

BEST PRACTICES GUIDE



Timber Harvesting Contracts: *A Guide to Replacing, Implementing and Monitoring*

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Interior Lumber
Manufacturers' Association



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This document is a general guideline and it is strongly recommended that legal and other professional advice be obtained to complement and clarify this Guide.

Acknowledgments

This Guide was developed through a consensus development process and is endorsed by the following licensee and contractor associations:



- B.C. Council of Forest Industries
- Truck Loggers Association
- Interior Logging Association
- Interior Lumber Manufacturers Association
- Northwest Loggers Association
- Ministry of Forest Lands and Natural Resource Operations and Rural Development

This process brought together volunteers representing varied viewpoints and interests to achieve a reasonable consensus to develop a general guideline for industry use. The content of this guideline does not represent the views of any particular association.

1.0 Introduction

The majority of timber harvesting in British Columbia is conducted under contractual arrangements between companies holding the rights to harvest timber (licensees) and companies that conduct the timber harvesting operations (contractors).

In the Interior of the province, almost 100% of the timber harvesting is accomplished under contract, whereas timber harvesting on the Coast is done under a mix of contracting and company crews.



For both the Coast and Interior timber harvesting is accomplished under various forms of contracts, including large and small contracts and replaceable and non-replaceable contracts.

1.1 Contractor Sustainability Review

The multi-phase logging contractor sustainability review was launched by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (the Ministry) in January 2017 to explore the overall competitiveness of logging contractors.

The initial phase consisted of an economic assessment and review of the contracting sector to develop baseline information and identify economic drivers within the sector. The findings were combined with the economic assessment to produce recommendations that would result in both enhanced sustainability and competitiveness for both contractors and licensees. Common themes that emerged from the report were the need for better data and better communications.

The final phase facilitated conversations between contractors and licensees to identify where there was consensus on the recommendations and then make final recommendations for implementation. It was largely found that the most financially sustainable top 25% of contractors and licensees already engaged in some level of information sharing, mutual planning and negotiated rate models. The report recommended that government assist contractors and licensees in developing a best practices guide that would foster improved and respectful business relationships.

1.2 Purpose of this Guide

The purpose of this guide is to identify the best practices to be used for:

1. Replacing timber harvesting contracts.
2. Planning timber harvesting operations.
3. Calculating and negotiating rates for timber harvesting operations.
4. Monitoring and reviewing timber harvesting operations.

The benefits from using this Guide in a consistent manner include:

1. Improving relationships between contractors and licensees.
2. Improving sustainability for both licensees and contractors; and
3. Avoiding formal contract disputes.

If the parties are not able to agree on various components of a replaceable contract then formal dispute resolution processes specified in the THCSR can be engaged. These dispute resolution processes can be time consuming, expensive and negatively impact ongoing relationships between the parties to long-term contracts. Note that any of the dispute resolution requirements can be waived or amended under Section 52 of the THCSR.

Formal dispute resolution processes under the THCSR¹

Rate Dispute

Amount of Work Dispute

Forestry Revitalization Proposal Dispute

Mediation and Arbitration Process

1.3 Replaceable Contract

The focus of this Guide is on replaceable timber harvesting contracts (replaceable contracts). A replaceable is a contract to carry out one or more phases of a timber harvesting pursuant to certain licences under the *Forest Act* (the Act).

A replaceable contract must also meet a number of definitions included in the Timber Harvesting Contract and Subcontract Regulation (THCSR). These include:

1. Meeting the definition of a phase of timber harvesting (i.e. felling, bucking, yarding, hauling);

¹ The THCSR includes different process for interior and coastal operations.

2. Operations being conducted under certain forms of Forest Act agreements (tree farm licence; forest licence and timber licence); and
3. Meeting the specified time frames.²

The contract itself must identify that it is a replaceable contract. Replaceable contracts are legacy documents and there is currently no opportunity for any additional replaceable contracts to be created.

1.4 Non-Replaceable Contract

A significant part of timber harvesting in the province is done under non-replaceable contracts. While the focus of this Guide is intended to cover replaceable contracts many of the principles and practices that are identified could be applied to negotiating, implementing and monitoring non-replaceable contracts.

1.5 Timber Harvesting Subcontract

In addition, many contractors enter into sub-contracts with third parties for certain phases of timber harvesting (i.e. falling; loading; hauling). In fact, a significant part of the THCSR speaks to the rights and obligations associated with sub-contracts.

Similar to non-replaceable contracts, many of the principles and practices in this Guide could also be apply to negotiating and implementing sub-contracts.

Use of this Guide is voluntary and not a legal requirement. However, the parties are legally bound to follow obligations included in the Forestry Legislation including the Forest Act and THCSR.

² The full legal definitions of a contract, replaceable contract and timber harvesting phases can be found in the current THCSR at the following website: [THCSR](#)

2.0 Background

Overview of the Legal Framework

The Act and the THCSR establish in legislation the framework for entering into, replacing and implementing replaceable contracts.

2.1 *Forest Act*

The Act enables the government to grant rights to harvest Crown timber under a wide variety of licences. The different forms of licences range from tree farm licences and forest licences to smaller community based operations and permits for cutting of firewood for personal use.



Over the years, the obligation for certain licensees to conduct a specified percentage of harvesting operations under a contract as opposed to company hired crews was included in the legislation. This requirement is commonly referred to as the “contractor clause”. This requirement dates back to the 1940 and 50s. The Act requires 50% of harvesting operations under a tree farm licence to be conducted under contracts. However for forest licences the actual requirement is included in the licence itself and may vary depending upon policy in place when the licence was issued.

The forestry legislation in British Columbia significantly influences the content and requirements of these contracts, granting rights and imposing obligations on both licensees and contractors.

The government’s goal for including these requirements was and continues to be to sustain contractors while ensuring licensees are able to remain competitive in the global market.

2.2 Timber Harvesting Contract and Subcontract Regulation

The THCSR requires some contracts to be replaceable and includes specific requirements for these types of licences. The THCSR is somewhat unique in that it requires the rights and obligations to be included in the contracts themselves. It specifies a standard set of provisions that must be included in a replaceable contract, unless the parties to the contract agree otherwise to the extent permitted by the THCSR. The Ministry does not apply administrative remedies for non-compliance with the Regulation and disputes are resolved through either established dispute resolution processes or otherwise agreed to processes.



3.0 Importance of Good Relationships

Like all other contracts, a replaceable contract is a legally binding document between a contractor and a licensee that governs the rights and duties of the parties. If the contractor is meeting the obligations of the replaceable contract, the licensee is obligated to offer the contractor a new contract at the specified time.

Similar to replaceable licences, replaceable contractor are also referred to as “evergreen” contracts. Given the perpetual long-term nature and the interdependency of the parties in regard to these contracts it is very important that licensees and contractors develop and maintain good relationships.

Both parties have goals and objectives to meet in order to remain healthy and profitable. Licensees need a timely and steady supply of logs to meet commitments to processing facilities, trading partners and other clients. Contractors want to be successful and maintain financially healthy businesses. Both have goals of providing employment and community stability in a safe manner.

Over the years, the benefits of strong and healthy relationships have been recognized and the following saying has been repeated many times *“licensees and contractors are in the same boat and need to be rowing in the same direction”*.



Successful contract relationships require both parties to look for positives that benefit both parties in every area while achieving a fair and equitable agreement. A signed contract that benefits both parties will provide a firm foundation to build a long-lasting relationship. A strong healthy relationship will also attract investment.

The following general principles should be followed to develop good relationships:

- Ensure worker safety is a high priority.
- Understand the need to develop First Nations relationships and business involvement.
- Develop open, transparent communication that builds trust.
- Strike a balance and view the other party as a partner.
- Facilitate informed dialogue to reduce costs and improve productivity.
- Learn and understand each other's business (i.e. contractor equipment; permitting processes; mill requirements).
- Include a willingness to negotiate agreements both parties can live with.
- Do not employ a take it or leave it attitude.
- Strive for longer-term planning horizons (discussed in Part 6).
- Commitment to recognize and share benefits during the good times as well as recognizing issues during difficult times.
- Strive for improvement through innovation.
- Recognize the need to evolve and adapt to changing situations (i.e. logging on steeper slopes; second growth).
- Recognize opportunities and efficiencies through sub-contracting.
- Commit to having regular meetings (quarterly) to provide updates.
- Understand that certain information to be shared will be of a proprietary nature.

There are many resources available for developing relationships. The following websites are a few examples:

- <https://www.thebalancesmb.com/top-contract-negotiation-best-practices-2533813>
- <https://medium.com/swlh/10-tips-for-contract-negotiations-ef65ec6cdcd>

4.0 Contract Replacement

4.1 Background

The THCSR includes specific requirements regarding the term of replaceable contracts, the terms generally ranges from 2 to 5 years. The THCSR requires that the licensee must offer the contractor a replacement contract at least 3 months prior to termination of the contract.³

New contracts being offered are required to be substantially on the same terms of the contract it is replacing. Replacing a contract provides the opportunity to update the contract to reflect changes to legislation (Acts and regulations) as well as other essential business requirements (i.e. certification systems; safety standards and environmental concerns).

The replacement process should involve a joint strategic review of the contract. Items to review should include:

- How did operations go over the latest term of the contract?
- Were operations were successful, what wasn't?
- What are the business predictions for the next term of the contract?
- Review of contractors equipment inventory future requirements.
- Potential changes to operations (i.e. due to market predictions).
- Emerging trends and challenges

It may also be an appropriate time to review the compliance with amount of work (see section 5.3).

4.2 Contract Content

Most licensees (and contractors) have their own well established processes and contract forms or templates for replacing contracts.

Standard Provisions and Exceptions

The THCSR identifies a set of “standard provisions” that are to be included in a replaceable contract. A replaceable contract must contain either the standard provision set out in the THCSR or a different provision agreed to by the parties that is consistent in all material ways with the standard provision.

³ The THCSR provides for the parties (if in agreement), to not replace a replaceable contract.

The THCSR also allows the parties to a replaceable contract to agree to waive any of the standard provisions. The standard provisions for contracts cover the following subject areas:

- Assignability of Replaceable Contracts
- Resolution of Disputes
- Replacement Contract
- Changes
- Termination
- Amount of Work
- Volume Dependant Contract
- Dedicated Phase Contract
- Volume Independent Contract
- Experiments
- Differing Amount of Work
- Events Beyond Control
- Rate Dispute
- AAC Reduction Proposals
- Termination Due to Work Reduction
- Licence Transfer
- Licence Subdivision
- Licence Consolidation

The standard provisions for replaceable contracts and subcontracts are contained in Schedules 1 through 22 located at the end of the THCSR. Section 52 of the THCSR allows the parties to waive or amend standard provisions.

Additional Clauses

Comprehensive replaceable contracts commonly include additional clauses that cover the following components:

- Name /addresses
- Recitals (non-binding)
- Definitions
- Schedules
- Contract term
- Contractor's obligations
- Subcontracting
- Safety Requirements
- Road Use and Maintenance
- Equipment Requirements
- Amount of work
- Subcontracting provisions
- Payment rates; schedules and timing
- Representations and Warranty
- Liability and Indemnification
- Application of applicable laws
- Privacy, Security and Confidentiality
- Material and Intellectual Property
- Records and Reports
- Audit requirements
- Insurance requirements
- Notification requirements
- Fire prevention and suppression obligations
- Change management (Force Majeure)

- Non-compliance
- Termination
- Dispute Resolution
- Interpretation
- Execution and Delivery

4.3 Amount of Work

Standard provisions under the THCSR address the amount of work that the contractor is to perform; reductions of the amount of work and how the amount of work is to be expressed.

In many cases, the amount of work is specified as a percentage of the total amount of timber harvested under the licence in a given year (full phase), or for the amount of work for a specific type of work of the contract (phase contract). The amount of work can also be specified as a volume of wood to be harvested (m³). In addition one or more contracts can be grouped and be applicable to one or more licences in what is referred to as a “fibre basket” approach.

Contractors and licensees should be fully aware and understand the flexibility the Regulation provides in regard to the Amount of Work that is allocated.

Given the complex and cyclical nature of the forest products industry, the THCSR provides the licensee some flexibility to comply with the amount of work requirement over time. The licensee can provide an amount of work in a particular year that is different from the specified amount of work if the reason for doing so is valid. However, the licensee must provide at least 95% of the total amount of work over an established work compliance period. This period is typically the cut control period for the licence to which the contract pertains.

4.4 Sources of Information for Reconciling Work Allocated

Sources of Information for reviewing and reconciling compliance with the amount of work requirement include:

1. *Corporate logs and reports from licensee and contractor*

Most licensees and contractors maintain daily, weekly and monthly records of the volumes delivered. These reports should be the main source of information in regard to tracking of volumes delivered.

2. Timber Harvesting Billing System

The Harvest Billing System (HBS) is a government system that is used to track the volumes that are scaled and billed as required. The HBS can be accessed by the public and a variety of reports can be relatively easily generated based on licence number, timber mark or block number. (See Appendix A).

3. Cut Control Statements

As mentioned above, the amount of work is usually stated as a percentage of the overall volume of wood harvested under the licence in a given year.⁴ Therefore it is important to know how much volume was harvested under the licence during a given year.

One source of information is the formal cut control statement that is sent to the licensee from the Ministry for each calendar year. The cut control process is how government ensures that the volume of timber harvested under such an agreement is consistent with the agreement's harvesting rights. Timber volumes harvested under each agreement are tracked and reported annually.

The licensee could share the applicable cut control statement with the contractor upon request. Alternatively the contractor can apply to the Ministry under the *Freedom of Information Act* to receive a copy.

The template for cut control statements along with other references regarding cut control can be found in Appendix B.

Note: A licensee has significant flexibility when exercising their rights to harvest timber. For example, an agreement with an annual allowable cut provides harvesting rights on an annual basis, however, cut control rules allow the licensee to harvest future rights during a given year or to carry forward unharvested rights provided the harvest volumes stay within time and volume limits specific to the agreement. In addition, under certain circumstances, volumes harvested under one licence can be transferred to a different licence.

Therefore it is important to know and understand cut control rules and implications when using cut control statements to assess volumes harvested under a licence and a contract.

⁴ I.e. the amount of work for road construction and maintenance contracts are usually based on the length of road and not a volume of timber.

4.5 Payment Rates and Schedules

Establishing the rate to be paid is an important part of all contracts that provide a service. Given the long-term nature of replaceable contracts they are usually structured to account for differences between blocks or projects to be harvested over the term of the contract.

How and when money is to be paid for the services is usually included in the main body of a contract. However, rates are usually negotiated on a block by block basis or as a project that includes a number of blocks. Often, these rates are not included in the main part of the contract but are added as a schedule or addendum to the contract once the rate is agreed to by the parties⁵.

Rates to be paid are negotiated based upon various factors including but not limited to site specific information; harvesting method; estimated costs and productivity. Detailed block information that forms the basis to negotiate the rate can also be included as a schedule to the contract. This detailed information provides a clear understanding as to what factors were used in setting the rate. See section 6 of this Guide for additional details regarding rate negotiations.

In regard to payment schedule, the contract should include a clause(s) which speak to invoicing and payment period. It is recommended that contracts include the requirement for contractors to submit invoices for services provided within an established and agreed to timeline.

The best business practice is to keep invoices and payments current and in accordance with what is included in the contract. Establishing and maintaining such payment schedules will reduce the exposure of contractors, in the event of an insolvency, of not being paid for significant amounts of services provided.

The Forestry Services Providers Protection Act (the FSPPA) was enacted in 2013 in response to contractors not receiving payment for timber harvesting services being provided to a licensee and that licensee subsequently becoming insolvent. In certain cases, contractors can apply for compensation. However, there are time limits with respect to how much compensation can be paid. The FSPPA also includes provisions for liens to be imposed on logs and charges applied to accounts. More information can be found on Forest Tenures Branch website: [FSPPA](#)

⁵ Some contracts will simply provide for the rate to be approved by both parties in writing.

5.0 Planning

Planning is a critical component of the forest sector in British Columbia. It is a complicated business with many factors that must be considered when planning timber harvesting operations. Licensees are responsible for the processes and planning requirements leading to approved cutting permits.

The planning and processes for cutting permit approval is outside the scope of this Guide.

Successful planning is a critical component to achieving success. This guide recognizes long-term strategic planning and operational planning.

5.1 Strategic planning

Licensees and contractors are encouraged to conduct strategic planning through periodic meetings to discuss and review their long-term goals and objectives. At minimum this should occur during the time of contract replacement or preferably more often (bi annually).

Licensees and contractors should review and discuss issues such as:

- Individual and common goals and objectives
- Overall status of the forest sector in the province
- Long-term fibre supply / markets / lumber prices
- Pending operational adjustments and changes
- Contractor equipment configuration
- Training needs
- Information needs and new technologies
- Legislation changes (tenure; pricing; harvesting practices; environmental)
- Forest Stewardship plans and permitting opportunities and challenges
- First Nation and local community opportunities and concerns
- Contractor succession plans

5.2 Operational Planning



Significant costs are associated with mobilizing timber harvesting operations. Therefore licensees and contractors should work together toward a common goal of having volume planned (standing timber inventory) for a reasonable time frame and that is designed to ensure contractors can work efficiently.

Given the many challenges on the land base, it is recognized by all parties that long-term planning for harvesting operations is difficult to achieve. Many operations have the current goal of having at least one year of operations planned in advance. In order

to proceed to harvest, approved cutting permits must be in place. Permits are valid for a maximum four-year period and under specific conditions they may be postponed. It is up to the licensee to determine how many openings are within each Cutting Permit.

In most cases the calendar year is used for planning operations. However, this can differ across the province depending upon historical planning processes, seasons, and location of operations.

The planning cycle often starts during the fall with the licensee providing the contractor with the details on blocks proposed for harvesting for the next calendar year.

Licensees should share as much block specific information as early as possible, recognizing that not all of the information will be available. Various plans and reports can be used to source this information (i.e. appraisal summary reports - see Appendix C). If available, other Information such as aerial images, LiDAR, and 3D photography should also be shared.

Spreadsheets are often used to identify the specific site conditions on a block by block basis. The site-specific information typically includes the following:

- Safety Concerns
- Timing
- Block boundaries and size
- Species profiles
- Volume /ha
- Stems /ha
- Harvesting method
- Slope
- Elevation
- Haul distances/cycle time
- Access status
- Roads profiles and landings
- Deflection lines
- Insect/disease
- Services to be provided
- Seasonal constraints
- Access trails
- Leave trees
- Log specifications
- Equipment configuration

- Delivery destinations
- Log specifications and recovery
- Layout and design
- Permitting and approval status
- Cruise information

A more detailed checklist is attached as Appendix D. This checklist could be used to confirm information that is available when planning for specific new blocks.

The contractor should conduct on-site reviews of the proposed blocks to confirm the specific information that has been provided.

6.0 Rate Negotiation and Agreement

6.1 Process

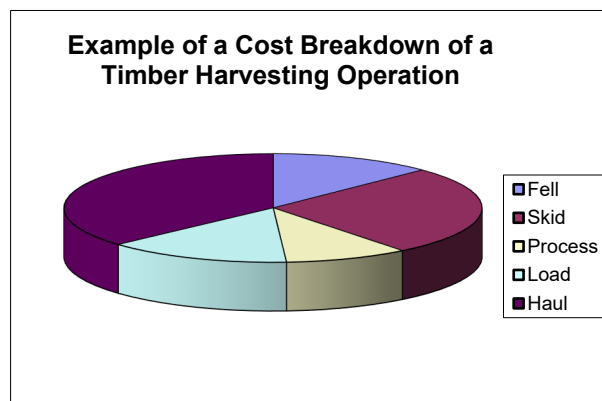
Once the detailed block information has been provided and confirmed it can then be used as the basis for negotiating rates to be paid. In many cases, rates are now negotiated on an individual cutblock basis. However under certain conditions (i.e. remote locations) it may be more appropriate to negotiate rates on a project basis or for a specific cutting permit. In some cases where the site conditions and harvesting methods are very consistent from one block to the next, one rate can be agreed to that covers part of, or the whole term of the contract.

The agreed to rate is usually expressed as \$/cubic metre that can be attached as an addendum to the contract. Alternatively a contract may require that rates are agreed to and signed off by the parties in writing.

The process is initiated by either the licensee or contractor proposing a rate to the other party. Essentially all rates are determined using some form of a model. The complexity and sophistication of these models can be very different. They can vary from using historical rates; simple cash flow models (total costs/volume delivered) or complex costing models that use detailed system, stand, terrain, productivity and costs information. Section 6.2 includes additional details on rate models.

The other party can then review the rate and inputs to the rate and either accept the proposed rate or propose a different rate with supporting information. Acceptance of model outcomes and validity depend on the common agreement of inputs and underlying assumptions. Using reliable information lends to the credibility of the proposed rate.

Rate negotiation should be viewed as an opportunity for transparency and provide a platform to build trust as information is shared and used collaboratively by both parties. Contractors and licensees are encouraged to have an open book approach and be willing to share and discuss



which variables are included and what their values are. Some contractors rely solely on the licensees' model. Others have developed their own sophisticated models.

Both licensees and contractors should have a good understanding and knowledge of the factors included in the models being used.

It is important that as part of the process, it is made clear what constitutes proprietary

information for negotiating rates and what can or cannot be shared with other parties.

If the licensees and contractors are unable to agree upon a rate, then either party can initiate the process that can lead to a rate dispute under the Regulation.

6.2 Rate Models

As mentioned above, some form of a rate model is used to determine rates to be paid for the timber harvesting services being provided. These can be informal calculations or very detailed sophisticated models.

It is recommended that rate models be jointly develop that take the following factors into consideration:

Costs

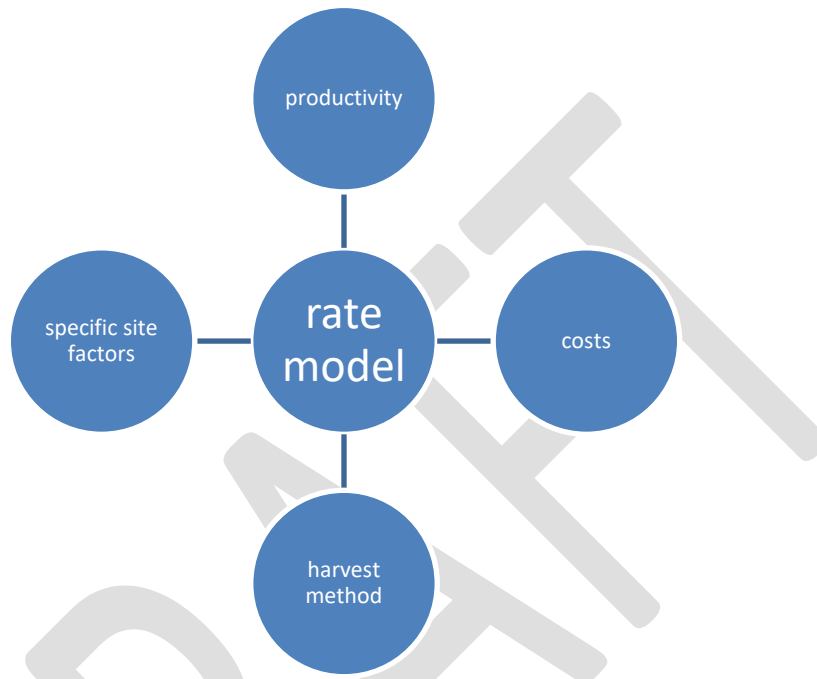
- Equipment Ownership
- Equipment Operating
- Labour/crew
- Overhead
- Fuel
- Road maintenance
- Camp costs
- Allowances and benefits

Site specific factors and conditions

- Location
- Haul distance
- Slope
- Volume/ha
- Species composition
- Tree size
- Terrain
- Elevation

Productivity

- Harvest method
- Set up times (Mob & demob)
- Type of machine
- Block configuration
- Roads and landings
- Season (snow depths)
- Labour/ experience
- Site specific factors



Some examples of rate models can be found on various websites. The following are a few examples:

[USDA Forest Operations Textbook](#)

[US Forest Service – \(GenHarModel\)](#)

6.3 Information Sources

For years now, many licensees and contractors have been collecting relevant data in regard to productivity and costs associated with timber harvesting operations. Some licensees have data from its own company crews operations from which they can draw comparisons.

Contractors are encouraged to collect extensive data during their operations and present compelling information for the models based on facts to back their claims. Having information produced or verified by other third party sources can also be an advantage. It is very important that they are able to identify the source of the information and proof that it is reliable. New

technology such as webcams and equipment telematics are also becoming reliable sources of information.

Some third parties offer services for a fee that include data collection, analysis and reporting in regard to logging costs, productivity and modelling. They also can provide the option of comparing a contractor's costs and productivity against other similar contractors and operations (benchmarking).

6.4 Operational Change and Rates

Planning of forest operations involves many complexities and despite the best efforts for well planned operations, change is often inevitable. For example a change may be initiated due to an uncontrollable event (i.e. natural disaster), a change to a legal requirements or a strategic move to take advantage of market fluctuations.

A standard provision for a replaceable contract allows a licensee (for bona fide reasons) to require a contractor to make operational changes including:

- Using a different harvesting method or technology
- Moving to a new operating area
- Using with different operating specifications
- Complying with new laws or directions made by the government

If any of these changes result in a substantial change to the timber harvesting services to be provided by the contractor, the contractor may request a review of the rate in effect at the time.

Contractors and licensees should know and understand the specific clauses of the contract in regard to change and what situations may trigger a review of the rate in place at the time.

7.0 Monitoring and Evaluation

As with any project, monitoring and review of timber harvesting operations are critical components of successful management. Monitoring is the ongoing process of regularly collecting and analysing relevant information to make sure you are doing what you set out to do. Evaluation may take place annually or at the end of a longer- term project.

7.1 Monitoring of Operations



Project monitoring refers to the process of keeping track of all project-related metrics including performance and services, identifying potential problems and taking corrective actions necessary to ensure that the project remains on track, on budget and meeting the specified deadlines.

Licensees should be making regular field inspections to the block during operations. It is recommended that this occur weekly.

All obligations should be reviewed during these inspections and include but are not limited to:

- Safety requirements
- Equipment use
- Environmental concerns
- Log specifications
- Production and timelines
- Boundaries

Actual production and the agreed to flow of logs are critical to both parties. Licensees and contactors should establish a system that regularly provides reports on the status of operations. This can include progress on a block or the actual volume being delivered to the specified destination. For some operations, the parties have agreed to daily production reports being provided via email or other systems. Regular reporting provides the ability to recognize and address production issues in a timely manner.

7.2 Project Evaluation

Once a block or project is completed, it is easy for the parties to just move on to the next block or have an informal discussion as to the results to the project. However more formal post project evaluations should be conducted to determine if all the deliverables were met and how well the contractor and licensee met their obligations.

These evaluations could be documented to serve as a reference on the project and to identify any lessons learned. A formal project evaluation is not the time to bring forward problems that were encountered and associated requests to renegotiate the terms of the contract. Those discussions need to happen and be resolved in a timely manner at the time the problems occur. Post project reviews are a valuable way for licensees and contractors to improve their performance and skills.

8.0 Important Website Links

- [Forest Act](#)
- [Timber Harvesting Contract and Subcontract Regulation](#)
- [Resource Tenures Branch](#)
- [Govt press release](#) Contractor Sustainability
- [Council of Forest Industries](#)
- [Interior Logging Association](#)
- [Northwest Loggers Association](#)
- [Interior Lumber Manufacturers Association](#)
- [Worksafe BC](#)
- [B C Forest Safety Council](#)

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9.0 Feedback and Updates

Suggestions for improving this Guide are encouraged and can be submitted directly to the Forest Tenures Branch at the following email address: ForestTenuresBranch@gov.bc.ca. Comments to the individual stakeholder agencies are also encouraged. This guideline will be reviewed and updated periodically. Readers and users should ensure they are referencing the most current version of this guideline which is located on the Forest [Tenures Branch Website](#).

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10.0 Appendices

- A. Timber Harvest Billing System
- B. Cut Control Statement
- C. Appraisal Summary Report
- D. New Block Checklist

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APPENDIX A

HARVEST BILLING SYSTEM REPORT

The Harvest Billing System (the HBS) is the Ministry's scale data management and invoicing system. Scaling data is submitted by Industry to the Ministry electronically, then data is validated and stumpage invoices or volume statements are calculated, issued and delivered to clients via HBS.

Input to the HBS is restricted to Industry Clients, however the general public has access and can request various detailed summary reports of the timber that has been scaled under certain licences and timber marks for a given period of time.

The image below is an example of a report from the Provinces Harvest Billing System.

		Ministry of Forests, Lands, and Natural Resource Operations												Page: 1 of 1 Run date: 2021-Jan-21 Runtime: 1:43:06 PM Report Id: HBS3R441 Request Number: 6154056	
		Harvest Billing System													
		Mark Monthly Scaling History Report													
SP	PR	GR	2018-Jan	2018-Feb	2018-Mar	2018-Apr	2018-May	2018-Jun	2018-Jul	2018-Aug	2018-Sep	2018-Oct	2018-Nov	2018-Dec	Total
REGION: Thompson-Okanagan Natural Resource Region															
BA	2	MP	0.000	0.000	0.000	0.000	0.000	2.016	0.000	0.000	0.000	0.000	0.000	0.000	2.016
FI	1	MP	0.000	0.000	0.000	0.000	668.406	1,355.419	0.000	0.000	0.000	0.000	0.000	0.000	2,023.827
FI	2	MP	0.000	0.000	0.000	0.000	476.112	1,077.233	0.000	0.000	0.000	0.000	0.000	0.000	1,553.345
FI	4	MP	0.000	0.000	0.000	0.000	119.268	276.750	0.000	0.000	0.000	0.000	0.000	0.000	396.018
FI	6	MP	0.000	0.000	0.000	0.000	0.000	13.676	0.000	0.000	0.000	0.000	0.000	0.000	13.676
LO	2	MP	0.000	0.000	0.000	0.000	0.000	10.618	0.000	0.000	0.000	0.000	0.000	0.000	10.618
R	Z	MP	0.000	0.000	0.000	0.000	0.000	0.067	0.000	0.000	0.000	0.000	0.000	0.000	0.067
SP	2	MP	0.000	0.000	0.000	0.000	0.000	6.183	0.000	0.000	0.000	0.000	0.000	0.000	6.183
REGION TOTAL			0.000	0.000	0.000	0.000	1,265.788	2,743.962	0.000	0.000	0.000	0.000	0.000	0.000	4,009.750
GRAND TOTAL:			0.000	0.000	0.000	0.000	1,265.788	2,743.962	0.000	0.000	0.000	0.000	0.000	0.000	4,009.750

Public access to the HBS can be gained through the following website: HBS [Website](#).

Two Youtube tutorials outlining the steps to produce simple reports have been developed by the Federation of B.C. Woodlot Associations. These videos can be found at the following websites:

1. How to Verify Cut Control [By Grade](#)
2. Using HBS to [Verify Cut Control](#)

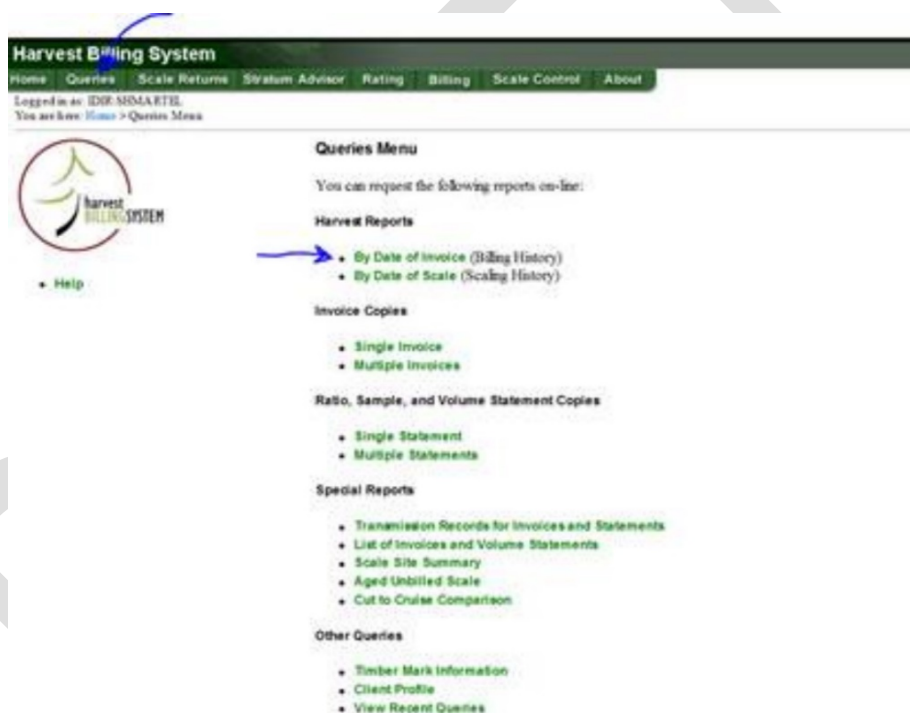
Basic HBS instructions are as follows.

There are many different pieces of information available from the HARVEST BILLING SYSTEM, and many different ways to request that information. The following instruction is just one way to collect once specific piece of information. By setting different criteria, you will be able to receive reports containing different information. [The following](#) are instructions for producing simple reports.

[Harvest Billing System \(general\)](#)

[Public Portal](#)

1. Under HARVEST REPORTS, click on either “By Date of Invoice” or “By Date of Scale”. Which one you pick depends on whether you want Billing History or Scaling History – your choice.



2. Under MONTH BILLED INTERVAL (or MONTH SCALED INTERVAL, if you chose “By Date of Scale”), state the year and month you want records returned. Note that the system can only do 12 months at a time.
3. Click the radio button beside FOREST FILE ID and enter the licence number (e.g. For a Forest Licence, you would enter a number such as A16869; for a TFL, you would enter it this way: TFL60).

4. Ensure REGION/DISTRICT SCALED radio button is clicked and that the criteria ALL is set for it.

Under FILTERS, ensure:

- SPECIES is set to ALL;
- PRODUCT is set to ALL;
- GRADE is set to EXCLUDE FIRMWOOD REJECTS (all grades except Z); and
- BILLING TYPE is checked for all NORMAL, CRUISE BASED, WASTE, and BEACHCOMB.

5. Click CONFIGURE PDF REPORT.

Home Queries Scale Returns Stream Advisor Rating Billing Scale Control About

Logged as: IDP: SIO-LARTEL
You are here: Home > Queries Menu > Mark Monthly Billing History

Mark Monthly Billing History Selection

In addition to the Month Billed Interval, please specify one or more of the following:
Region/District Harvested, Mark Holder, File Type, Mgmt Unit Type, Forest File ID, or Timber Mark.

* indicates a required field

* Month Billed Interval (up to 12 months)

From To

Region/District Harvested

Mark Holder

☐ File Type

☐ Mgmt Unit Type

☒ Forest File ID

☐ Timber Mark

Mgmt Unit No

Filters

Species

Product

Grade

Billing Type ☒ Normal ☒ Cruise Based ☐ Waste ☐ Beachcomb

If you get result of “NO RECORDS”, then this means that there is no volume to report based on the criteria that you set.

If there is volume to report, then you are asked how you want it reported via a PDF.

6. Many options available, but here is a common one used:

Under GROUP OUTPUT BY:

- Click radio button LICENCE AND MARK

Under DETAIL LINES DISPLAYED:

- Click radio button VOLUME.

Under INCLUDE SPECIES/PRODUCTS/GRADES GROUPS:

- Click radio button NONE.

Now, **do NOT click on “VIEW PDF PREVIEW”**, as this will NOT give you any results, so instead, **click on “SEND PDF REPORT”**.

7. Enter your email address twice as requested and then click on SUBMIT.

You will receive an email with a link to your report.

The report will provide the info as a PDF and will break your volume down by month.

APPENDIX B

CUT CONTROL STATEMENT

The following is an example of a template used by the Ministry for Cut Control Statements. Addition information on Cut Control can be found at the following Ministry website:

[Cut Control](#)

Licensee Name Address 1 Address 2 Postal Code	Ministry of Forests, Lands, Natural Resource Operations and Rural Development Address 1 Address 2 Postal Code
--------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------

Licence: FL A#####
 Area: Area of License
 Licence Effective Date: DD/MM/YYYY
 Licence Expiry Date: DD/MM/YYYY
 Current AAC: ###,###

Type in dynamic notes here...
 Replaceable
 Term of more than 5 years

Legislated Cut Control under Part 4, Division 3.1 of the Forest Act

Type in custom notations here: You may need to extend the size of this box in order to display all your text...

Statement Details:

Overcut from Last Period: ###,###	Maximum Licence Volume: ###,### m ³
Cut Control Limit: ###%	Total Harvested Timber: ###,### m ³
	Percent of Maximum Volume: ###,### m ³
	Remaining Licence Volume: ###,### m ³

Allowable Annual Cut and Harvested Volumes in Cubic Metres by Calendar Year:

Calendar Year	AAC (m ³)	Volume Cut (m ³)	Volume Unbilled Scale (m ³)	Volume Wasted (m ³)	Volume Unauthorized (m ³)	Volume Credited – Other (m ³)	Volume Attributed (m ³)	Volume Grade 4 Credit (m ³)	Total Timber Volume (m ³)	Volume Remaining (m ³)	Percent AAC Harvested (%)
Total to End ###											
TOTAL TO END CCP											

Notations:

Type in additional notations here: Add contact information, etc... add more details about the licence – You may need to extend the text box to display all or your text

APPENDIX C

APPRAISAL INFORMATION

The timber cruise and associated appraisal reports are a valuable source of information regarding site specific information of blocks proposed for harvesting.

The following is an example of one of the reports that are available. Note these reports are available to the appropriate industry client, but are not available to the public.

Additional information regarding cruising and the various appraisal reports can be found at the following ministry website:

[Timber Measurement Information](#) (Timber Pricing Branch)

*** FOR APPRAISAL PURPOSES ***

Appraisal Summary Report 1

15-Dec-2011 09:17:07AM APPSM- 1, p3
 Filename: RCTS_Cruise101.ccp
 Compiled by: TRCO NRG Ltd.
 Cruised by: RCTS
 Version: 2011.00 TNRG build 5782

Average Line Method
 BC TIMBER SALES
 Licence Number: A99999 CP: 001
 Project:
 Location :

Grades: MOF Computerized
 Computerized Decay
 Computerized Waste
 Computerized Breakage
 No Of Blocks : 3

Utilization Levels:

	Minimum DBH	Top Diameter	Stump Height
Mature Blocks: (cm)	17.5	10.0	30
Immature Blocks: (cm)	12.0	10.0	30
Exception[PL]: (cm)	12.5	10.0	30
Standard Log Length: (m)	5.00		

Net Area: [All Treatment Units : 52.4] 2

All Method Summary

Species	Net Volume (m3)	Net Volume / ha	Decay%	Stud Log%	L&P	All Burn%
FI Doug-Fir	568	10.830	0.000	1	62	176
LA Larch	2141	40.864	4.557	3	50	191
LO Lodgepole Pine	8815	168.227	21.348	2	57	182
SP Spruce	846	16.147	0.000	2	55	190
Conifer	12370	236.068	25.905	2	56	0
Total	12370	236.068	25.905	2	56	0

Harvesting Method Summaries

Species	Harvest Method	Net Volume	Average Slope%	Net Vol /Tree	Net Vol/ha	Defect% (DWS)	Partial Cut%	All Fire%	Heavy Fire%	Down Tree%	Dead Useless%
All Species	SC	12370	20	0.35	236.068	7	0	0	0	58	2
Conifer	SC	12370	20	0.35	236.068	7	0	0	0	58	2
Conifer	All Methods	12370	20	0.35	236.068	7	0	0	0	58	2

Insect Damage Net Volume (m3) 12

Green Attack	L.P. Pine	All Other Conifer	Red Attack	Gray Attack	Insect Damage
183	0	280	0	0	0

Cutting Authority 14

95% Confidence Interval	Plots/Ha	Cruised Trees/Plot	# Plots: 52	# <= 5yrs: 52	# > 5yrs: 0	# > 10yrs: 0	# no date: 0
14.9	1.0	5.4					

L.P. Fine Red/Gray Attack % of Conifer by Block 13


64W: 2%	650: 2%	651: 2%

FLAGS: Full Volumes, Normal Cruise, All Trees Compiled, Measure Plots Only, Damage, , Dry Belt Fir
 CruiseComp Copyright© 1996-2011, TRCO Natural Resource Group Ltd.

This purpose of this document is to describe the key attributes that are found in some of the cruise compilation reports and to enhance the reader's understanding of the reported attributes. Approved compilation programs generate the same information; however, where and how the information is presented may differ. The following descriptions illustrate the reports generated by the CruiseComp program.

1.0 Appraisal Summary Report (ASR)

The appraisal summary report provides most of the cruise attributes that are used to derive the indicated stumpage rate. Some of the attributes are described in this section of the report. An example of the report is shown in figure #1.

- ① **Report Header Information** - The administrative, ownership and utilization specifications for the cutting authority are described in the text box in the example report.
 - ② **Net Area: (All Treatment Units: XXX.X)** - This is the total area in hectares for the cutting authority from which timber may be harvested and the area that has been sampled.
 - ③ **Net Volume (m³)** - This is the total net merchantable volume in cubic meters for each species that was sampled in the cruise plots. The term 'merchantable' describes the volume between a 30cm stump and a 10 or 15cm top that is reduced to account for decay, waste and breakage. The volumes by species are listed for the live trees, the dead potential trees that are at least 50% firm-wood and the live and dead potential trees combined.
 - ④ **Net Volume/ha (m³)** - This is the total net merchantable volume expressed on per hectare basis.
 - ⑤ **LRF** - This is the average cruise lumber recovery factor for each species of timber expressed in board feet per m³. In calculating the stumpage rate, the cruise LRF is increased by an LRF add-on recognizes the changes in milling efficiencies over time and in different areas of the province.
 - ⑥ **Average slope (%)** - This is the average slope in percent for each harvest method and for the total cutting authority area. The slope is an average of the maximum slope readings taken at 15m slope distance in each cruise plot.
 - ⑦ **Net Volume/Tree** - This is the net merchantable volume per tree for all trees. The net volume/tree is useful to estimate the felling and log handling costs.
 - ⑧ **All Fire %** - This is the percentage of the net merchantable volume that has recent scorching and charring on the bole of the tree and includes all fire damage coded trees. Most of the light and moderate fire damage is superficial scorching of the bark and stem, while heavy damage reduces the lumber recovery.
 - ⑨ **Heavy Fire %** - This is the percentage of the net merchantable volume that has recent charring on the bole of the tree. This category describes the proportion of the volume that can be expected to contain significant losses to timber volume and quality.
- 
- ⑩ **Down Tree %** - This is the percentage of the net merchantable volume that is in trees that are on the ground or standing with breakage in the merchantable portion of the tree.
 - ⑪ **Dead Useless %** - This is the percentage of the net merchantable volume that is in dead standing trees (snags) that are at least 3m tall and dead useless (less than 50% firm wood).
 - ⑫ **Insect Damage Net Volume (m³)** - This is the net merchantable volume in the total cutting authority that is in trees that are:
 - Lodgepole pine trees and recently killed by the Mountain Pine Beetle (at least 5% green needles) = Green Attack.
 - Lodgepole pine trees killed in the previous couple of years by the Mountain Pine Beetle (< 5% green & at least 5% red needles) = Red Attack.
 - Lodgepole pine trees killed several years previously by the Mountain Pine Beetle (less than 5% red needles) = Gray Attack.
 - All other conifers attacked by insects.
 - ⑬ **Lodgepole pine Red/Grey Attack - % of Conifer by Block (m³)** - This is the percentage of the coniferous species net merchantable volume in each block that has red or gray attack in lodgepole pine.
 - ⑭ **Cutting Authority – 95% Confidence Interval** - This is the sampling error in percent that can be expected 19 times out of 20 (95%) for the 'All species net merchantable volume per hectare' weighted by timber type volume for all of the cruise plots in the cutting authority. For example:
 - The all species volume per hectare for the cruise in Figure #1 is = 236.068 m³/ha.
 - The sampling error is 14.9%.
 - The upper limit of the volume per hectare that can be expected 19 times out of 20 is = 236.068 + (236.068 * 14.9%) = 271 m³/ha.
 - The lower limit of the volume per hectare that can be expected 19 times out of 20 is = 236.068 - (236.068 * 14.9%) = 201 m³/ha.
 - The administrative, ownership and some cruise control information for the cutting authority are described in the text box in figure #1.

APPENDIX D

TIMBER HARVESTING CONTRACT NEW BLOCK CHECKLIST

_____	_____	_____
Licensee	Contractor	Contract Number

Harvest Year		

1. General Admin

		Comments
Licence No.	<input type="checkbox"/>	
Cutting Permit status/no.	<input type="checkbox"/>	
Block No.	<input type="checkbox"/>	
Timber Mark	<input type="checkbox"/>	
GPS coordinates	<input type="checkbox"/>	
Licensee contact/phone	<input type="checkbox"/>	
Contractor contact/phone	<input type="checkbox"/>	
Reporting	<input type="checkbox"/>	
Payment	<input type="checkbox"/>	

2. Safety and Fire Preparedness

		Comments
Prime contractor	<input type="checkbox"/>	
Phase congestion	<input type="checkbox"/>	
Safety requirements	<input type="checkbox"/>	
Fire preparedness	<input type="checkbox"/>	
Fire suppression	<input type="checkbox"/>	
Supervisor	<input type="checkbox"/>	

3. Stand Information

		Comments
Area (ha)	<input type="checkbox"/>	
Total volume (m ³)	<input type="checkbox"/>	
Volume/ha	<input type="checkbox"/>	
Species composition	<input type="checkbox"/>	
Stem size (m ³ /stem)	<input type="checkbox"/>	
Density (m ³ /ha)	<input type="checkbox"/>	

4. Block Information

		Comments
Map	<input type="checkbox"/>	
Fire kill and damage (%)	<input type="checkbox"/>	
Beetle kill and damage (%)	<input type="checkbox"/>	
Windthrow (%)	<input type="checkbox"/>	
Riparian areas	<input type="checkbox"/>	
Slope (%)	<input type="checkbox"/>	
Deflection	<input type="checkbox"/>	
Adverse skidding	<input type="checkbox"/>	
Elevation	<input type="checkbox"/>	

5. Harvest Prescription

		Comments
Harvest method	<input type="checkbox"/>	
Services to be provided	<input type="checkbox"/>	
Seasonal constraints	<input type="checkbox"/>	
Special equipment	<input type="checkbox"/>	
Utilization specifications	<input type="checkbox"/>	
Sorting	<input type="checkbox"/>	
Reserve areas	<input type="checkbox"/>	
Leave tree requirements	<input type="checkbox"/>	
Site degradation limits	<input type="checkbox"/>	

6. Roads and Access

		Comments
Pre-built roads	<input type="checkbox"/>	

Road access	<input type="checkbox"/>	
Temporary roads	<input type="checkbox"/>	
On block roads	<input type="checkbox"/>	
Trails	<input type="checkbox"/>	
Landings	<input type="checkbox"/>	
Deactivation	<input type="checkbox"/>	

7. Hauling Specifics

		Comments
Scale site and hours	<input type="checkbox"/>	
Travel time	<input type="checkbox"/>	
Haul type	<input type="checkbox"/>	
Distance to destination	<input type="checkbox"/>	
Fuel surcharge	<input type="checkbox"/>	

8. Harvest Phases (Services/Rates)

		Comments
Stump to Dump or:	<input type="checkbox"/>	
Roads	<input type="checkbox"/>	
Falling	<input type="checkbox"/>	
Yarding/skidding	<input type="checkbox"/>	
Processing	<input type="checkbox"/>	
Decking	<input type="checkbox"/>	
Loading	<input type="checkbox"/>	
Hauling	<input type="checkbox"/>	
Sorting	<input type="checkbox"/>	
Camp	<input type="checkbox"/>	

2021-03-10



DRAFT