the decision or prescription can be understood and implemented.

A rationale is a description of the underlying foundation for an action taken or decision made. It is an explanation of the controlling principles in the circumstance, the intellectual or sensible path chosen and the logic toward the expected outcome, opinion, or practice. Depending on the situation, decision or action, the rationale is often written, provides supporting documentation, identifies the accountability linkages, and reveals the diligence or zeal with which the professional undertook the work.<sup>7</sup>

## **Monitoring and Peer Review**

Peer Reviews are an element of the ABCFP continuing competency program. The main objective of the peer review program is to elevate a member's level of practice through the mentorship and confidential advice offered by a trusted colleague.

Peer reviews are also a critical review of a specific professional work. Professionals support their decisions and actions in writing, and undertake sufficient due diligence to ensure that their work meets the standard of care expected by the profession. In some professions, there are obligatory peer reviews that extend professional liability onto the reviewer.

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<sup>7</sup> Guidance for Professional Quality Rationales and Commitments. September 2008.

## Resolution and Communication

Beyond the timber pricing framework of definitions, flowcharts, parameters, estimations, data and other components is the action and interpretation of professional judgment. The application of forest science, measure and valuation of forests and forest resources is the practice of professional forestry. These aspects need to be undertaken by forest professionals, and they raise the standard of the timber pricing framework because they are transacted by forest professionals. Disagreement about differences of professional judgment or opinion does occur. An understanding of the timber pricing framework, the various components, the data, the guiding principles of greater reliance on professional judgment and accountability, and the integration of all of these, are required for professionals to effectively transact the business of timber pricing. When all of the forest professionals engaged in this practice area have this understanding then disagreements are less frequent and localized solutions are developed.

The professional reliance axiom states that the benefit of the doubt would go to the prescriber (submitter) as part of the Standards of Review. If disagreements of professional judgement still remain beyond this, they should follow the hierarchical procedure discussed below. Preferably, disagreements should be mutually resolved before initiating official complaints to appropriate regulatory associations. Note that steps 1 through 4 (below) describe one type of process and step 5 is a separate regulating body discipline process.

1. Whenever possible and appropriate, resolve the issue with a friendly phone call. Issue may possibly be defined as someone exceeding the acceptable margins of error in an appraisal submission or a difference in opinion around an interpretation or conclusion.
2. If not resolved in step 1, request clarification at a face-to-face meeting. Disagreements about differences of professional judgment or opinion are often better resolved in person rather than over the phone or by writing. Face-to-face meetings to achieve clarification are often more effective with field visits rather than office meetings.
3. If mutual resolution between the parties by phone or meeting is not achieved, the next step may be to refer the matter to respective supervisors.
4. If the matter is not resolved at step 3, independent, mutually acceptable third party or parties may be invited to provide advice and/or to mediate. The ABCPF may be approached to assist by referring parties to independent (arms-length) mediators or to refer the matter to mentors for confidential resolution and/or advice.
5. The final step, if all others fail or are inappropriate in the circumstances, would be to initiate a complaint to the appropriate regulatory association. Before pursuing this route, one must make sure that all the facts are clear and one has gone through the previous steps unless it were impossible or inappropriate in the circumstances to do so. For example, in some circumstances (consistent poor quality submissions or reviews, flagrant disregard of legislation or professional obligations, or serious matters of professional conduct) this step could be initiated without going through the previous steps.

The above is the more formal process, more recently, (July 2011) the ABCFP produced a Professional Accountability Processes guide that provides guidance and options for members as to how they might go about resolving professional disputes themselves<sup>8</sup>. In this paper ABCFP clearly states that if the concerned individual has not made a satisfactory effort to resolve the matter with the other member on a reasonable appropriate basis, the registrar may decline to accept the complaint or to initiate a formal Complaint Resolution Process (CRP). The ABCFP document describes several suggested non-discipline options to improve member competency that may be attempted before initiating CRP. The options described are primarily member driven with the ABCFP acting as a facilitator in options 4 and 5. The non-discipline options are voluntary and members are not required to participate in them.

Non-discipline options to improve member competency:

- Informal agreement between the members;
- Formal agreement between the members;
- The Voluntary Peer Review process;
- ABCFP assists the members in reaching a consensus (accountability process); or
- ABCFP coordinates a work review.

The discipline options are as described above and a result of the Complaints Resolution Procedures being initiated.

The question often arises as to when the ABCFP should be notified when a member has concerns with another member's professional work. Once you are satisfied that you have the relevant information and have discussed the matter with the other member you have to decide if the issue is resolved. If resolved notify the other member, if not resolved and you decide you must report then notify the other member of your intention to notify the ABCFP.

The ABCFP generally expects members to report directly where:

- There are safety concerns;
- There is the potential for environmental damage;
- There could be significant damage to other resource values (e.g. first nation's values, fisheries, private land or downstream resources);
- There are examples of continuous errors or a history of poor quality work;
- The subject member has previously been disciplined for similar actions;
- It is reasonable to believe that the alleged action was intentional and serious;

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<sup>8</sup> Professional Accountability Processes. ABCFP Guidance. July 2011.

- It is reasonable to believe that the subject member was motivated by personal gain or received a benefit from the alleged action;
- The alleged action is of a nature such that a failure to deal with the matter in a formal, transparent and public manner would tend to bring the profession and its discipline process into disrepute; or
- Any other circumstance where you as a member believe another member is not complying with the Bylaws or Code of Ethics.”

The ABCFP Bylaw 11 Code of Ethics contains positive obligations for forest professionals to act when witnessing specific actions. Two such instances are, “*11.3.4 Where a member believes a practice is detrimental to good forest stewardship of forest land,*” and “*11.4.3 Where a member believes another member may be guilty of infamous or unprofessional conduct, conduct unbecoming a member, negligence or a breach of the Foresters Act or bylaws.*”<sup>9</sup>

The Code of Ethics also provides the steps that a member would take in discharging this professional obligation to act:

1. Evaluate the circumstance and whether it meets the essentials of “detrimental to” or “conduct,” “negligence” or “breach.”
2. Raise the matter with that other member, if possible and appropriate.
3. Agree on a resolution to the problem.
4. If a resolution is not possible, appropriate or if there is no resolution then inform council in writing.

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<sup>9</sup> ABCFP Code of Ethics - Guidelines for Interpretation Mar 2009

## **Best Practices for Submission of Appraisal Data**

Organizations that value and support their forest appraisal staff in encouraging high quality submissions and reviews and promote the understanding of the need for and use of the forest appraisal submission and review process in their work duties were observed to have dedicated, expert staff that had low “Clarification” error rates in the Electronic Commerce Appraisal Submission (ECAS) and a highly efficient timber pricing submission and review process.

List of best practises of organizations that employ forest appraisal data submitters and reviewers:

### **Human Resources**

- Engage forest professionals who have competence in the practice area of timber pricing. (This can include skills such as a propensity for numbers, detail focus, understand conflict resolution process, and support professional reliance in forestry practises and value forest appraisal administrative duties).
- Retain professionals who have qualifications over long term (10+ years).
- Provide known career paths in their organizations for their forest professionals to follow.

### **Training**

- Organize regular in-house training exercises that support maintaining a high standard of work.
- Foster a culture of positive cooperation between forest appraisal data gatherers, submitters and reviewers both in-house and outside organization.
- Support professional involvement in committees and workshops in the forest appraisal field.

### **Mentoring**

Provide a mentor experienced in the forest appraisal process, for professionals wanting to acquire competence to support a job function.

### **In-house Expert**

Maintain a competent forest appraisal practitioner who is readily accessible to all forestry staff to provide answers to questions, quality control and advice.

### **Peer Reviews**

Conduct peer reviews of ADS practises internal to organization.

### **Experienced Forest Harvesting Staff**

Consult senior logging and engineering supervisory staff in the organization for guidance and understanding of forest harvesting practises.



## Procedures Used by Submitters

Submitters have procedures in place for guidance on submissions, e.g. engineering cost estimates, cruise data, compilations, checklists (see sample below).

The following is a sample ADS checklist for information purposes only. Each submitter should develop their own format for checking their ADS. Also, a checklist could be developed for use by Peer Reviewers in the submitter's organization.

\*\*\*SAMPLE ONLY\*\*\*

### Appraisal Data Submission Review Checklist

ECAS Screen	Yes	No	N/A	ECAS Screen	Yes	No	N/A
<b>Reference Info</b>				<b>Cruise Information/Tree to Truck</b>			
Timber Mark?				Cruise and Compilation Approved?			
Forest District?				Correct version of compilation approved?			
TSA/TSB?				Cruise Info on ADS matches Compilation?			
Point of Appraisal correct and Least Cost?				Net Merch Area matches compilation?			
Comparative Cruise?				NAR is $\geq$ NMA?			
Salvage Toggle?				Support Centre and Distance correct?			
Stand Rate Coniferous				TTT data matches compilation?			
Stand Rate Deciduous				Least cost harvest method used?			
<b>Appraisal Map</b>				<b>All fields double checked for any transposing errors from cruise compilation?</b>			
BEC zones indicated?				Conifer versus Deciduous variables correctly indicated?			
Partial cut areas indicated?				Sampling error $< 15.0\%$ or 1 plot/ha and at least 4 trees/plot average?			
Common junction and geographic block centres indicated?				Correct selling price zone indicated (ie. 7 Southern Interior)?			
Surfacing areas indicated same as TAB road section in ECAS?				Insect damage indicated?			
Gravel Pit areas identified?							
ECE sections identified?				Multiple BEC zones indicated in appraisal divided by area, (ha) not volume (m3)?			
TAB road sections numbered and same as TAB road ECAS sections?				Partial cut % calculation correct (ie. Factored compilations/full compilation)?			
Different harvest methods (ie. conventional)				Correct support centre distance			

Appraisal data for road to <50% side slope?				and price in \$/m3 indicated and signed off by both licensee and land owner?			
<b>Other Development</b>				Road management indicated?			
Other structures - are structures on appraisal map?				Cycle Time pro-rated by cable/non-cable (log handling delay)?			
<b>Allocated Development</b>				Total cycle time indicated?			
Cost Base Year of Original Cost, Original Cost, Trended Cost, Applicable Volume all correct?				Correct net volumes/block used for cycle time calculations?			
Is apportionment agreement attached to the ADS?				Camp info correct?			
Has the allocated development been claimed in a previous appraisal?				Is Licensee responsible for basic silviculture?			
Is the info in ECAS consistent with the apportionment agreement?				<b>Specified Operations</b> (no longer includes skidder swing)			
<b>Engineered Development</b>				Is the correct form used?			
Cost Base Year of Original Cost, Original Cost, Trended Cost, Applicable Volume all correct?				Root disease indicated?			
<b>Control</b>				Regional form from sharepoint used and backup data (ie. Cruise compilation) attached?			
Was the Appraisal Data Field Checked?				<b>Acknowledgements</b>			
Was this CP Check Cruised?				Signed off by RPF/RFT?			
Appraisal Data Submission has been validated against FTA?				<b>Attachments</b>			
				Are the required attachments in the ADS? (ie. .dat file, ECE forms and calculations, cruise compilations - .pdf (full/factored), road use agreement - regional forms, cycle time summary, common junctions calculation, Schedule B) attached?			
Comments:							

## Professional Reliance in Timber Pricing

Professional Reliance is “...the practice of accepting and relying upon the decisions and advice of professionals who accept responsibility and can be held accountable for the decisions they make and the advice they give”.

**PR** = Relying on the Professional (Judgment + Accountability)

**Judgement** - function of individual professional, and includes competence and independence in the application of science of forests.

**Accountability** - a professional can answer for their actions or judgments; an acknowledgement and assumption of obligations under professional legislation and accompanying bylaws.

“Professional reliance is a measured approach to receiving advice or delegating work and shared accountability by an employer or government official to a professional with the intent to ensure quality. Professional reliance is also a measured approach to providing and receiving sound advice between non-government professionals and government professionals. It is a mechanism that allows parties to exchange and rely on data or information that is used to manage and administer the provinces forest resources. It is definitely not an avenue to divest responsibility or elude accountability, nor an excuse to blindly defer to another professional’s judgement or advice.

There are several reasons why an employer or a regulator requires the services of a professional within their business.

One reason is that the professional is accountable to a profession and professional standards, established by the profession and defined by a legislative framework. The legislation includes the potential for complaints and discipline based on the professional conduct of the members. The professional holds their conduct to a higher standard and receives respect and credibility (public trust) from society for this place. The employer therefore utilizes professional service to ensure a competent level of practice is achieved and to demonstrate their own credibility for other regulators or the marketplace.

Another reason that is more specific to the type of professional legislation is professionals are used because a law requires it. The employer utilizes the services of the forest professional because their business requires the practice of professional forestry in order to transact their particular venture(s).

The *Foresters Act* sets up four essential components, the practice of professional forestry, the forest professional, the association, and a standard of conduct and care.

### FRPA Forest Practices Explanation

The following is an explanation of forest practices taken from the *Forest and Range Practices Act* (FRPA) for information purposes only.

**Note:** Forest Appraisals Data Submissions and Review are legislated under the *Forest Act*.

Definition in FRPA for “forest practice” means a prescribed activity that is carried out by the government and / or the tenure holder, or person ...on Crown forest land.”<sup>10</sup>

This is of fundamental importance because the two are in parallel and confirm that the actual actions on the ground are carried out by the tenure holder and government. There is a decision framework and tests that exist where the tenure holder proposes planning and the government approves the plans because the propositions meet primary objectives set by the government.

The forest professional provides advice, judgement and direction in the course of their work for both the tenure holder, government and others. The practice of professional forestry supports, plans, directs the forest practice in FRPA; forest practice utilizes the practice of professional forestry to successfully achieve the action.

The tenure holder and the government make the choice of forest practice and carry out the actions on the land, based on the forest professional service within the practice of professional forestry.

Stewardship under FRPA is the result of the actions by the tenure holder and government based on the practice of resource professionals. Another aspect of the professional service in the case of the *Foresters Act* is that the forest professionals must conduct practice consistent with principles of stewardship.

Professional reliance works in this example because FRPA contains requirements, tenure holders engage forest professionals and follow their advice, and forest professionals follow a standard of professional practice in providing their direction and advice.

In summary, the *Foresters Act* is a law of general application that is meant to work independently and alongside other practice legislations. The presence of a particular legislation or obligation does not prevent the other legislations and obligations (there may be a defined priority assigned by law). The onus is on the:

- employers to understand and use professional service when undertaking the practice of professional forestry.
- profession to enforce the use of forest professionals and to establish and enforce standards of practice and conduct by members.
- forest professional to undertake the practice consistent with expectations of the *Foresters Act* and bylaws.

The public interest is served because there are multiple legislations at play each protecting the public interest in some way. The onus is on the professional to understand and articulate the mechanisms.

Professional reliance is an important attribute of several legislations, regulations and policies that might be considered specific or rules based. Examples include the Riparian Areas Regulation under

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<sup>10</sup> *Forest and Range Practices Act* (2002), Section 1, Definitions.

the *Fish Protection Act*, the *Occupational Health and Safety regulations under the Workers Compensation Act* (1996), and the *National Instrument 43-101 Standards of Disclosure for Mineral Projects under the Securities Act*.

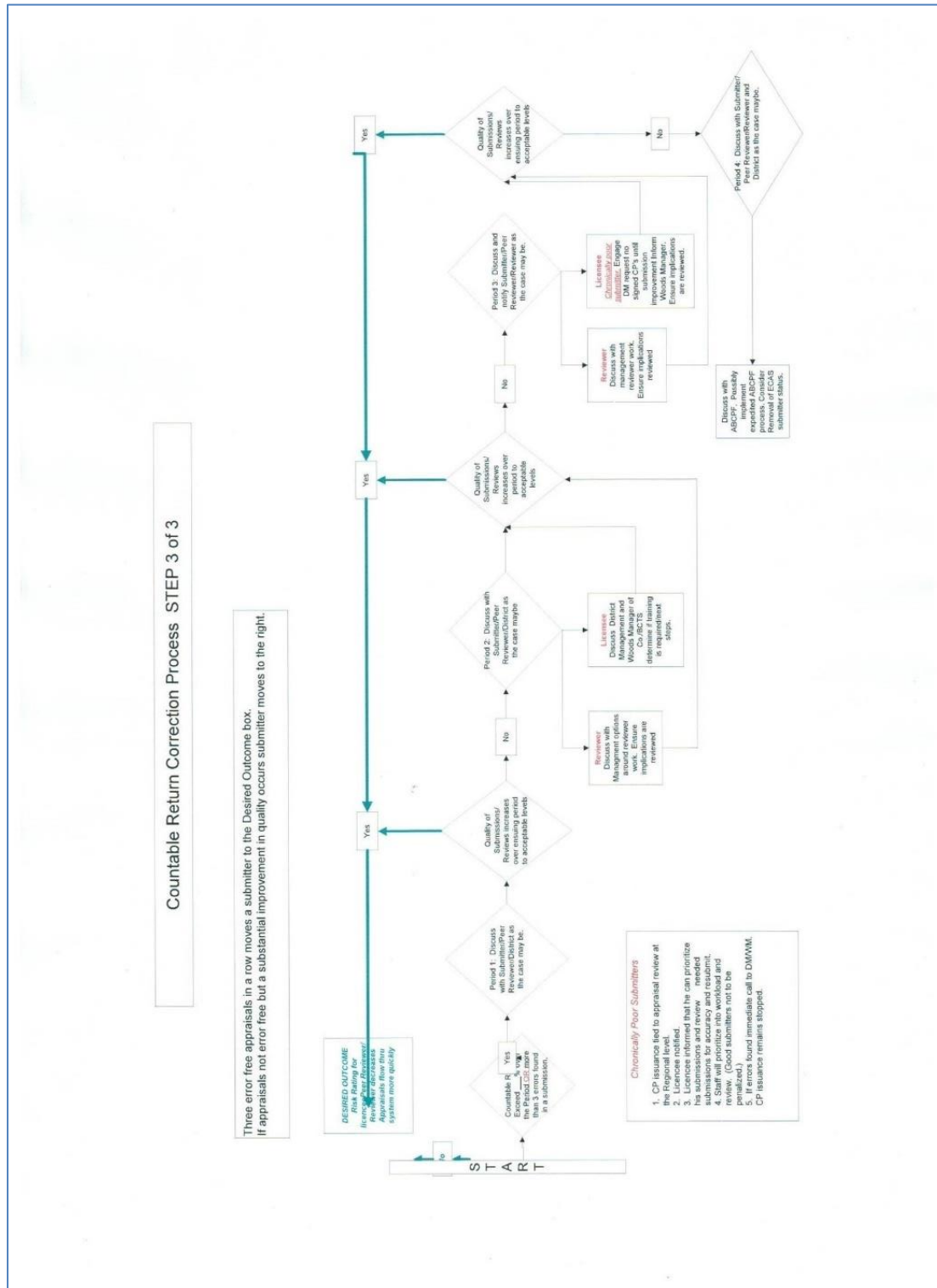
Some of the legislations go as far as identifying the professional associations and defining qualified professionals who will undertake work. Others leave it to regulation, policy and the professionals themselves to identify the parameters of required professional service. The acceptable professional practice that goes into the parameters is defined by the professions through bylaws and resolutions.

The discussion of professional reliance/accountability and the parallel legislation framework that it works within is complex and requires additional commentary. Some points are as follows:

- Increasing the rules in a particular legislation, regulation or policy should provide increased focus on what it is that professional service is supposed to achieve.
- Increasing rules does not necessarily equate to reducing the value of the professional service.
- Increasing the rules may change the function of the accountability/ reliance formula. That is to say, an increasing quantity of rules will have the effect of limiting what it is that the forest professional is entitled to advise or direct their employer to do (with respect to the practice of professional forestry). We would be relying less on the judgement and advice of the professional within the parameters of the rules and therefore they would not be accountable for the implications outside that reliance.
- Professional reliance and professional accountability are a continuum of professional service:
  - Reliance and accountability are equal; a decrease or increase in reliance carries a corresponding decrease or increase in accountability.
  - When the professional provides advice and judgement to an employer and the decision to undertake the action rests with the employer, then the professional is accountable for their advice and not necessarily the decision of the employer. (They would be accountable, and potentially professionally liable, if the employer reasonably followed that professional's advice when they acted and a negative outcome resulted from that action.)
  - When the reliance on professional judgement covers only a specific aspect of a requirement, then the accountability covers only that specific aspect, plus the intended circumstances (i.e. the professional cannot ignore the reasonable and obvious outcomes of their practice).

## Appraisal Review and Professional Disagreements

**Figure 1: Diagrammatic representation of the ABCPF Process as it might look in the Appraisal Process**



An example of how this process might work while minimizing difficult situations is:

A scenario that could occur is the reviewer finds errors and returns the appraisal to the submitter. In ECAS the reviewer would indicate the number of countable errors found. It would be expected that the reviewer would call the submitter if they wished to discuss the number of countable errors found. As a suggestion, if a reviewer found three or more errors in an appraisal submission they may wish to call the submitter and express concerns; this would be the start of the professional accountability model. In some way, though the submitter must be notified that there are concerns with their professional submissions. Over time, if the submissions continue to come in below standard then the reviewer may wish to call the Association and ask them to intercede using the non-disciplinary options. This would be a good second step. If this fails to correct the situation, then the district manager responsible might be approached with a request to talk to the industry manager about the quality of submissions that their staff are making.

## Definition of Practice of Professional Forestry

“Practice of professional forestry” includes four parts:

- **Action:** “for fees or other remuneration, advising on, performing or directing works, services or undertakings which...”
- **Scope:** “because of their scope and implications respecting forests, forest lands, forest resources and forest ecosystems...”
- **Knowledge:** “require the specialized education, knowledge, training and experience of a registered member, an enrolled member or a special permit holder, and...”
- **Examples:** “includes the following: (list of the kinds of things one would find within the practice of professional forestry):
  - a. **planning, advising on, directing, approving methods for, supervising, engaging in and reporting on** the inventory, classification, **valuation, appraisal**, conservation, protection, management, enhancement, harvesting, silviculture and rehabilitation **of forests, forest lands, forest resources and forest ecosystems**;
  - b. the preparation, review, amendment and approval of professional documents;
  - c. assessing the impact of professional forestry activities to
    - i. verify that those activities have been carried out as planned, directed or advised;
    - ii. confirm that the goals, objectives or commitments that relate to those activities have been met; or
    - iii. advise or direct corrective action as required to conserve, protect, manage, rehabilitate or enhance the forests, forest lands, forest resources or forest ecosystems.
  - d. auditing, examining and verifying the results of activities involving the practice of professional forestry, and the attainment of goals and objectives identified in or under professional documents;
  - e. planning, locating and approving forest transportation systems including forest roads
  - f. assessing, estimating and analyzing the capability of forest lands to yield a flow of timber while recognizing public values related to forests, forest lands, forest resources and forest ecosystems”<sup>11</sup>

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<sup>11</sup> Foresters Act (2003), Section 1 Definitions



## **Module 3**

# **Appraisal Submission Topics**

## Introduction

Module 3 is intended to supplement the content of Module 4, ECAS Overview by providing examples of common appraisal data submission issues and suggested procedures to follow to resolve these issues. The intent is to help minimise conflict between submitters and reviewers and build trust which will assist in advancing professional reliance in timber pricing.

## Cycle Time Calculation

Log transportation is the movement of logs from the place of initial loading to the point of appraisal. This includes truck haul, rail, water and other specialized transportation methods.

The cycle time is the estimated truck haul round trip cycle time for the log transportation route used in the appraisal data submission and may include a primary and secondary cycle time calculation. The primary cycle time is from the cutting authority area to the closest mill associated with the point of appraisal (or unloading point for rail or water transportation), and additional time for loading, weighing, unloading, return time, and unavoidable delays. The secondary cycle time is only applicable for transportation routes that require a truck haul after dewatering, and is from the reloading site to the closest mill associated with the point of appraisal.

To complete the truck haul cycle time calculation the local district cycle time tables must be used. The district tables are a collection of known and approved road speeds for each district. Any deviation from the tables requires justification and approval from the person determining the stumpage rate.

The *IAM* has specific procedures to calculate the haul method cycle time. Please refer to section 3.5.1 for more information.

Before a cycle time is used in an appraisal data submission, all viable log transportation routes must be considered. If this involves more than one point of appraisal, the lowest transportation and development cost (TRDEV) calculation must be used to determine the POA and subsequently the Highest Stumpage and transportation to determine the appraisal cycle time. More information about the TRDEV calculation is provided in the next section below.

# **INTERIOR APPRAISAL DATA SHEET - SUPPLEMENT** **SOUTHERN INTERIOR FOREST REGION**

## **CYCLE TIME CALCULATION - LONG**

CP:  Date:

### **WEIGHTED CJ CYCLE TIME**

BLOCK	Time to CJ (hrs)	Block Volume (m3)	Time x Volume
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
0	0.00		0.00
TOTAL		0	0.00
WEIGHTED CJ TIME			0.00

### **WEIGHTED UNAVOIDABLE DELAY**

HARV. SYS.	Volume	Weight	DELAY (hrs.)	Weighted Delay (hrs)
CABLE		0.00	1.25	0.00
HELI		0.00	1.00	0.00
SKIDDER		0.00	1.00	0.00
TOTAL	0	0.00	WEIGHTED DELAY	0.00

## Point of Appraisal (POA) and Transportation/Development (TRDEV)

A POA is a location listed in the POA Table 3-4 in the *IAM*. The POA has several functions in the appraisal.

The Interior Selling Price Zones are defined by groups of the listed POA's. The POA used in the appraisal will determine which Selling Price Zone data (average market values, lumber recovery factors, etc.) will be applied in the appraisal.

All reasonable transportation routes must be considered before the POA can be determined. For example, there may be several transport routes available to one POA or there may be one transport route to several different POA's. Timber does not necessarily have to be hauled to the POA used in an appraisal.

The purpose of the TRDEV cost calculation is to determine the POA without any influence from low grade adjustments or lumber values. When calculating TRDEV costs it is important to use the most current version of the formula, and the most current Consumer Price Index (CPI) found on the Timber Pricing Branch website under MPS Parameters. The lowest TRDEV determines the POA.

Below is the TRDEV formula, as per Section 3.5 of the 2015 *IAM*:

### TRDEV Calculation

$$\text{TRDEV Cost } (\$/\text{m}^3) = [1.992 * [\text{CYCLE} + (0.5 * \text{CYCLE\_INC6})] * \text{CPIF}] + [(\text{SO's} + \text{DC}) * (\text{CPI}/\text{ACPI})]$$

Where:

CYCLE = the cycle time as defined in section 3.3 and measured in accordance with section 3.5.1 and 3.5.2.

CYCLE\_INC6 = as defined in section 3.3. (the cycle time in excess of 6 hrs.)

CPIF = as defined in section 3.3. (Canadian Price Index Factor)

SO's = the sum of the transportation specified operations that apply to the transportation route from sections 3.6.1 and 3.6.2.

DC = Total Development Cost in the appraisal.

CPI = as defined in section 3.3.

ACPI = 139.5 (the average CPI for the cost base (2013/14))

### Recommended steps in the TRDEV calculation process

1. Identify all points of appraisal to which the cutting authority may be appraised.
2. Identify the potential routes, including transportation specified operations (SOs).
3. Calculate cycle times, SOs values and development costs (tributary to the cutting authority) for all options.
4. Current CPI from Timber Pricing Branch website.
5. Calculate TRDEV cost \$/m<sup>3</sup> for each option\* (a standardized spreadsheet is recommended).
6. Select the option with the lowest TRDEV cost.
7. Save a copy to your records and consider attaching in ECAS.

### Sample TRDEV Calculation (using July 1, 2016 equation)

Two possible routes identified:

Option 1:	Option 2:
POA "A"	POA "B"
9.8 hrs Cycle No Specified Op	5.1 hrs Cycle Barge/Ferry used for Truck Haul Specified Op (\$3.75/m <sup>3</sup> )
\$6,250 road upgrade ECE	\$6,250 road upgrade ECE
August 2016 CPI = 144.6, CP Volume = 13,239m <sup>3</sup>	

#### TRDEV Option 1

$$\left(1.992 * [9.8 + (0.5 * 3.8)] * \frac{144.6}{141.7}\right) + \left(\left[0 + \frac{6250}{13239}\right] * \frac{144.6}{139.5}\right) = \$24.27$$

#### TRDEV Option 2

$$\left(1.992 * [5.1 + 0] * \frac{144.6}{141.7}\right) + \left(\left[3.75 + \frac{6250}{13239}\right] * \frac{144.6}{139.5}\right) = \$14.75$$

Option 2, haul via Barge to POA "B" is the lowest TRDEV option, so it must be used in the appraisal, regardless of intended destination mill.

### Recommendations

1. Provide TRDEV calculations as an attachment whenever two or more viable options exist.
2. Include rationale for including development costs that appear to be non-tributary to the lowest TRDEV cost option.

## Development

The development cost estimate in an appraisal or reappraisal may include new construction, reconstruction or replacement projects. The two methods for estimating these costs are tabular cost estimates and detailed engineered cost estimates. There are specific rules regarding the calculation, allocation and amortization of these cost estimates to cutting authorities. For greater detail, please refer to Section 4.3 of the *IAM*. For the purpose of this module, there are several key components of Section 4.3 worth describing here:

- First Fully Appraised Tributary Cutting Authority;
- Engineered Cost Estimates; and
- Amortization Agreements.

### First Fully Appraised Cutting Authority Area

Subject to other sections, including Section 4.3.1.4 (Amortization Agreements), a given development cost estimate may only be used in the first fully appraised cutting authority area submitted under that license. This is further clarified under the definition section as the tributary cutting authority area submitted in ECAS.

A tributary cutting authority, as defined in the *IAM* definitions section, is 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.

### Engineered Cost Estimates

Use and content of engineered cost estimates (ECEs) are one of the most controversial appraisal topics between submitters and reviewers. There are *Regional ECE Procedures Manuals* in the South and North Areas that resolve many of the issues, however there are contentious issues outstanding.

Both ECE procedures are available from the regional timber pricing offices. For North Area and South Area region procedures see the links in the Appendix.

There are various project types listed in the *IAM* that qualify for an ECE. ECEs are for an engineering project, however, some costs of the project are eligible and some may not. Submitters should work early on in the process with the district and regional timber pricing staff when preparing ECEs for complex projects to ensure timely resolution of any issues surrounding eligible costs. For specific development projects, the district manager must be advised of project details no later than 60 days before the start of works.

### Amortization Agreements

The *IAM* allows for amortization agreements where the first cutting authority area includes development costs that are also required to access one or more other tributary cutting authority areas.

In order to enter into an amortization agreement, the projects included in the development cost estimate must be accepted by the person who determines the stumpage rate, the estimate must exceed \$4.00/m<sup>3</sup>, and meet the conditions identified in section 4.3.1.4(2) of the *IAM*.


Communication with district and regional timber pricing staff early in the process will help ensure a timely approval. The Agreement must be submitted to Region and approved by the Regional Executive Director or designate.

The amortization agreement form is called *FS 1422 Amortization Agreement Form – Interior* and is located at:

<http://www.for.gov.bc.ca/pscripts/isb/forms/forms.asp>

or in the Appendix of the *IAM*.

**Figure 3: Interior Amortization Agreement Form**

 Ministry of Forests, Lands and Natural Resource Operations		<h2 style="text-align: center;">Amortization Agreement - Interior</h2>	
<p>This document constitutes an agreement to distribute a portion of the development cost estimate included in the appraisal for the cutting authority indicated below to the tributary cutting authority or cutting authorities identified below in accordance with the <i>Interior Appraisal Manual</i> in effect at the time the agreement is signed.</p> <p>The agreement must be reviewed and approved by the Regional Executive Director (or designate). A copy of this agreement becomes an integral part of the appraisal for each of the tributary cutting authorities identified below.</p>			
<b>Complete Legal Name of Licensee:</b>			
<b>Licensee Address:</b>			
<b>Licence:</b>	<b>CP:</b>	<b>Mark:</b>	<b>ECAS ID:</b>
<b>Project(s): (see attached)</b>			
<b>TOTAL COST ESTIMATE FOR APPORTIONMENT (\$):</b>			
<b>Cutting Authority</b>			<b>Amount (\$)</b>



**This agreement is made for appraisal purposes only and does not confer any obligation on the Crown to compensate licensees for any unamortized costs.**

**Licensee Representative Name & Title (printed)**

**Licensee Representative Signature**

**Date Signed (yyyy/mm/dd)**

**Approved by Regional Executive Director**

**Name (print)**

**Date Signed (yyyy/mm/dd)**

FS 1422 HVA 2014/06

*Please be advised that this information may be released under the Freedom of Information and Protection of Privacy Act*

## Prorating Multiple Biogeoclimatic Ecosystem Classification System (BEC) Zones

The calculation of the basic silviculture cost estimate allows for more than one biogeoclimatic zone and subzone.

For appraisal data submissions (ADS) on or after October 1, 2007 the correct method for prorating the two largest percentages of BEC zone/subzone/variant combinations is as follows:

Take the two BEC zone/subzone/variant combinations with the largest net merchantable areas from all blocks, and then insert the total areas of each of these two BEC zone combinations from all blocks into the formula below to come up with the BEC percent for the Primary and Secondary BEC zone combinations to be used in the appraisal data submission.

All hectares in this calculation will match the appraisal's Net Merchantable Area hectares (or Gross Silviculture Area hectares, if applicable).

Primary BEC % = Primary BEC ha / (Primary BEC ha + Secondary BEC ha) \* 100

Secondary BEC % = Secondary BEC ha / (Primary BEC ha + Secondary BEC ha) \* 100

For example, if your appraisal had the following BEC areas:

- Primary BEC = 60 ha
- Secondary BEC = 30 ha
- Third BEC = 10 ha.

The results will be Primary BEC = 67%, Secondary BEC= 33% and Third BEC = 0.

Ensure that these calculations are shown in the ECAS comments or as a separate ECAS attachment.

## Comparative Cruise

The *Cruising Manual* (Section 2.9) states that the use of comparative cruise data is an exception and must be approved by the Regional Executive Director. Sample design and methods used in a comparative cruise are subject to mutual agreement between the licensee and regional executive director. Consult FLNRO district and regional timber pricing staff when considering the use of a comparative timber cruise prior to preparing the appraisal data submission (ADS)



## **Module 4**

# **ECAS Overview**

## Introduction

The Electronic Commerce Appraisals System (ECAS) must be used by licensees to submit appraisal data to the ministry. This Module is intended as a resource for first time ECAS users and as a reference for more experienced appraisal submitters and reviewers. Additional information is available in ECAS HELP. However the information provided in this module and in ECAS HELP is intended for use during appraisal training activities and as a general guide to appraisals and is not intended as a basis for legal interpretation of the *Interior Appraisal Manual (IAM)*.

## Types of ECAS Users

Depending on their role, different people (submitters and reviewers) will use ECAS to different ends:

- Non-BCTS Licensees submit their ADS directly to the forest district via ECAS;
- Consulting RPFs and RFTs submit an ADS on behalf of their licensee clients to the forest district or region via ECAS;
- FLNRO BCTS staff submit their ADS to the forest district via ECAS;
- FLNRO forest district staff review the ADS in ECAS and then send on to the region; and
- FLNRO regional staff reviews the ADS in ECAS and determine the stumpage rate, which is electronically available to the licensee via the General Appraisal System (GAS).

**Note:** Licensees can use their own in-house systems to create an XML file and upload it to ECAS. Alternatively, ECAS has a tool to create an XML from an existing ADS.

### Non-Government User

You must have a valid and activated BCeID account to use ECAS. BCeID is an Online Service that makes it possible for you to use your user ID and password to sign in securely to BCeID - participating Government Online Services.

**Note:** For first time registrants, if you or your organization does not have a valid and activated BCeID account, the process requires online registration and a visit to a local Service BC office to verify your identity and complete the process for obtaining a valid BCeID.

<https://www.bceid.ca/>

**Please note:** The first time you use your BCeID account, you must activate the account prior to logging into ECAS.

## Setting up your ECAS Profile

Once you have your BCeID account, you must request access to ECAS. You will not be able to use the system until set up is complete.

Request access by filling out the online Access Request form at the following link:

<http://www.for.gov.bc.ca/hva/ecas/access.htm>

Before you can begin to use ECAS, the ECAS Help Desk will set up your information in ECAS. You should then verify your information in ECAS by using the following link:

<https://apps.nrs.gov.bc.ca/ext/ecas/indexAction.do>

### Steps to Verify Your Information in ECAS

1. From the Administration menu, select User Search. The User Search screen displays.
2. Verify that the user information sent to you when you received your BCeID displays in the User ID field exactly as you entered it.
3. Click Search. The results of your search are displayed in the bottom portion of the screen.
4. Click the Details button beside the search result that you want to update. The Maintain User screen is displayed. If you make any changes ensure you click the **SAVE** button each time.

The next step depends on whether you are a first time user submitting an ADS or an FLNRO district or region reviewer.

### First Time BCTS and Non-Government Submitters

Submitters are professionally accountable for the quality of their appraisal data submission (ADS). They have a professional responsibility to their client or employer to submit appraisals which follow the policies and procedures outlined in the applicable appraisal manual. They have a professional responsibility to submit appraisal data which are accurate estimates at the time of submission.

Methods to ensure quality appraisal submissions include self-assessing competency in submitting and reviewing appraisals, maintaining competency in the appraisal field of practice by staying current with legislation and regulations, participating at the RAAC and IAAC meetings, and using peer reviews of work prior to submitting an appraisal.

### First Time Ministry Reviewers

Forest professionals reviewing appraisals carry out a professional quality review as fairly and consistently as possible. Once an ADS has been submitted, the district must receive it. There is a



box on the bottom left corner of the inbox screen that must be checked off before review can commence.

In the bottom portion of the Maintain User screen, fill in the following fields (note: use the User Search screen in ECAS to find your profile, then select Details to navigate to the Maintain User screen):

- a. Enter the client number – You can click the icon next to the client number field and navigate to the client search screen where you will be able to find the applicable client. Click the Select button in the bottom portion of this screen to return to the Maintain User screen.
- b. Enter the corporate name.
- c. Enter the client location.
- d. If you are a district representative, the district representative indicator will be checked for you already.
- e. If you are a region representative, the region representative indicator will be checked for you already.
- f. Remember to click Save – The information entered appears in the bottom portion of the screen – click the Details button to edit the information.
- g. Repeat this process for every client that you will be responsible for reviewing their appraisals.
- h. Auto email notifications for different clients may need to be set up for each client within the organization unit.

## Using Electronic Commerce Appraisals System (ECAS) Help

### ECAS Help Desk

The Electronic Commerce Appraisals System (ECAS) was developed to replace the paper driven process of submitting appraisal data to the ministry. Just as there are two distinct appraisal manuals and policy, ECAS is divided into Coast and Interior tracts. As these manuals are amended periodically, ECAS will be changed to collect the appropriate data accordingly. The system is designed to operate over the internet to take advantage of the speed of electronic communication. Technical questions or problems encountered may be submitted through the Help Desk link.

The ECAS Help Desk is available to assist ECAS users. Contact the ECAS Help Desk if you have questions or feedback about the system or if you are encountering technical difficulties.

The ECAS Help Desk is intended to maintain reasonable expectations and consistent service between the ECAS Help Desk and users of the Electronic Commerce Appraisal System (ECAS).

Hours of operation are 8 am to 4 pm, Monday to Friday (PST).

For all enquiries, please contact the ECAS Help Desk

Fax	1-250-387-5670
Email	<a href="mailto:FLNRHVAP_ECASHELP@gov.bc.ca">FLNRHVAP_ECASHELP@gov.bc.ca</a>

If possible, please provide details of your concern or issue. An ECAS ID and current example of the issue helps isolate the problem. A clipped picture of the problem is also very helpful.

### ECAS Online Help

More detailed technical information may be found at the link below. Or, using the interactive link provided on each screen in ECAS.

ECAS Online Help Link: <http://www.for.gov.bc.ca/hva/rh/ecas/>

## ECAS Screens Review

There are up to 11 different screens in ECAS that may be used for an Interior appraisal data submission: Reference Information, Cruise Info/Tree-to-Truck, Tabular Roads, Culverts, Other Development, Log Transportation/Administration, Specified Operations, BC Timber Sales, Attachments, Acknowledgements and Control.

At the top of each screen there are navigation selections. Administrative functions such as search, xml uploads, reports, user search, etc. are available depending on your security profile. This includes a link to the ministry's General Appraisal System (GAS) where a report of detailed stumpage calculations can be retrieved for appraisals that have had rates determined. Please note that reports are only available for appraisals effective after June 30, 2012.

When working in each different screen, you will have the option to "Enter" or "Select from a Drop-Down Menu" in each field.

### ECAS05 – Inbox Search

Application Home Help

## ECAS05 - Inbox Search: IDIRJRNUNN

[Search Historic or Non Appraised Appraisals in GAS](#)

Org Unit: HRE - Research & Knowledge Mgmt Branch ( )  
HTH - Forest Tenures Branch  
HTI - Tree Improvement Branch  
HTS - Forest Analysis and Inventory Bran  
HVA - Timber Pricing Branch

Licence:

Timber Mark:

Appraisal Type:

ECAS Status: \* ACC - Accepted \*  
\* APP - Approved \*  
BUP - BCTS Update

Date Type: Appraisal Effective Date  
Appraisal Expiry Date  
Entry Date

Mgmt Unit Type:

Coast: ☐ Interior: ☒ All: ☐

Search  Clear

Cutting Permit:

ECAS ID:

Reappraisal Reason:

From Date:

From Date:

Mgmt Unit ID:

My to do list: ☐ All Submissions: ☒

Ascending: ☐ Descending: ☒

Sort:

User ID:

Client Number:

BCTS Fund: ☐

To Date:

To Date:

File Type:

Result Pages: 1 2 [Next](#)  
127 rows returned

Rcvd Id	Ecas Mark	Timber Mark	Licence	CP	Client Name	Appraisal Type	Effective Date	ECAS Status	Status Change Date	Submitted Date	District Received Date	Sent to Region Date
5008	FA9174	A13840	174	0015423407 - GAS TEST CLIENT 2	Reappraisal	2014-07-01	Region					
4937	FC5103	A16821	103	0015423407 - GAS TEST CLIENT 2	Reappraisal	2014-08-24	Returned	2014-08-20				
4894	FC5103	A16821	103	0015423407 - GAS TEST CLIENT 2	Reappraisal	2014-06-28	Verified	2014-08-20	2014-06-17	2014-06-17	2014-06-17	
4903	FC5103	A16821	103	0015423407 - GAS TEST CLIENT 2	Reappraisal	2014-07-01	Region	2014-08-20				

## Navigation – important links:



History – displays the Audit Log History which provides information relating to the appraisal data submission, including comments from the licensee, district and region, as well as tracking changes to the data.

Save (on individual screens) – if changes have been made to the data, it is important to use the save button before navigating to another screen or any changes made will be lost.



Copy – makes a duplicate of an existing appraisal to use as the starting point for a new appraisal.



Print – Provides a pdf document in an email of the Appraisal data submission.

## ECAS60 - Reference Information Screen

Application Home
Help

**ECommerce Appraisals (ECAS) - Interior**

Search
Submissions
Administration

Reference Info
Cruise Info / Silv / TTT
Tabular Roads
Culverts
Other Dev.
Log Trans/Admin
Spec. Ops.
BC Timber Sales
Attachments
Acknowledge.
Control

### ECAS60 - Reference Information

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID

[Stumpage Rate Summary](#)

Licence: A16821
Cutting Permit: 103
Timber Mark(s): FC5103
AND Effective Date: 2014-08-24
OR ECAS ID: 4937
Go

Add New
History
Back

Licensee Name: GAS TEST CLIENT 2

ECAS Status: RTN - Returned
Client Number: 00154234 07
Update

Timber Mark: FC5103
Update Timber Mark
Reference Timber Mark: FC5103

AAC: 23084 m<sup>3</sup>

Admin Forest District: DND - Nadina Natural Resource District
Geographic Forest District: DLA - OBSOLETE - Lakes Forest District (DND)

Tenure Type: A01 - Forest Licence

NRFL Bonus Bid (\$/m3):

TSA: 14 - Lakes TSA
TSB: 14A - Lakes TSA Block A

Appraisal Effective Date: 2014-08-24
Appraisal Expiry Date:

Appraisal Type:
New Appraisal
Reappraisal: CHM - Change in Harvest Method

Point of Appraisal: HOUS - Houston \*
Comparative Cruise: Yes No

Selling Price Zone: 5 - Northern Interior

Stand Rate Eligibility:
Coniferous: C - CB Live and Dead
Deciduous: C - CB Live and Dead

Save
Delete Appraisal

The information on this screen includes display-only information for the cutting authority area as received from Forest Tenures Administration (FTA) for that cutting authority.

### ECAS Status

The status of a submission changes as it flows through the system. When an appraisal is in Draft status, it cannot be viewed by District or Region and it can be deleted by the licensee.

### Client Number and Client Location Code

Is the Ministry's way of tracking a legal entity's name and address information that qualifies it to enter into a business relationship with the ministry? The client number and client location code must match FTA data entry.

### Timber Mark

Is the Timber Mark of the cutting authority being appraised.

### Reference Timber Mark

Normally left blank unless Comparative Cruise Data from a Comparative Cruise is used.

### NRFL Bonus Bid

For competitive Non Replaceable Forest Licences. The bonus bid in \$/m<sup>3</sup> applicable to the cutting authority area.

### Timber Supply Block

Based on where the cutting authority area is located. The Timber Supply Block (TSB) layer is available in MapView. Where the cutting authority is located within two or more TSBs, select the TSB that includes the majority of the cutting authority area. For TFL's, the TSB is not applicable and should be left blank.

### Appraisal Effective Date

The appraisal effective date is used to determine the applicable Interior Appraisal Manual (*IAM*), and respective policy, to be used in determining a stumpage rate. The Appraisal Effective Date is generally the issue date of the cutting authority. There are cases where the Appraisal Effective Date entered in ECAS will affect which fields are available in ECAS, depending on the associated *IAM*. For example, root disease cost entry field moved screens to align with MPS Specified Operation requirements in July, 2012. The Appraisal Effective Date can differ from FTA only for BCTS or in the instances where a reappraisal is required as described in the Interior Appraisal Manual.

### Appraisal Expiry Date

The appraisal expiry date is the same as the cutting authority expiry date. In the case where a reappraisal is required, the original appraisal expiry date is one day prior to the reappraisal effective date.

### Appraisal Type

Is either a new appraisal or a reappraisal as identified in Section 2.2 of the *IAM*.

### Reappraisal Type

If a reappraisal, refer to Section 2.2 of *IAM*.

### Point of Appraisal

The Point of Appraisal is selected from the list in Table 3-4 of the *IAM* that produces the highest stumpage rate unless otherwise exempted in Section 3.5 (1) of the *IAM*.

### Comparative Cruise

If a comparative cruise is used select yes, otherwise no. A comparative cruise can only be used in those situations described in Section 1.5.1.1.

### Selling Price Zone

The selling price zone is determined by the point of appraisal. Please refer to Table 3-4 of the *IAM*. In ECAS this field is automatically set by the POA selected.

### Stand Rate Eligibility (SRE) Codes

Stand Rate Eligibility codes are mandatory in ECAS and are used in the stumpage calculation in the General Appraisal System (GAS) and the Harvest Billing System (HBS) to apply the correct stumpage rate to different scale grade or in the case of cruise-based cutting authority, the cruise grades.

For example, scale based permits where the calculated stumpage rate applies to conifer sawlog grades only, the coniferous SRE is “Sawlog Grade”, and the Deciduous SRE is “No Grades”.

Or, in the case of a cruise based (lump sum) cutting authority, (the calculated stumpage rate applies to all grades), the coniferous SRE is “CB Live and Dead”, and the Deciduous SRE is “CB Live and Dead”.

## ECAS63 – Cruise Information/Tree to Truck/Silviculture

[Application Home](#) [Help](#)

**ECommerce Appraisals (ECAS) - Interior**

[Search](#) [Submissions](#) [Administration](#)

[Reference Info](#) [Cruise Info / Silv / TTT](#) [Tabular Roads](#) [Culverts](#) [Other Dev.](#) [Log Trans/Admin](#)

[Spec. Ops.](#) [BC Timber Sales](#) [Attachments](#) [Acknowledge.](#) [Control](#)

**ECAS63 - Cruise Information / Tree To Truck / Silviculture**

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID [Stumpage Rate Summary](#)

Licence:  Cutting Permit:  Timber Mark(s):  AND Effective Date:  OR ECAS ID:

**Cruise Information**

Total Net Coniferous Cruise Volume:  m<sup>3</sup>

Net Merchantable Area:  ha \*

Gross Silviculture Area:  ha \*

Deciduous Volume (m<sup>3</sup>):  m<sup>3</sup> \*

Sampling Error %: (at 2 stand. dev.)  % \*

CP Avg. Vol. / Tree:  m<sup>3</sup>/tree \*

CP Avg. Vol. / ha:  m<sup>3</sup>/ha \*

CP Average Slope:  % \*

CP Plots/Hectare:  #/ha \*

CP Trees/Plot:  trees/plot \*

CP Cruise Date:  (YYYY-MM) \*

**Silviculture**

BEC Zone:  \* Sub Zone:  \* Variant:  %:  \*

BEC Zone:  Sub Zone:  Variant:  %:

Is the licensee responsible for basic silviculture? \* ☒ Yes ☐ No

Is Root Disease Control required? \* ☒ Yes ☐ No Root Disease Control Cost:  \$

Species	Volume (m <sup>3</sup> )	Decay (%)	Stud Log (%)	LRF	Burn (%)	Insect Damage Type	Volume (m <sup>3</sup> )
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
*	*			*		*	*
BA - Balsam	1459	10	45	186	0		
				<input type="button" value="Update"/>	<input type="button" value="Delete"/>		

Tree to Truck

	Conventional		Overhead Cable		Skyline	Other Systems		Horse
	Ground Skidding		Highlead / Grapple			Helicopter		
	Clear Cut	Partial Cut	Clear Cut	Partial Cut		Clear Cut	Partial Cut	
Vol. to be harvested (m <sup>3</sup> ) *	65339						1500	
Lodgepole pine vol. (m <sup>3</sup> )								
Hemlock (m <sup>3</sup> )								
Spruce vol. (m <sup>3</sup> )							33	
Biogeoclimatic zone *	SBS						CWH	
Net volume/tree (m <sup>3</sup> ) *	.59						.43	
Volume/hectare (m <sup>3</sup> ) *	381						678	
Stand defect (%)	17						44	
Partial cut (%) *							30	
Average slope (%) *	10						54	
Blowdown (%)	2						44	
Heavy fire damage (%)	0						44	
Dead useless snags (%)	0						44	
Skyline yarding dist. (m) *								
Heli yarding dist. (km) *							.9	
Uphill yarding ?						<input type="checkbox"/>	<input type="checkbox"/>	
<input type="button" value="Save"/>								
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The information on this screen comes from the Appraisal Summary Report page(s) of the cruise compilation. Ensure that the proper cruise summary page(s) are used and are identified as being “For Appraisal Purposes”.

Both full volume and percent reduction (where applicable) cruise compilation summaries and ASCII files are to be provided in the attachment. Where reductions are applicable in the cutting authority area, the percent reduction compilation is used to populate ECAS (with the exception of the standard error).

Each value on the Cruise information screen is a compilation of all of the applicable cruise data and rounding occurs at this number. Adding the totals of each conifer up in ECAS will occasionally not add up to the total net coniferous and deciduous volume indicated on the cruise summary page. When this happens increase the largest coniferous volume up or down to match the net cruise volume. The deciduous volume may require rounding up or down as well to meet the Applicable Volume total.

### Cruise Information Section

#### Total Net Coniferous Cruise Volume

The volume is automatically populated from the species table. The value may be plus or minus one m<sup>3</sup> in comparison to the total identified in the Appraisal Summary due to rounding. If they do not match, it is generally accepted to add/subtract one m<sup>3</sup> from the species with the largest volume. Ensure that the applicable volume on all screens in ECAS match the total volume on your Cruise Information/ Tree to Truck screen.

The following values can be found in the Appraisal Summary Report of the Cruise Compilation:



### **Net Merchantable Area**

The net merchantable area (NMA) is the same area directly attributed to the appraised net merchantable volume for the cutting authority area.

### **Gross Silviculture Area**

In most situations, the gross silviculture area (GSA) is equal to the NMA. However, the cutting authority may include additional area (not included in the NMA) where the licences has an obligation to establish a free-growing stand. These additional areas are generally small scale salvage harvest areas created in the past.

### **Deciduous Volume**

Include the deciduous volume when the license requires the harvesting of deciduous species. Or, in all competitive sale tenures, where deciduous is part of the sale volume.

### **Sampling Error %**

Is found on the Appraisal Summary Report, but must be from the full volume summary (not reduced).

### **CP Net Vol/Tree**

Shown on the Appraisal Summary Report (red circled below)

### **CP Net Vol/ha**

Shown on the Appraisal Summary Report (red circled and arrow below)

### **CP Average Slope**

Shown on the Appraisal Summary Report (red circled below)

### **CP Plots/Hectare**

Shown on the Appraisal Summary Report (red circled below)

### **CP Cruised Trees/Plot**

Shown on the Appraisal Summary Report (red circled below)

### **CP Cruise Date**

Earliest cruise date from cruise compilation Plot Summary or from bottom of Appraisal Summary Report. Shown on the Appraisal Summary Report (red circled below)

### Figure 4: Sample Appraisal Summary Report

The following sample Appraisal Summary Report is typical of most cruise compilations. Some of the information required on the Cruise Information screen is highlighted in red.

\*\*\* FOR APPRAISAL PURPOSES \*\*\*

Average Line Method

Licence Number: CP

Project:

Location :

Utilization Levels:

Mature Blocks: (cm)

Immature Blocks:(cm)

Exception[FI]: (cm)

Exception[CW]: (cm)

Standard Log Length:(m)

Grades: MOF Computerized

Computerized Decay

Computerized Waste

Computerized Breakage

No Of Blocks : 5

Minimum DBH

Top Diameter

Stump Height

17.5

12.0

12.5

17.5

5.00

10.0

10.0

10.0

15.0

30

30

30

30

Net Area: [All Treatment Units : 54.4 ]

All Method Summary

Species

Code Description

CE Cedar

FI Doug-Fir

HE Hemlock

SP Spruce

CO Cottonwood

Conifer

Total

All

LIVE

DP

All

LIVE

DP

Decay%

Stud Log#

LRF

All

Burn%

Harvesting Method Summaries

Species

Harvest Method

All Species

CC

HC

SC

Conifer

CC

HC

SC

All Methods

Net Volume

Average Slope%

Net Vol /Tree

Net Vol/ha

Defect% (DWB)

Partial Cut%

All Fire%

Heavy Fire%

Down Tree%

Dead Useless%

Insect Damage

Net Volume (m3)

L.P. Pine

Green Attack

Red Attack

Grey Attack

Insect Damage

L.P. Pine Red/Grey Attack % of Conifer by Block

001: 0%

002: 0%

003: 0%

004: 0%

005: 0%

Cutting Authority

95% Confidence Interval

Plots/Ha

Cruised Trees/Plot

# Plots: 68

# <= 5yrs: 68

# > 5yrs: 0

# > 10yrs: 0

# no date: 0

FLAGS: Full Volumes, Normal Cruise, All Trees Compiled, Double Sampling Factor Applied, Damage, , Wet Belt Fir

CruiseComp Copyrights 1996-2011, TECO Natural Resource Group Ltd.

When deciduous species are a component of the cutting authority area's harvesting plan, the volume must be included in the appraisal. The general rule to follow is:

- BCTS - include deciduous volumes reported in the cruise
- Non-BCTS cruise-based cutting authorities - include deciduous volumes reported in the cruise

For situations where trees will be retained from harvest in the cutting authority area, the % reductions in the compilation must factor in the complete removal of trees in the R/Ws. For example, if the cutting authority is expected to retain 100% of the Fir, and it is dispersed evenly across the cutting authority area, 90-95% retention is typically used in the compilation (depending on the amount of road or the amount of stems in the compilation). Schedule B of the cutting authority should match the cruise compilation and should be included in the ECAS submission.

**Figure 5: Deciduous Species Reporting Requirements**

<b>Cruise information Section</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees</b>
CP Ave Vol/tree	Conifer & Deciduous	Conifer & Deciduous
CP Ave Vol/ha	<b>Conifer only</b>	<b>Conifer only</b>
<b>Tree to Truck section</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees</b>
Vol to be harvested (m3)	Conifer & Deciduous	Conifer & Deciduous
Net volume/tree (m3)	Conifer & Deciduous	Conifer & Deciduous
Volume/ hectare (m3)	Conifer & Deciduous	Conifer & Deciduous
Stand defect %	Conifer & Deciduous	Conifer & Deciduous
Partial cut %	Conifer & Deciduous	Conifer & Deciduous
Average slope %	NA	NA
Blowdown %	Conifer & Deciduous	Conifer & Deciduous
Heavy Fire Damage %	Conifer & Deciduous	Conifer & Deciduous
Dead useless snags %	Conifer & Deciduous	Conifer & Deciduous
<b>Tabular Road s</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees (scale based/Cruise based)</b>
Applicable Volume	Conifer & Deciduous	conifer only/conifer & Deciduous
<b>Culverts</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees (scale based/Cruise based)</b>
Applicable Volume	Conifer & Deciduous	conifer only/conifer & Deciduous
<b>Other Development/ Allocated development &amp; Engineered Development</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees (scale based/Cruise based)</b>
Applicable Volume	Conifer & Deciduous	conifer only/conifer & Deciduous
<b>Log Trans/Admin</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees</b>
Approved road use charges \$/m3		
<b>Spec. Ops</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees</b>
High Development cost (BCTS) \$/m3		NA
<b>BC Timber Sales/ Allocated Development</b>		
<b>Variable</b>	<b>BCTS</b>	<b>Non BCTS licensees (scale based/Cruise based)</b>
Applicable Volume m3	Conifer & Deciduous	conifer only/conifer & Deciduous
<b>**Notes:</b>		
1) For appraisals, use data from factored/reduced cruise compilation Appraisal Summary Report (if volume/species reductions have been done)		
2) If Deciduous volumes in factored/reduced compilation, then use All-species Tree-to-Truck data		
3) If any discrepancies between this table and the Interior Appraisal Manual, the IAM will be the over-riding authority		

## Silviculture Section

### BEC Zone

Refer to Module 3 for detailed explanation of how to account for more than one BEC zone in an appraisal.

### Basic Silviculture

Toggle to “YES” when the License has basic silviculture obligations, except BCTS, which is always “NO”.

### Root Disease Control Cost

If applicable, enter the total value of root disease control calculated using the Regional form.

## Species Section

### Coniferous Species Information

The data for the species table is taken from the Appraisal Summary Report (percent reduction, where applicable) of the cruise compilation, and only includes coniferous values. It includes the Volume, Decay (%), Stud Log (%), LRF, and Burn (%) by species.

### Insect Damage Type

The volumes by type are found on the Appraisal Summary Report. The following lodgepole pine categories are required: GA - Green Attack, RA - Red Attack, YA – Gray Attack. There must be lodgepole pine volume in the species section to be able to enter volume for these categories in this section. The other insect damage category (OTH) applies to all species.

## Tree To Truck Section

### Conventional

Where this harvest method is ground based.

### Overhead Cable-Highlead Grapple

Where this harvest method is highlead/grapple.

### Overhead Cable – Skyline

Skyline yarding estimates will be recognized for each block where the average yarding distance is greater than 300 m, or intermediate supports are used. Refer to Section 3.6.4 for directions on calculating the average yarding distance.

The requirement for a 300 metre average yarding distance may be waived where the ministry and the licensee agree that forest and land management is better served by skyline yarding.

Also, where the skyline yarding distance is 600 meters or greater, it is considered Helicopter in the appraisal.

### Other Systems – Helicopter

Where this harvest method is by helicopter. The Heli yarding distance (km) must be entered. It is the average loaded horizontal yarding distance flown by the helicopter measured to the nearest 0.1 km. The box for uphill yarding must be checked if this is the case.

### Other Systems – Horse

Where the harvest method is horse yarding.

### Partial Cut

Partial cut is defined as areas having less than 90 percent volume removal. Where a partial cut is comprised of openings less than 1 hectare in size, the percent is based on the cumulative volume of these openings divided by the volume of the cutblock area surrounding them. The Partial Cut % comes from the all-species data in the Percent Reduction Applied – Appraisal Summary Report. Partial cut areas with less than 90% removal are not to be averaged with areas that have 90% or greater removal.

### Biogeoclimatic Zone

Where a harvest method area occupies more than one biogeoclimatic zone, select the zone that occupies the greatest net merchantable area in the harvest method area shall be used.

## ECAS67 - Tabular Roads

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**ECommerce Appraisals (ECAS) - Interior**

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Spec. Ops. BC Timber Sales Attachments Acknowledge. Control

**ECAS67 - Tabular Roads**

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID [Stumpage Rate Summary](#)

Licence: A16821 Cutting Permit: 103 Timber Mark(s): FC5103 AND Effective Date: 2014-08-24 OR ECAS ID: 4937

Tabular Road Construction (New)

Applicable Volume:  m<sup>3</sup>

5 rows returned

Road Identifier	Road Group	BEC Zone	Road Section Number	Road Type	Subgrade			Stabilizing Material			Distance to Source (km)
					Section Length (km)	Soil Moisture	Side Slope (%)	Rock (%)	Stabilizing Required	Length Type (km)	
* * * *	* * *	* * *	* * *	* * *	* * *	* * *	* * *	* * *	* * *	* * *	* * *
SPUR A	3 - Road Group 3	SBS	1 L - Long Term	5.000 D	6	1 Y - Yes	0.999 O	2.9	<input type="button" value="Update"/>	<input type="button" value="Delete"/>	
Total:				5.000							
SPUR B	3 - Road Group 3	SBS	2 L - Long Term	0.889 M	8	0 N - No	Q	2.8	<input type="button" value="Update"/>	<input type="button" value="Delete"/>	
Total:				0.889							
SPUR C	3 - Road Group 3	SBS	3 S - Short Term	0.445 W	6	0 Y - Yes	0.432 O	2.4	<input type="button" value="Update"/>	<input type="button" value="Delete"/>	
Total:				0.445							
SPUR D	3 - Road Group 3	SBS	4 S - Short Term	1.178 M	7	12 Y - Yes	1.123 Q	3.1	<input type="button" value="Update"/>	<input type="button" value="Delete"/>	
Total:				1.178							
SPUR E	3 - Road Group 3	SBS	5 S - Short Term	0.300 D	5	45 Y - Yes	0.300	2.3	<input type="button" value="Update"/>	<input type="button" value="Delete"/>	
Total:				0.300							
Grand Total:					7.812						

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New road construction is entered on this screen if it is considered tabular construction. See the engineered cost estimate section for when new construction is considered an ECE. New development costs are allocated to the licensee's first fully appraised tributary cutting authority area and are those required to remove the timber from the cutting authority area. New road construction costs can be comprised of both subgrade and stabilizing costs, but never stabilizing costs alone. Section 4.3.1.3 provides a definition of existing roads for the cutting authority being appraised, which are not eligible for inclusion in development cost estimates.

### Applicable Volume

The applicable volume is the net merchantable volume for the cutting authority area. Refer to Section 4.3.1 of the *IAM*. For cruise based marks with deciduous species billed at the stand rate, the volume needs to include deciduous species (refer to Figure 5 for more detail).

### Road Identifier

Is the name associated with the particular section of tabular road and should be consistent with the Appraisal Map details.

### Road Group

The correct road group from Table 4-1 must be used, and is tied to either a district, TSA (timber supply area), SB (supply block) or TFL (tree farm licence).

### BGC Zone

The biogeoclimatic zone must be identified for each road section. Where a road section is divided by two BEC Zones, each of the segments must be identified separately according to the zone, and must be a minimum 0.1 km long. Each segment must have its own unique road identifier in ECAS.

### Road Section Number

The number is a unique identification number for each road section.

### Road Type

The road type options are Snow/Ice Road (WINTER), Long Term (LT) or Short Term (S). Refer to Section 4.3.2.2 of *IAM*.

### Subgrade

#### Section Length

Section length is recorded to the nearest 0.1 km and should generally be longer than 1 km. Refer to Section 4.3.2.2 of the *IAM* for a detailed description.

Each tab road section in the appraisal must be an average of several measurements along the section, and within +/-15% of that average. For example, don't include sections of 40% into the road section if the average is 20% and all other measurements range from 5-35%. Also note that sections must be representative of a single moisture class.

#### Soil Moisture Regime (SMR)

Soil Moisture is determined using the Conversion table in Appendix III of the *IAM*. There are three moisture codes (Dry, Moist, and Wet) that can factor into the road cost estimate.

#### Side Slope (Slope %)

Uphill slope for a section of road is 0 to 50%. An engineered cost estimate is required for road sections above this range

#### Rock (%)

Rock percent for a section of road is 0 to 50%. An engineered cost estimate is required for road sections above this range.

## Stabilization Material

### Stabilizing Required

A Yes/No indicator of the stabilization requirements for the section of road. Stabilization does not apply to Snow roads.

### Length

The length in km of additional stabilization material required for the section of road. The length must be between 0 and the length of the subgrade.

### Material Type

Type of material used in the stabilization of the road. Quarry (Q) if the material is either ripped or quarried rock.

### Distance to Source

Distance from the source of the ballast material to the mid-point of the section of road requiring the stabilization.

## ECAS66 – Culverts

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### ECommerce Appraisals (ECAS) - Interior

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Spec. Ops. BC Timber Sales Attachments Acknowledge. Control

#### ECAS66 - Culverts

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID [Stumpage Rate Summary](#)

Licence: A16821 Cutting Permit: 103 Timber Mark(s): FC5103 (+) AND Effective Date: 2014-08-24 OR ECAS ID: 4937 Go

#### Culverts (Tabulated)

Applicable Volume: 10000 m<sup>3</sup>

Save

Circular Pipe Diameter (m)	Circular Pipe Length (m)	Number
1.2	16	1

Update Delete

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An appraisal may include a tabular (table 4-2 of the *IAM*) cost estimate for the supply and installation of culverts from 0.95 to 1.8 m in diameter.

**Note:** Culverts under 0.95 m in diameter (or the equivalent cross-section area) and all single log abutment culverts up to 3.4 m span length are included in the tabular subgrade cost estimate.



Detailed engineering cost estimates in Section 4.3.3 of the *IAM* are required for culverts that do not qualify for tabular culvert cost estimates.

## ECAS68 - Other Development

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### ECAS68 - Other Development

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID

[Stumpage Rate Summary](#)

Licence: A16821
Cutting Permit: 103
Timber Mark(s): FC5103
AND Effective Date: 2014-08-24
OR ECAS ID: 4937
Go

#### Other Structures

Fencing: 100 (in 100's of metres)

Number of Cattle Guards: 0

Number of Single Pipeline Crossings: 1

Number of Multiple Pipeline Crossings:

Save

#### Allocated Development

Identifier	Description	Cost Base Year of Original Cost	Original Cost(\$)	Trended Cost (\$)*	Applicable Volume (m <sup>3</sup> )	
		*	*	*		Save Cancel

\* Trended to the Cost Base of the Current Manual

#### Engineered Development

Identifier	Description	Cost Base Year of Original Cost	Original Cost(\$)	Trended Cost (\$)*	Applicable Volume (m <sup>3</sup> )	Amended	
		*	*	*			Save Cancel
1976	Bridge Repair	2000	7600.00	6824.80	51839	<input type="checkbox"/>	Update Delete
1977	621-1 Spur Reactivation	2000	2469.00	2217.16	51839	<input type="checkbox"/>	Update Delete

\* Trended to the Cost Base of the Current Manual

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## Other Structures

Each of the following structures must be identified on the appraisal map:

### Fencing

Refer to the definition of “Remedial Fences and Wing Fences” in Section 1.1 of the *IAM*. The need for fencing should be reviewed by the district range specialist. The appraisal staff at the region approves the cost estimate that is used in the appraisal.

#### Number of Cattle Guards

The need for cattle guards and total number should be reviewed by the district range specialist.

#### Number of Single Pipeline Crossings

Required for the cutting authority, and are single pipe crossings.

#### Number of Multiple Pipeline Crossings

Required for the cutting authority, where 2 or more pipes are crossed within the same right-of-way.

#### Allocated Development

This section is for apportionment agreements and other allocated development such as the Crown portion of development costs accessing private and Crown timber (Sections 4.3.1.1, 4.3.1.2, and 4.3.1.4).

For allocating costs for development on Crown or Private Land, refer to Section 4.3.1.1 and 4.3.1.2 of the *IAM* for details on prorating the cost.

Detailed costs associated with the development must be treated the same as those for Engineered Development. If the development falls within tabular parameters, tabular equations should be used to estimate the development.

#### Identifier

A unique identifier for each development entered.

#### Description

The description field should have information directly related to the ECE i.e., Name, location, or engineered development type.

#### Cost Base Year of Original Cost

The year in which the ECE costs were based on or incurred.

#### Original Cost (\$)

The original ECE costs before any trending.

#### Trended Cost (\$)

Trending occurs where the ECE must be adjusted to match the cost base of the manual in effect at the time of the appraisal or reappraisal. Trend factors for ECE costs are found in Table 4- 3 of the *IAM*. (May 1, 2014 version).

**Please note: The ECE trending was removed from the *IAM* on July 1, 2014. No trending is required for appraisal effective after this date.**

### Applicable volume

The net merchantable volume for the cutting authority area and the same volume that was used in the tabular road sections. For cruise based marks with deciduous at the stand rate, the volume needs to include deciduous.

### Engineered Development

Section 4.3.3 lists the specific situations that are considered for detailed engineering cost estimates. Currently NIR and SIR each have their own engineered cost estimate (ECE) procedures.

Note: Special consideration has been made for Road Group 1, Kalum District, Section 4.4.3(5) (n), previously Section 4.4.3 (14), for subgrade and ballast cost estimates. The subgrade and ballast cost estimate will be determined using the detailed engineering cost methodology specified by the Northern Interior Forest Region.

Refer to the definitions in the Allocated Development section above for more information specific ECAS fields.

## ECAS64 - Log Transportation/Administration

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**ECAS64 - Log Transportation / Administration**

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID
[Stumpage Rate Summary](#)

Licence: A16821
Cutting Permit: 103
Timber Mark(s): FC5103
AND Effective Date: 2014-08-24
OR ECAS ID: 4937
Go

Log Transportation

**Truck Haul**

Primary Haul Method: O - Off-highway \*
Primary Cycle Time: 4.8 hours
Secondary Cycle Time: hours

**Water Transportation**

Water Transportation: SHLK - Shuswap Lake
Tow Distance: 10 km
Dewater/Reload: Yes No

**Special Transportation Systems**

1. Railway:
Truck to Rail Transfers: \*
Rail Transportation:
2. Barge Ferry Used for Truck Haul:
3. Barge Ferry Used for Crew Transportation:

**Administration**

Road Management? Yes No
Woodlot Road Management Cost Estimates: (from IAM table) \$/m<sup>3</sup>
Approved Road Use Charges: 1.50 \$/m<sup>3</sup>
Description:
Camps: \*
Rail Access
Other Access
None

Save

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### Log Transportation Section

Log transportation covers all aspects of log movement from the place of initial loading to the point of appraisal, including truck haul, rail, water and other specialized transportation.

#### Primary Haul Method

The primary haul method is either Highway or Off-highway. Please see Section 3.3.1 of the *IAM* for more information.

#### Primary Cycle Time

Enter the primary cycle time as calculated as per Section 3.5.1 of the *IAM*. Includes time from cutting authority to place of unloading plus return travel time, loading/unloading and unavoidable delay. See Module 3 for more information.

### Secondary Cycle Time

Is when logs must be truck hauled between the dewater and reload site to the closest mill associated with the appraisal point.

### Water Transportation

Water transportation is used when logs must be transported by water between the cutting authority area and the point of appraisal or reload.

### Tow Distance

The one-way tow distance in kilometers that logs will be transported.

### Dewater/Reload

Where the mill infeed is not located on the same lake and the logs must be reloaded and trucked to the point of appraisal.

### Truck to Rail Transfers

When logs are appraised by railway for part of the way between the cutting authority area and the point of appraisal.

### Rail Transportation

An option must be chosen from [Table 3-5](#).

### Barge Ferry Used for Truck Haul

is used when a truck haul road is interrupted by a body of water and the operation of a barge system is feasible to provide the road link for logging trucks.

### Barge Ferry Used for Crew Transportation

when a cutting authority can be served only by water, and daily (operating days only) ferry/barge services are feasible for crew transportation.

## Administration

### Road Management

Will be “yes” (BCTS toggles “no”) where the licensee is obligated to carry out road management. Section 4.4 of the *IAM* identifies those activities that are considered road management.

### Woodlot Road Management Cost Estimates

An estimate of related road management costs will automatically display here if the tenure type identified is a woodlot, and the appropriate TSB has been entered.

Please note this field has been discontinued and GAS will not use the cost in the stumpage calculation. A road maintenance cost for woodlots must be entered manually as a Miscellaneous TOA on the ECAS control screen.

## Approved Road Use Charges

Where road use charges are incurred on roads on Indian Reserves or on private land owned by an arm's length third party and not subject to a lease held by the licensee, their affiliate or an agent or either, may be considered in an appraisal provided there is no lower cost route capable of development through Crown land. See Section 4.4.1 of *IAM*. The licensee must include a "Request for Road Use Charge" form with the appraisal data submission. The form is available at the following link (you must have access to the Southern Interior Share Point site):

[https://spc-flnr.gov.bc.ca/sir\\_rtp/RSI%20Forms/Forms/AllItems.aspx](https://spc-flnr.gov.bc.ca/sir_rtp/RSI%20Forms/Forms/AllItems.aspx)

This request may or may not have been approved by the Regional Executive Director (or designate) prior to submission. The road use charge is \$/m<sup>3</sup>, and a description must be provided. Road use charges usually apply when road management activities are shared between licensees or there is a charge for using a particular road.

## Camps

Where those who work on the cutting authority reside, and travel to and from the camp to the cutting authority area on a daily basis during timber harvesting and hauling operations. A camp is defined as being a permanent structure, having a cookhouse and a bunkhouse, have a full time camp staff, and be outside the support centre listed in Table 3-6.

The licensee submitting the appraisal must incur the costs to establish the camp through capital expenditure or a long term lease agreements; and incur the costs to operate and maintain the camp. There are 3 categories for camp cost estimates, rail access camps; non rail access remote camps; and non-rail other camps.

Please note in ECAS the non-rail remote camp must be added on the specified operations screen.

## ECAS65 – Specified Operations

The screenshot shows the 'ECAS65 - Specified Operations' web application. At the top, there is a navigation bar with 'Application Home' and 'Help'. Below this is a header for 'ECommerce Appraisals (ECAS) - Interior'. A menu bar contains 'Search', 'Submissions', and 'Administration'. Under 'Submissions', there are sub-menus: 'Reference Info', 'Cruise Info / Silv / TTT', 'Tabular Roads', 'Culverts', 'Other Dev.', 'Log Trans / Admin', 'Spec. Ops.', 'BC Timber Sales', 'Attachments', 'Acknowledge.', and 'Control'. The main content area is titled 'ECAS65 - Specified Operations'. It includes a search instruction: 'To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID'. Below this is a search form with fields for 'Licence: A16821', 'Cutting Permit: 103', 'Timber Mark(s): FC5103', 'AND Effective Date: 2014-08-24', and 'OR ECAS ID: 4937', with a 'Go' button. A link for 'Stumpage Rate Summary' is also present. The main form has three sections: 'Description' with a dropdown menu showing 'HDC - High Development Cost', 'Comment' with a text input field, and 'Rate (\$/m<sup>3</sup>)' with a text input field containing '55.55'. There are 'Save', 'Cancel', 'Update', and 'Delete' buttons. At the bottom, there is a footer with links for 'Feedback', 'Disclaimer', 'Privacy', and 'Copyright', and the text 'Ministry of Forests & Range'.

Only the specified operations described in Sections 3.6.1 to 3.6.6 may be considered in an appraisal or reappraisal for non-BCTS cutting authorities.

The High Development cost specified operation (Section 3.6.7 of the *IAM*) is only applicable to BCTS. The reason for this specified operation is to lower the upset rate for competitive sales with higher than average development activities. The equation essentially backs out the average development costs, and then sets a minimum threshold to apply specified operation to only the “higher” development cost sales.

Before a specified operation is used in an appraisal it must be approved by the person who determines the stumpage rate and the supporting information should be attached to ECAS.

### High Development Cost

High Development cost is a specified operation that only applies to a BCTS appraisals where higher than normal development costs are associated with the sale. Please see the *IAM* Section 3.6.7 on how the “high” development cost is calculated. Without excessive development recognized in the MPS equation, this additional high development cost allows for it in the MPS upset rate.

### **ECAS69 – BC Timber Sales**

Application Home
Help

**ECommerce Appraisals (ECAS) - Interior**

Search Submissions Administration

Reference Info Cruise Info / Silv / TTT Tabular Roads Culverts Other Dev. Log Trans / Admin  
Spec. Ops. **BC Timber Sales** Attachments Acknowledge. Control

**ECAS69 - BC Timber Sales**

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID [Stumpage Rate Summary](#)

Licence: A16821 Cutting Permit: 103 Timber Mark(s): FC5103 (+) AND Effective Date: 2014-08-24 OR ECAS ID: 4937 Go

Sale Date:  Sale Term:  year(s)  month(s)  
Decked Volume:  (m<sup>3</sup>) Right-of-way Volume (external to block)  (m<sup>3</sup>) Right-of-way Area (external to block)  (ha)  
Billing Type: Scale-Based (Sawlog only) ☐ Cruise-Based (Stand as a whole) ☒  
Upset\* Rate(\$/m<sup>3</sup>)  Value(\$)   
Check if:  
Upset is MPS70 ☐  
Upset is other than MPS70 ☐  
Upset is < VCU ☐  
Must include a copy of the Executive Director's approval  
Bonus Bid (\$/m<sup>3</sup>)  Offer (\$)

The workflow for BCTS is unique, and involves two steps, or two “passes”.

First Pass – an initial appraisal data submission is submitted to generate the upset stumpage rate in GAS or to verify a rate set at VCU. The region confirms the upset for BCTS.

Second Pass – is where BCTS updates the initial appraisal data submission after the timber sales is sold i.e. Bonus bid / expiry date / attach FS 574.

## ECAS70 – Attachments

Application Home
Help

**ECommerce Appraisals (ECAS) - Interior**

Search
Submissions
Administration

Reference Info
Cruise Info / Silv / TTT
Tabular Roads
Culverts
Other Dev.
Log Trans / Admin
Spec. Ops.
BC Timber Sales
Attachments
Acknowledge.
Control

### ECAS70 - Attachments

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID

[Stumpage Rate Summary](#)

Licence: A16821
Cutting Permit: 103
Timber Mark(s): FC5103
AND Effective Date: 2014-08-24
OR ECAS ID: 4937
Go

If submitting attachments as a single zip file, submit below.  
Please check off below what attachments are contained in the zip file.

Attach File:

☒ Appraisal Map\*
☐ Comparative Cruise Information as per Cruising Manual
☒ Detailed Cycle Time Calculation\*

☒ Cruise - Cruise Compilation (include ASCII files)\*
☐ Amendments to Cruise Compilation
☐ Engineered Estimates Detailed Calculations and Support Information

☐ Percent Rock Calculation
☐ Specified Operations Detailed Calculations and Support Information
☐ Approved Request for a Road Use Change

☐ Extended Amortization Detailed Agreement
☐ Allocated Development Detailed Calculations
☐ BC Timber Sales (FS 574)

☐ Miscellaneous

If attaching individually, submit below.  
\* indicates the minimum attachments for the appraisal, if any of the other attachments apply in this appraisal the attachment is required.

	Electronic (Attached)	Paper Copy to Follow	NA	Attachment		
Appraisal Map*	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Comparative Cruise Information as per Cruising Manual	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Detailed Cycle Time Calculation*	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Cruise - Cruise Compilation (include ASCII files) *	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Amendments to Original Cruise Compilation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Engineered Estimates Detailed Calculations and Support Information	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Percent Rock Calculation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Specified Operations Detailed Calculations and Support Information	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Road Use Charges (copy of approved document)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Extended Amortization Detailed Agreement	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Allocated Development Detailed Calculations	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
BC Timber Sales (FS 574)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save
Miscellaneous	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Choose File	No file chosen	Save

Feedback
Disclaimer
Privacy
Copyright

Ministry of Forests & Range

There are two ways the electronic files can be attached.



The top half of the screen is used if a single zip file is submitted having multiple attachments. Where this option is chosen, the attachments contained in the zip file must be checked from the list below the file identifier.

The bottom half of the screen is used when attaching individual files according to attachment type.

In both cases asterisks (\*) indicate the minimum attachments for the appraisal, which are an Appraisal Map, Detailed Cycle Time Calculation and Cruise – Cruise Compilation. However all information required to support the appraisal data submission must be provided, including the cruise compilation ASCII data files and CSV files.

The Appraisal Map(s) should contain, at a minimum, the information listed in Appendix IV (Map Content).

The maximum size for any attached file is 10 MB. Both a zip file and individual files can be attached.

## ECAS61 – Acknowledgements

Application Home

**ECommerce Appraisals (ECAS) - Interior**

Search
Submissions
Administration

Reference Info
Cruise Info / Silv / TTT
Tabular Roads
Culverts
Other Dev.
Log Trans/Admin
Spec. Ops.
BC Timber Sales
Attachments
Acknowledge.
Control

### ECAS61 - Acknowledgements

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID

**Stumpage Rate Sur**

**License:** A16821
**Cutting Permit:** 103
**Timber Mark(s):** FC5103
(+ )
**AND Effective Date:** 2014-08-24
**OR ECAS ID:** 4937
Go

This Appraisal Data Submission contains, as of this date, truthful information on the timber to be harvested, site conditions, harvesting, development, and silviculture plans and other information, all prepared according to the *Interior Appraisal Manual*.

If the R.P.F./R.F.T. is not a staff member of the Licensee, then the:

**Licensee Representative Is:**

**Name:**

**Middle Initial**

**Last Name**

**Phone:**

**Fax:**

**Email Address:**

To notify multiple licensee representatives, enter email addresses separated by semicolons.

Check if appropriate

☒ I certify that there have been no changes, to the data elements, specified operation or detailed engineering methodologies, or amendments to the cutting authority since the last appraisal or reappraisal.

☐ I certify that there are less than 2 000 cubic metres of merchantable timber remaining on the cutting authority area and that no timber is expected to be harvested during the next year. I am requesting that the current appraisal be extended.

Select one of the options below

☒ I certify I personally completed the work described herein.

☐ I certify that the work described herein fulfils standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.

☐ I certify that I have reviewed this document and, while I did not personally supervise the work described, I have determined that this work has been done to the standards expected of a member of the Association of British Columbia Forest Professionals.

**Registered Professional Forester/Registered Forest Technologist:**

**R.P.F./R.F.T. Name:**

**R.P.F./R.F.T. #:**

**Registered Forest Technologist:**
☐

**Phone:**

**Fax:**

**Email Address:**

The information contained in this package may be released under the *Freedom of Information and Protection of Privacy Act*.

### Licensee Representative

This information is required when another person is submitting the appraisal data submission on behalf of the licensee. If the person making the submission is not a staff member of the licensee, then these fields may be filled in. Status change notifications will be sent to the licensee representative with the entered comments.

Check if appropriate - Checked if either statement applies to the appraisal data submission. Please note this section is applicable to policy related to “annual reappraisals” and is no longer relevant. However, it is in the process of being redesigned to accommodate new policy for “changed circumstance certification” introduced July 1, 2014.

Select one of the options below - This section represents the signing certification statements from the bylaws of the Association of Forest Professionals (ABCFP). The submitting forester must check one of the three options.

### Registered Professional Forester/Registered Forest Technologist

Fields in this section will automatically be filled by the system based on the user’s ECAS identification.

By submitting the appraisal the forest professional is electronically signing and sealing the Appraisal Data Submission, and certifying that it contains accurate information on the timber to be harvested, site conditions, harvesting, development, silviculture plans and other information prepared according to the *Interior Appraisal Manual* as of the submission date.

Please note there is an opportunity for licensee submitters to add additional comments to this screen. It is often used to communicate unusual situations and provide rationales.

## ECAS62 – Control

Application Home
Help

**ECommerce Appraisals (ECAS) - Interior**

Search
Submissions
Administration

Reference Info
Cruise Info / Silv / TTT
Tabular Roads
Culverts
Other Dev.
Log Trans / Admin
Spec. Ops.
BC Timber Sales
Attachments
Acknowledge.
Control

**ECAS62 - Control**

To retrieve an existing appraisal enter Timber Mark and Effective Date, or ECAS ID
[Stumpage Rate Summary](#)

Licence: A16821
Cutting Permit: 103
Timber Mark(s): FC5103
AND Effective Date: 2014-08-24
OR ECAS ID: 4937
Go

Comments
TOA Eligible: ☒ Yes ☐ No

Forest District

Was the Appraisal Data Field Checked: ☐ Yes ☒ No  
Was this CP Check Cruised: ☐ Yes ☒ No  
Appraisal Data Submission has been validated against FTA: ☒

Silviculture Levy \$ 0
Development Levy \$ 0

Data Submission Reviewed By
Email
Date Submitted
Date Received

Send to Region
Clarify
Send with Issue
District Recall

Forest Region

Adjust Quarterly: ☒ Yes ☐ No
Number Of Issues

MPS/CVP Differential: 25.00 \$m<sup>3</sup>
TOA Miscellaneous Cost: 50

Reviewed by
Email
Date Sent to Region
Date Verified
ECAS Status

Test Head Office, Admin
ecas01@live.ca
RTN

Clarify
Return to District
Region Recall
Verify

Save

Feedback
Disclaimer
Privacy
Copyright
Ministry of Forests & Range

This screen is divided into two sections. (Toggle “save” before start) The top half of the screen is for the district user. The bottom half is for the regional user.

### Comments

Is used if a statement is required regarding the content of this form or the submission as a whole.

### TOA Eligible

Indicates whether or not the ADS receives the Tenure Obligation Adjustment depending on tenure type. BCTS toggles “no”.

### Forest District

It is necessary for the district user to indicate whether the following have been completed or not (yes or no):

- Was the Appraisal Data Field Checked – was the data verified by district staff members by visiting the cutting authority site.
- Was this CP Check Cruised – indicates whether or not a check cruise has been performed by FLNRO staff.

### Appraisal Data Submission has been validated against FTA

Indicates whether or not the tenure data has been checked against the data in FTA for the timber mark.

### Silviculture Levy

Refer to Section 5.3 of the *IAM*.

### Development Levy

Refer to Section 5.3 of the *IAM*.

### Data Submission Reviewed By and Email

Name of the person who is reviewing the ADS in the district.

### Date Submitted

Date that the ADS was submitted to the District i.e. the date the licensee clicks the Submit button in the Acknowledgements screen.

### Date Received

Date the ADS was received in the District Inbox.

### Send to Region

This button will be clicked once the district has determined the ADS is complete and ready to be forwarded to region.

### Clarify

Where the district requires more information, clicking this button will change the status of the ECAS submission to “District Requested Licensee Clarification”. The submission will be returned to the licensee, who is then able to make any appropriate changes or add any required documentation to the ADS (depending on the nature of the district information request).

### Send with Issue

Where the district has reviewed the submission but is referring a question of policy application to the region.

### District Recall

Where the district recalls the submission from the licensee. This can only be done when the ECAS status is DCL (District Requested Licensee Clarification).

### Forest Region

#### Adjusted Quarterly

Is dependent on the license. If yes is clicked, then the stumpage rate will be adjusted quarterly. No is clicked in the case of timber sales, and/or where the rate is fixed for the term of the license and all extensions.

#### MVI Eligible

Automatically set to no by ECAS under the following conditions:

- If the Rate Calculation Method from the Reference Information is CVP; and
- The BCTS screen is not filled in; and
- The File Type is one of A01, A02, A03 (where  $AAC > 10,000 \text{ m}^3$ ), A06, A30, A41. This is not a user defined field (the criteria is applied internally in GAS) and will be discontinued on the ECAS screen at the earliest opportunity.

#### Number of Issues

Regional use if needed.

#### Data Submission Reviewed by and Email

Name of the person who is reviewing the ADS in the region.

#### Date Sent to Region

Date the district sends the ADS to the region for review. The date the district user clicks either Send to Region or Send with Issue.

#### Date Verified

Date the ADS is transferred to GAS by the region user. When the region user clicks Verify.

#### ECAS Status

Current ADS status in ECAS.

#### Verify

Clicked when the region has determined that the information in the ADS is ready for stumpage rate determination in GAS.

#### Clarify

Clicked when the ADS is returned to the RPF/RFT who submitted it, including questions about which items require clarification.

### Return to District

Clicked when the ADS is returned to the district for further clarification.

### Region Recall

Click to recall the submission from the licensee. This can only be done when the ECAS status is CLR (Clarify for Region).

## Resolving common issues with ECAS

ECAS was developed to address concerns about the quality of ADS and bring the ADS process into the electronic world. Overall ECAS has been very successful; however, Submitters and Reviewers still express concerns about the ADS process. Suggested ways to resolve most of the common issues are listed below:

1. Incorrect information submitted, e.g. TSA Block, Biogeoclimatic zones, average vol/tree, tree to truck, cruise data, effective date, applicable volume, etc.
2. Missing information not submitted, e.g. soil moisture on tab roads, no supporting data for ECEs, etc.
3. Information submitted not to standard required, e.g. map info, cruise info, cruise standard error, etc.
4. Information submitted has incorrect calculations, e.g. partial cut calculations, rounding errors, calculation errors, cycle time speeds, etc.

Resolutions:

- Peer review before of ADS before ECAS submission;
  - Training of inexperienced submitters;
  - Checklists.
5. Clarity/Understanding/Difference of Opinion, e.g. Adding Right of Way into Silviculture area, non-eligible costs in ECEs, maintenance costs, trending ECE costs, section 2.4 *IAM* correctable errors, etc.

Resolutions:

- Peer review before of ADS before ECAS submission;
  - Training of inexperienced submitters;
  - Checklists;
  - Discuss with district/region TP staff before ECAS submission.
6. *IAM* Amended during submission of information

Resolutions:

- Limit amendments to specific times of year;
- Guidance and training accompany amendment.



# **Module 5**

## **Miscellaneous Timber Pricing**

## Miscellaneous Timber Pricing

Chapter 6 of the *Interior Appraisal Manual (IAM)* outlines procedures for determining stumpage rates for minor tenures, smaller volumes and specific situations or forest products. While most of the procedures involve the use of tabular stumpage rate information rather than a full appraisal there are instances where a full appraisal is still an option. Generally, with the exception of sudden and severe damage or minister's direction, the stumpage rates are either fixed for the term and all extensions or are re-determined annually. Module 5 provides an explanation of each section:

### Coniferous Average Sawlog Stumpage Rates by Forest Zone and Species

The stumpage rates in Table 6-1 are derived from FLNRO billing history data over a 12 month period ending one month prior to the date they are updated in the *IAM*. The rates in the table are the average coniferous sawlog billed stumpage rates for the species and zone from all "fully appraised" cutting authorities including BCTS in the period (refer to the definition of "fully appraised" in the *IAM*).

These rates include an average cost estimate for all of the operating costs usually found in full appraisals, including forest management administration (overhead), road development and maintenance and, silviculture.

The same dataset is used for all of the chapter 6 tables. Table 6-3 is a one year dataset from April 1 of the previous year to March 31 of the current year, with a one month lag (effective on May 1) and the other tables are updated twice a year on May 1 and November 1. It is based on conifer sawlog (grade 1 & 2) only, fully appraised & confirmed marks, billed to crown land and does not include cruise based or Woodlots (most are on tabular rates). The average rate is calculated by the total value divided by the total volume based on a geographical unit as identified in the table.

### Community Forest Agreements and Woodlot Licences

There are specific sections for both Community Forests and Woodlot Licence cutting authorities. Cutting authorities for these tenures including their associated road and blanket salvage permits are priced using these tables. These tables are derived by applying a percentage reduction to the Table 6-1 value. The values indicated in the tables are the rates with the reduction already applied. Stumpage rates for existing cutting authorities under these tenures are re-determined annually on August 1.

### Incidental Conifer in Deciduous Leading Stands

In any cutting authority where the total volume of all deciduous species to be harvested is greater than 70% of the estimated Total Net Cruise Volume to be harvested from the cutting authority area, the stumpage rate for each coniferous species is derived from Table 6-1. A silviculture levy may also be applied where the Crown is responsible for basic silviculture. The rates are re-

determined annually on June 1. The stumpage rate may also be determined through a full appraisal.

### **Cutting authorities with 5000 m<sup>3</sup> or less Volume**

This section provides the procedures for determining stumpage rates for cutting authorities (excluding CFA's and woodlots) with small volumes and includes specific criteria for the procedures to be used. The option of a full appraisal remains available. The stumpage rate is fixed for the term and all extensions.

If the licensee is not responsible for silviculture the stumpage rates are adjusted by adding a basic silviculture cost for the species and region or if the licensee is not responsible and the Crown will incur silviculture costs, a silviculture levy is added equal to the district manager's or timber sale manager's estimate of the silviculture costs to be incurred by the Crown.

### **Competitively Awarded Forestry Licences-to-cut (FLTC's)**

This section outlines procedures specific to this tenure in a competitive setting. There are provisions for specific situations that arise as part of the competitive process and the upset stumpage rate is approved by the regional executive director (RED).

#### **Section 6.2.1 FLTC's Awarded for a Specific Purpose**

This section applies to competitively awarded FLTC's for the specific purposes outlined in the section. The upset stumpage rate is approved by the RED and cannot be less than the district manager's cost to prepare the timber for sale.

### **Road Permits**

This section outlines the procedures for determining the stumpage rates for road permits.. It does not apply to Community Forest Agreements, Woodlot Licences except as provided for in Section 6.1.2(4), Research Forests as noted in Table 6-7 and CRA's. The procedure for BCTS is indicated in the section. Generally, the road permit stumpage rate is the licensee's average billed sawlog stumpage rate from the same billing data that is used for the May 1<sup>st</sup> update to the other Chapter 6 tables.

If there is less than 500 m<sup>3</sup> billed sawlog volume in that database for the licensee's licence then the tabular rate is applied from Table 6-3 for the smallest unit in which the cutting authority is or will be located. The stumpage rate for a BCTS road permit is the same as the stumpage rate for the section 20 TSL that gave rise to that road permit.

### **Salvage Timber Stumpage Rates**

This section outlines procedures for determining stumpage rates for damaged timber (Table 6-4), post-harvest material (Table 6-5), and blanket salvage permits (Table 6-4), all of which are defined in the section along with the criteria that applies before using the procedures.

Generally the stumpage rate is determined using the appropriate table in the section (6-4 and 6-5).

The average coniferous sawlog stumpage rates for species and zone in these tables are derived by applying a percentage reduction to the table 6-1 rates.

Table 6-4 is used to determine stumpage rates for salvage of damaged timber and blanket salvage permits.

Table 6-5 is used to determine stumpage rates for salvage of post-harvest material.

### **Decked and Partially Harvested Timber for a Cutting Authority Other than a Cutting Authority Entered into Under a BCTS Licence**

This section outlines procedures for determining stumpage rates for “decked timber” or “partially harvested” timber both of which are defined in Chapter 1 of the *IAM*. The procedures for determining the stumpage rate or the upset stumpage account for how long the timber has been sitting and whether the timber will be sold competitively or sold without competition.

When this timber has been advertised and no applications are received or when the RED does not anticipate that applications will be received due to market conditions or timber profiles, the RED can approve an upset stumpage rate. The rate cannot be less than the district’s variable cost to prepare the timber for sale.

Where a non-competitive or competitive forest licence to cut applies to both decked timber and partially harvested timber, the upset stumpage rate will be calculated the same as if it were all decked timber.

Where the stumpage rate or the upset stumpage rate has been determined using this section, the total stumpage rate shall be fixed for the term of the cutting authority and all extensions.

### **Miscellaneous Stumpage Rates**

This section consists of [Table 6-6](#) and identifies the stumpage rates for; miscellaneous species, special forest products, specific salvage or area clearing situations.

### **Specific Licences to Cut**

This section outlines the procedure for determining the stumpage rate for Master licences to cut, Occupant licences to cut or forestry licences to cut that are: issued under section 47.6(3) of the *Forest Act* in conjunction with an activity funded out of the BCTS account, or (ii) issued in conjunction with a works contract other than BCTS, or (iii) issued for a fence line or protection of a fence line administered under the *Range Act*. The stumpage rate is generally an average coniferous sawlog stumpage rate from various pools of data beginning with the smaller of the District, TSA or Region plus basic Silviculture costs. There are exceptions to this procedure noted for specific circumstances.

### **Controlled Recreation Areas**

This section outlines the procedures to determine stumpage rates for a very specific type of tenure, a Controlled Recreation Area, for operations such as large ski resorts, backcountry commercial recreation operations, etc. The Resort Development Branch of FLNRO manages these tenures and has authority to calculate the stumpage rate under section 1.2.1 of the *IAM*. The stumpage rate is either the average sawlog rate approved by the director for the quarter or alternately the stumpage rate may be determined through a full appraisal.

### **Cruise Based Stumpage Calculations**

This section outlines the minister's criteria as to when a cutting authority has to be cruise based. Cruise based means the stumpage billed for the cutting authority will be based on the volume information provided by a cruise of the timber before it is cut, instead of a scale of the timber after it is cut. Generally if the timber on the cutting authority area is comprised of 35% or more red and grey Mountain Pine Beetle (MPB) attacked Lodgepole pine, then the cutting authority must be cruise based. If it is less than that it can still be cruise based if approved by the RED or the Executive Director of BCTS.

### **Section 103(3) of the *Forest Act***

For unauthorised harvest, the procedures approved by the Director are used to calculate fixed stumpage rates.

## Requests for Miscellaneous Stumpage Rates

For all cutting authorities requesting a tabular rate using one of the tables in Chapter 6, Tables 6-1, 6-2, 6-3, 6-4, 6-5, 6-6 and for Section 6.8 of the *IAM* (submitted by the Timber Administration Section of the Resort Development Branch if regional staff are processing on their behalf) an *Interior Stumpage Rate Request Form* (Short Form), must be completed and submitted to the appropriate forest region.

The Stumpage Rate Request Form and instructions to users are located on the South Area's SharePoint website. Please use the newest version of the form and ensure that all persons who prepare, review and forward the short forms are made aware of these changes, including the district resource clerks, and any consultants and licensees who complete these forms.

[https://spc-flnr.gov.bc.ca/sir\\_rtp/RSI%20Forms/Forms/AllItems.aspx](https://spc-flnr.gov.bc.ca/sir_rtp/RSI%20Forms/Forms/AllItems.aspx)

It is also located on the North Area's website.

[http://www.for.gov.bc.ca/rni/NIFR\\_Revenue/#fifth](http://www.for.gov.bc.ca/rni/NIFR_Revenue/#fifth)


The cutting authority must be issued before the request is completed and rates issued by timber pricing staff at the region. If levies or bonus bids are applicable to specific species and grades, they must be indicated.

A professional signature and seal and the signature of the district review officer are required on all cutting authorities with the exception to Blanket Salvage Permits, Road Permits, Community Forest Agreements and Woodlot Licences.

Where the district review officer has completed the form on behalf of the licensee, only the signature of the district review officer is required. However, in this case, the district review officer accepts full responsibility for the content of the form and must be an RFT or RPF.

Please refer to the detailed instructions included with the short form prior to contacting the regional timber pricing staff for more information.

Figure 6: Sample of Interior Stumpage Rate Request Form (Short Form)

Interior Stumpage Rate Request Form				
REFER TO ATTACHED PROCEDURES DOCUMENT WHEN COMPLETING THIS FORM				
Licensee		Licence/Cutting Permit		
Forest District		Timber Mark		
Forest Zone		Area (ha)		
Timber Supply Area		Effective Date (Ministry Staff)		
Competitive Cutting Authority?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Expiry Date (Ministry Staff)		

IAM Sec.	Rate Calculation Method (Check 1 Box Only) Complete Silviculture and/or Bonus Section if Applicable	
<b>Non-adjusting - redetermined annually</b>		
6.1.1	Community Forest Agreement – August 1 (all cutting authorities)	<input type="checkbox"/>
6.1.2	Woodlot Licences – August 1 (CP, BSP or RP)	<input checked="" type="checkbox"/>
6.1.3	Deciduous Leading Rate – June 1	<input type="checkbox"/>
6.3.1	Road Timber Mark – June 1 (Including Woodlot Road Timber Marks with an eligible ERA) If Sec. 6.3(5) - Associated Licence	<input type="checkbox"/>
6.3.2	Blanket Salvage Cutting Permit – June 1	<input type="checkbox"/>
6.7	Licences to Cut-Non-Forestry Tenures – June 1 Table 6-3 + basic silviculture cost for the forest region. Type: <input type="checkbox"/>	<input type="checkbox"/>
6.8	Controlled Recreation Areas (CRAs)- Anniversary Date	<input type="checkbox"/>
<b>Fixed for term and all extensions</b>		
5.1.1 (4)	BCTS Decked or Partially Harvested Timber TSM Requested Rate	<input type="checkbox"/>
6.2 (1)	Average Sawlog Stumpage Rate - Table 6-1	<input type="checkbox"/>
6.2 (2)	Intermediate salvage If VCU, attach approved form	<input type="checkbox"/>
6.2.1	FLTC for Specific Purposes (No Volume Limit)	
(1) (a)	FLTC awarded to highest bidder. Community wildfire protection, or removing damaged timber from plantations or natural stands (attach approved VCU form)	<input type="checkbox"/>
	Utilizing post harvest material in landings or at roadside after waste assessment done (attach approved VCU form)	<input type="checkbox"/>

Volume Estimates	
Total Coniferous Volume.	<input type="text"/> m <sup>3</sup>
Total Deciduous Volume.	<input type="text"/> m <sup>3</sup>
In Comments Box, describe how the volume estimate was derived (refer to Procedures page)...	

Silviculture (refer to attached procedures)	
Silviculture Responsibility: Crown: <input type="checkbox"/> Licensee: <input type="checkbox"/> n/a: <input type="checkbox"/>	
Apply Silviculture Levy: Grades 1 & 2: <input type="checkbox"/> Grade 4: <input type="checkbox"/> Grade 6: <input type="checkbox"/> Deciduous: <input type="checkbox"/>	
Silviculture Levy: \$ <input type="text"/> per m <sup>3</sup>	

Bonus Section (attach signed Tender form)	
Bonus Offer: <input type="checkbox"/> Bonus Bid: <input type="checkbox"/>	
Amount: \$ <input type="text"/> or <input type="text"/> /m <sup>3</sup>	
Apply bonus bid: Grades 1 & 2: <input type="checkbox"/> Grade 4: <input type="checkbox"/> Grade 6: <input type="checkbox"/> Deciduous: <input type="checkbox"/>	

Authority	
License Representative	

Comments	
<input type="text"/>	

Regional Revenue Section Employee	
<input type="text"/>	
Signature	
<input type="text"/>	
Date	
<input type="text"/>	





# Appendix

## **Links to Additional Information**

### **Timber Pricing Branch**

<http://www2.gov.bc.ca/gov/content/industry/forestry/competitive-forest-industry/timber-pricing>

### **The Southern Interior Area Regional office**

[https://spc-flnr.gov.bc.ca/sir\\_rtp/default.aspx](https://spc-flnr.gov.bc.ca/sir_rtp/default.aspx)

Note: For access to the SharePoint site, please contact pricing staff.

### **The Northern Interior Area Regional office**

[http://www.for.gov.bc.ca/rni/NIFR\\_Revenue/](http://www.for.gov.bc.ca/rni/NIFR_Revenue/)

### **Association of BC Forest Professionals**

<http://www.abcfp.ca/>

### **Forest Appeals Commission**

<http://www.fac.gov.bc.ca>