

This **TIMBER LICENSE** made in duplicate this *11th* day of *October* A.D., 2017.

BETWEEN:

HER MAJESTY THE QUEEN in right of the Province of Nova Scotia, as represented by the Minister of Natural Resources (hereinafter referred to as the "DNR")

OF THE FIRST PART

- AND -

WESTFOR MANAGEMENT INC., a company incorporated under the laws of Nova Scotia (hereinafter referred to as the "Licensee")

OF THE SECOND PART

WHEREAS the Licensee is a forest management company owned by and comprised of shareholders owning Wood Processing Facilities;

AND WHEREAS the Licensee's shareholders utilize both hardwood and softwood sawlogs, studwood and pulpwood as useable in the Shareholders' mills for manufacturing;

AND WHEREAS DNR has timber on Crown lands requiring management activities of forest harvesting and silviculture;

AND WHEREAS the Minister of Natural Resources is authorized under Section 31 of the *Crown Lands Act* to offer a timber license ("License");

NOW THEREFORE WITNESSETH that for consideration, including the mutual covenants and agreements herein contained, the parties hereby agree as follows:

1.0 DEFINITIONS

- 1.1. "Biomass Fuel" means logs, bolts or pieces of wood of any size or form, from any species of hardwood or softwood tree having no higher valued potential and if originating from a forest harvest or silviculture operation shall be made only from the wood or bark of a Tree Stem from which the branches have been removed or if originating from a non-harvesting operation may be made from any portion of a tree and also includes wood residuals.

- 1.2. “Forest Activities” means but is not limited to, the activities of management, planning, wood supply analysis, coordination, certification, harvesting, transporting, silviculture and the construction, maintenance, and decommission of access roads.
- 1.3. “GMT” means green metric tonnes.
- 1.4. “Harvest Operations” means forest sites where trees are being cut and removed.
- 1.5. “Mixed Residue” means the following specific types of wood residuals: sawdust, shavings, bark, and wood particles.
- 1.6. “Operating Year” means a calendar year.
- 1.7. “Primary Forest Products” shall have the meaning as defined in the *Forests Act* from time to time.
- 1.8. “Shareholder” means a person, including any form of corporation, society or partnership, holding shares in WestFor Management Inc.
- 1.9. “Tree Stem” means the principle axis of a tree from which buds, shoots and branches develop but not including the stump or wood below the root collar.
- 1.10. “Wood Processing Facility” means a mill in which timber is manufactured into secondary wood products, a by-product of which manufacturing is wood residuals.
- 1.11. “Crown LPS” means Crown Land Production and Sales which is an information and reporting system tracking Crown harvests.
- 1.12. Where any other term or phrase is defined in the *Crown Lands Act*, that word or phrase shall have the same meaning under this License.

2.0 **TERM**

- 2.1. The term of this License is October 1st, 2017 until the 31st day of March, A.D., 2018.
- 2.2. If DNR in its sole discretion deems an extension reasonable and, provided the Licensee applies in writing for an extension prior to the termination date specified in this license, the term of this license may be extended for up to one year by DNR.

3.0 NATURAL RESOURCES STRATEGY 2011-2020

- 3.1. The Licensee supports the Province's Natural Resources Strategy (the "Strategy") and its underlying values.
- 3.2. Both parties agree that in accordance with the *Forests Act*, they are supportive of encouraging the development and management of private forest land as the primary source of Primary Forest Products for industry in the Province.

4.0 FIBRE ALLOCATION TERMS

- 4.1. The Licensee shall comply with the forest stand treatment objectives and criteria as agreed to between the Licensee and the DNR.
- 4.2. DNR agrees to supply the Licensee a Fibre Allocation from Crown timber which shall consist of the cumulative total of allocations to each of the Shareholders as Primary Forest Products usable in the Shareholders' mills ("Fibre Allocation"), as set out in Schedule "A" of the Agreement, and this Fibre Allocation shall include:
 - a. The right to harvest on the Crown lands on the identified areas provided by the Regional Forester; and
 - b. The right to acquire the by-product material originating from other Crown land harvests being conducted by other Crown Licensees that is the Primary Forest Product specified in 4.2; and
 - c. The condition that it be utilized in accordance with and subject to the following terms:
 - i. Shareholders are to utilize the Fibre Allocation as a "back-up" supply to the available private sector supply.
 - ii. DNR shall identify and approve Operating Plans for other Licensees that will contain by-product to the Fibre Allocation usable in their Wood Processing Facility(s). The harvested by-product is required to be offered first by these Licensees to other Crown Licensees who can use such by-product in their Wood Processing Facility. Shareholders and other Licensees are to purchase the material as specified in this Section when offered to them by other Crown Licensees, subject to current supply need and economic considerations.

- iii. DNR is not obligated to identify sufficient Primary Forest Product to completely fulfil the Fibre Allocation in Section 4.2., provided there is reasonable by-product purchase opportunity from other Licensees.
 - iv. Licensees may trade by-product material from approved Harvest Operations for material usable in their Wood Processing Facilities, provided that it is an equivalent amount and pre-approved by DNR.
 - v. The Licensee shall cease Harvest Operations on identified harvest areas when the amount specified in Schedule "A" has been acquired from Crown lands through harvests on approved areas, or purchases and trades.
 - vi. At cessation or termination of the Agreement, the Licensee and the Regional Crown Forester may agree on the completion of active Harvest Operations to a logical boundary.
 - vii. Licensees may co-operate in road construction and maintenance arrangements with each other and act as each other's contractor in approved Harvest Operations where the Primary Forest Product mix or forest site and forest stand conditions make it reasonable to do so.
- 4.3. DNR is committed to achieving its long-term forest sustainability objectives in accordance with forest wood supply analysis, and therefore, any remaining un-harvested Fibre Allocation as identified by the Regional Forester, which in the opinion of DNR, needs to be harvested and utilized by the Licensee, shall be included in future Operating Plans and forms part of any subsequent renewal or a new license, unless otherwise agreed to by both parties. Licensees shall harvest these volumes, and DNR shall have no obligation to provide alternate fibre.
- 4.4. The Fibre Allocation under the License is conditioned on DNR's ability to identify stands suitable, available, and ready for harvest on the Crown land. The License is also conditional on the Licensee and DNR completing the Operating Plan approval process within a timely basis in accordance with 5.0.
- 4.5. The Licensee shall be responsible for supplying all the necessary equipment, labour and materials to perform Forest Activities on a forest site or sites on Crown land.
- 4.6. The Licensee shall complete silviculture work funded under the Crown Land

Silviculture Fund.

- 4.7. The Licensee shall do a pre-treatment assessment using the Forest Ecological Classification system on a stand by stand basis unless alternate direction has been provided by the Regional Forester. The Licensee shall make management prescriptions, submit harvesting plans, perform all site layouts and receive approval from DNR prior to the start-up of any Harvest Operations.
- 4.8. The Licensee shall submit to DNR approved harvest plans in such acceptable formats, as specified by DNR, not less than 60 days prior to the planned harvest commencement date, for posting on DNR's website. Public comments received on harvest plans shall be addressed by the Licensee and the comments and the Licensee's response shall be reported to DNR before posting the harvest plan on the website.
- 4.9. The Licensee shall at all times conduct its Forestry Activities in compliance with the *Code of Forest Practices* and with all applicable laws, policies, guidelines and regulations issued by DNR or any other governmental authority having jurisdiction in the circumstances. (www.gov.ns.ca/natr/forestry/reports/Code-of-Forest-Practice.pdf.)
- 4.10. DNR is maintaining the Sustainable Forest Initiative (SFI) certification on some of the lands identified for operations. The Licensee shall abide by certification standards as instructed by DNR staff. Training shall be provided for contractors and Licensees.
- 4.11. Schedule "B", which is a part of the License, contains the prescription and harvest standards applicable to the License. Other standards may be identified by DNR from time to time as applicable to harvest sites.
- 4.12. The Licensee shall not harvest from the Crown lands any Biomass Fuel or any other Primary Forest Product originating from coarse or fine wood debris, tree crowns (tops), or stumps from forestry operations, unless otherwise agreed to by both parties in writing.
- 4.13. The Licensee is to cooperate with DNR in providing reasonable amounts of firewood to local markets destined for domestic household heating. DNR shall advise the Licensee of such needs from time to time to be provided from appropriate approved operations.
- 4.14. The Licensee shall submit start-up notices to the DNR. The Licensee shall immediately notify DNR if any forestry work will be started earlier or later than the date or time noted in any previous notifications sent by the Licensee.
- 4.15. DNR, or its representatives, shall be permitted to inspect the Forest Activities under this license at any time and may review any and all associated records.

5.0 HARVESTING OPERATIONS

- 5.1. Prior to any Forest Activities initiated under this License, the Licensee shall submit to DNR an Operating Plan for the cutting of Primary Forest Products under this License. An acceptable format is provided for in Schedule "C" of the License.
- 5.2. An Operating Plan shall be developed by the Licensee in consultation with DNR that shall show the locations, cutting patterns, method of cut, specialty cuts, and, if applicable, sequential order of cuts in accordance with the applicable provisions of this License. The Operating Plan shall also show the volumes and products proposed to be cut from the individual stands of timber.
- 5.3. Approval of the Operating Plan is subject to harvest layout and harvest practice in accordance with applicable regulations and DNR policy. The Licensee shall contact the Regional Crown Forester in regard to any Integrated Resource Practices, Special Management Practice, Code of Forest Practice, and any applicable certification standard requirements to be included in the Operating Plan.
- 5.4. The Operating Plan shall form part of this License and the Licensee may not implement the Operating Plan until it has been approved in writing by DNR. DNR will not approve an Operating Plan if there are any amounts payable and owed to DNR.
- 5.5. DNR shall advise the Licensee not later than 35 working days after the Licensee's submission whether the Operating Plan has been approved.
- 5.6. The Licensee shall comply with the terms and conditions of harvests as contained in DNR's approval of an Operating Plan.
- 5.7. The areas approved under the Operating Plan shall solely be the forest sites designated for cutting. Any forest areas cut that are not approved for cutting under the Operating Plan, or pre-authorized by the lead Regional Crown Forester or other authority in writing, shall be considered a trespass on Crown lands and an offence under the *Crown Lands Act*.
- 5.8. The Licensee shall return to any site that contains approved areas that were not cut, but are deemed to be operable by DNR, and complete the Harvest Operation.
- 5.9. DNR requires flagging of road and harvest area layouts prior to any Forest Activities. Other flagging requirements, if any, shall be specified in the approved Operating Plan. All flagging on SFI certified lands shall be carried out in accordance with DNR's Environmental Management System's work instructions or equivalent as approved by DNR.

- 5.10. All trees shall be cut as low as possible and, where practical, not more than fifteen (15) centimetres above the ground. The tops of all trees shall be utilized to a diameter inside bark of nine (9) centimetres, where practical.
- 5.11. The Licensee shall leave all boundary lines of Crown lands, roadsides, recreational and hiking trails, clear and free from brush and slash that are identified by DNR or which could reasonably be considered identifiable by Licensee. Blazed trees on the Crown side of the line may be cut off above the blazes.
- 5.12. The Licensee shall carry out all Forest Activities on Crown lands:
- a. In a good and professional manner that is acceptable to the Regional Resource Manager or designate; and
 - b. In a manner prescribed to preserve young growing trees and/or regenerate natural seedlings, or to allow for immediate follow-up with site preparation and/or planting and to minimize the hazards of fire; and
 - c. In accordance with provisions of the *Forests Act*, the *Crown Lands Act*, the *Forest Enhancement Act*, the *Nova Scotia Primary Forest Products Marketing Act*, and such other Acts of the Province of Nova Scotia and regulations in force; and
 - d. In compliance with the terms of the License; and
 - e. In accordance with the Forest Wildlife Guidelines, the Wildlife Habitat and Watercourse Protection Regulations and any other harvesting guidelines and practices approved from time to time by DNR and administered by DNR. In the event of conflicts between the requirements of the Forest Wildlife Guidelines, the Wildlife Habitat and Watercourse Protections Regulations and the harvesting guidelines and practices prescribed in this License, then the more restrictive and environmentally sound practices shall apply.

6.0 UTILIZATION OF HARVESTED WOOD

- 6.1. Subject to the provisions of Article 17 of this License, the Licensee shall make all commercially reasonable efforts at the time of harvest or acquisition of harvested timber to sort the Primary Forest Products to the highest and best value to the Licensee and DNR, that shall include:
- a. The Licensee shall utilize timber cut under this License in accordance with Section 4.2 for processing in the Licensee's Shareholder's mills unless otherwise agreed in writing by the parties.

- b. The Licensee shall sell or exchange all other Primary Forest Products harvested from its Harvest Operations which have a higher and better use at the time of harvest or acquisition and shall make commercially reasonable efforts to offer a right of first refusal for such Primary Forest Products to other Crown Land Licensees who operate wood processing facilities at the time of harvest or acquisition. The Licensee shall contact the Regional Crown Forester for information on other Licensee(s) with unfulfilled fibre volume allocations.
 - c. When other Crown Licensees do not take all the Primary Forest Products offered, the Licensee shall then make reasonable commercial efforts to offer it in the open market to achieve the highest and best use of the resulting fibre and, if possible, to exchange for equivalent volumes to satisfy the product needs of the Licensee.
- 6.2. Any amount of Primary Forest Product originating from Crown lands and purchased from other Crown Licensees are deemed to have been supplied by DNR against its volume allocation obligations under this License with the exception of softwood pulpwood products.
 - 6.3. Any amount of Primary Forest Product originating from Crown lands offered to the Licensee through arrangements made by DNR and purchased by the Licensee are deemed to have been supplied by DNR against its Fibre Allocation obligations under this License with the exception of softwood pulpwood products.
 - 6.4. The Licensee shall keep DNR informed as to contractual arrangements made with third parties for the supply of Primary Forest Products from Crown lands, as well as any changes to, or terminations of, such arrangements.

7.0 BROOKLYN FIBRE ASSURANCE

- 7.1. For Primary Forest Products harvested on any Crown lands located west of Highway 102 during the term of this License, the Licensee agrees that:
 - a. The Licensee shall provide a right of first refusal to Brooklyn Power Corporation ("Brooklyn Power") on all biomass fuel logs or other forms of primary forest biomass fuels produced as part of the Licensee's harvest on these lands;
 - b. At the request of Brooklyn Power, the Shareholders shall sell or cause to be sold to Brooklyn Power an amount of Mixed Residue generated from the processing of any Crown harvested Primary Forest Products that are delivered or sold to any Registered Buyer (including the Shareholders);
 - c. Until the Parties agree otherwise the amount of Mixed Residue expected

to be sold to Brooklyn Power will be 12 percent per GMT of Primary Forest Products harvested;

- d. The Mixed Residue price to Brooklyn Power is 17(1) per GMT at the Wood Processing Facility (exclusive of transportation costs from the Wood Processing Facility), adjusted annually by an inflation factor;
- e. For the purpose of Section 7.1(d) above the inflation factor shall be $\frac{1}{2}$ the inflation rate prescribed for electricity produced by the Brooklyn Power facility and sold to Nova Scotia Power Inc. pursuant to a Power Purchase Agreement as may be in effect between Brooklyn Power and Nova Scotia Power Inc.; and
- f. Should Brooklyn Power offer by-products from its own operations on Crown lands to the Shareholders and the Shareholders purchases the by-products, the Shareholders shall sell an amount of Mixed Residue to Brooklyn Power in accordance with the terms in this Section.

8.0 STUMPAGE

- 8.1. The Licensee shall pay DNR a stumpage rate at a price per tonne basis on each of the Primary Forest Products harvested from Crown land, payable in Canadian currency. The stumpage rates for 2017 are contained in Schedule "D", attached to and forming part of this License, and shall be adjusted annually on a fiscal year basis by the Minister of Natural Resources.
- 8.2. An overhead allowance of \$ [REDACTED] /m³ has been applied in the calculation of the stumpage rates.

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9.0 SILVICULTURE PROGRAM

- 9.1 A silviculture fee of \$3.00/m³ for softwood forest products and all species of primary Biomass Fuel products and \$0.60/m³ for hardwood forest products other than Biomass Fuel, is included in the stumpage rates set out in Schedule "D".
- 9.2 When the Licensee has completed an approved silviculture program on Crown lands within its traditional area of fibre allocation under this License, DNR shall reimburse the Licensee in accordance with the silviculture rates set out in Schedule "E" for silviculture work which DNR considers to be satisfactorily completed. The Licensee is not entitled to an administration allowance. The Licensee shall not be reimbursed for any silviculture work completed in excess of the accumulated silviculture fee amount that remains available, unless DNR has agreed to such additional funding.
- 9.3 For the purposes of this License, a silviculture program that includes the

following items shall be considered for approval by DNR:

- a. Agreed eligible treatments, silviculture prescriptions and locations within the Operating Plan.
 - b. Silviculture plan signed off by the regional Crown forester.
 - c. An agreement on treatment layout.
 - d. Compliance with the *Occupational Health and Safety Act and Regulations*.
 - e. Agreed completion standards as set out in Schedule "C" that may be amended annually.
 - f. Compliance with the Sustainable Forest Initiative certification standards on the certified Crown lands.
- 9.4 DNR reserves the right to modify where site or stand conditions warrant, in consultation with the Licensee, and the technical standards for completion of silviculture. DNR also reserves the right to reasonably exercise its discretion to adjust the silviculture rate, in consultation with the Licensee, where site and forest conditions may warrant.
- 9.5 The reimbursement system for Crown lands shall parallel the private land credit system, however, reimbursement for Crown lands is done based on rates per hectare, or rates per tree, on the basis of the following, which includes, but is not limited to:
- a. DNR's intent to ensure reimbursement for work done on Crown lands is comparable with net cost incurred for cost effective and efficient work, up to set maximums.
 - b. On Crown lands, DNR's approval process exercises its control in regard to the quantity of treatment done in each category.
 - c. The credit system under the Forest Sustainability Regulations is intended to promote treatments in appropriate amounts by categories that will most effectively contribute to sustainability objectives. Any credits offered do not necessarily relate to treatment cost and funding available under the Crown program and private land program are not necessarily comparable.
- 9.6 Where the Licensee notifies DNR in writing that it does not wish to undertake an approved silviculture program or where the Licensee has not undertaken an approved silviculture program within three (3) years of payment of stumpage payable, DNR may deem the silviculture fee portion of the stumpage paid by the Licensee as forfeited to DNR for use in its regular Crown land silviculture

program.

10. **REPORTING/PAYMENT SCHEDULE**

- 10.1 The Licensee or designate shall log in to the Crown LPS weekly and submit all wood load slip information from harvest operations.
- 10.2 The information entered into the Crown LPS shall include the:
- a. DNR Block Number
 - b. Trucking Date
 - c. Trucking Company
 - d. Trucking Slip Number
 - e. Wood Load Slip Number
 - f. Destination of Load
 - g. Unit of Scale
 - h. Net Quantity
 - i. Product
 - j. Species
 - k. Stumpage Rate
- 10.3 The wood load slip information shall be completed in metric units, either tonnes or m³ solid unless otherwise agreed (stick scale). The Registry of Buyers conversion factors shall be used for all products except where a conversion factor, applicable to a specific circumstance, has been agreed upon by DNR for use on the bases of statistically sound check scaling.
- 10.4 The Licensee shall submit physical copies of all truck slips for Crown Primary Forest Products to DNR upon the request of DNR at any time.
- 10.5 DNR shall invoice, based on the information entered into the Crown LPS, at the end of each quarter in each fiscal year of this Agreement.
- 10.6 The Licensee shall pay stumpage to DNR within 90 days of invoicing for each quarter in each fiscal year of this Agreement. Late payments shall be charged interest in accordance with the *Finance Act* and may cause DNR to suspend the Licensee's operations.
- 10.7 The Licensee shall not incur any expenses that are or are intended to be a charge against DNR without the written authority of DNR and shall not enter into any contracts with any person, firm or corporation that purports to bind DNR in any manner whatsoever and any such contracts entered into by such Licensee shall not be binding on DNR.
- 10.8 The Licensee shall maintain proper and accurate records and accounts relating to the License and shall make any and all records and accounts available at all reasonable times for inspection and audit by DNR and its agents.

- 10.9 Upon request, Licensees are to provide DNR estimates of the harvest amounts of Primary Forest Products for each quarter in which information has not been entered into the Crown LPS, including the planned recipients of any wood products.
- 10.10 The Licensee shall submit shapefiles and spreadsheets summarizing all harvesting and silviculture activity for each calendar year of this Agreement before February 1st of each subsequent year, as indicated in Schedule "F". Initial submission of harvest area shapefiles will be approximate, with final submission of digitally accurate shapefiles submitted by June 30th of each year.

11.0 ROADS AND INFRASTRUCTURE

- 11.1 The Licensee with the written approval of the DNR, may be permitted to construct any roads deemed necessary on the approved site to perform the Harvest Operations designated under the license. The Licensee must adhere to the Environmental Standards for the Construction of Forest Roads and Fire Ponds in Nova Scotia and DNR Environmental Management System Standards and procedures when operating on SFI certified lands.
- 11.2 Galvanized steel or other approved culverts or a bridge are to be installed at all points on roads and skid trails where natural drainage channels are crossed.
- 11.3 The Licensee shall not have exclusive use of Crown roads or forest access roads.
- 11.4 All roads constructed shall meet DNR's standards and the Licensee is responsible for acquiring any permits and signage required for establishing a new entrance to a public highway and any permits required for stream crossings from the Nova Scotia Environment.
- 11.5 The Licensee is responsible for obtaining permission to use private roads or to obtain access road right-of-way licenses with adjacent private landowners as required.
- 11.6 The Licensee shall during and upon completion of its Forest Activities restore all pre-existing access roads on which it has operated equipment and which may have suffered damage up to a serviceable standard. This obligation shall survive for twelve (12) months following the term or termination of this License. The Licensee is responsible to ensure any existing roads or trails are not obstructed.
- 11.7 Any buildings or structures erected on the Crown Land by the Licensee, or any of its Shareholders, and any debris left on the Crown Land shall be removed by the Licensee within thirty (30) days after the completion or termination of this License. In the event that the Licensee does not remove such buildings or structures and debris from the site within this period, DNR may, without liability,

remove or demolish such buildings or structures and debris in any manner DNR may deem necessary. The Licensee shall pay all expenses and costs of removal or demolition and shall be responsible for all damage or losses caused to the site. The Licensee's obligation to observe or perform this condition shall survive the expiration or termination of this License.

12.0 SUSPENSION AND TERMINATION

- 12.1 This License may be terminated by DNR for any reason upon giving five (5) days written notice thereof to the Licensee.
- 12.2 The Licensee shall be liable for stumpage payments of any Primary Forest Products cut and removed from Crown land up to the point of termination.
- 12.3 Work under this License may be suspended by the DNR, if in the opinion of DNR, the Licensee, a Shareholder of the Licensee or any of its contractors has failed to comply with any requirement of the License. The suspension shall continue until the Licensee has demonstrated remediation to the satisfaction of DNR.
- 12.4 DNR shall not be liable to the Licensee or any of its Shareholders for any losses or costs incurred by the Licensee during any suspension. The Licensee shall be liable to DNR for any losses or costs to DNR where the Forest Activities are suspended or terminated as a result of a failure to comply with the requirements under this License.
- 12.5 This License may be immediately terminated by DNR without prior notice to the Licensee if, in the opinion of the DNR, there is sufficient cause for doing so.

13.0 INDEPENDENT CONTRACTOR

- 13.1 It is understood and agreed that this License is an authority for Fibre Allocation and Forest Activities on Crown Land and that the Licensee is engaged as an independent contractor and that neither the Licensee, its Shareholders, nor its employees, or any subcontractors, shall be deemed to be an employee, servant or agent of DNR.

14.0 DESIGNATED AGENT

- 14.1 If the Licensee performs Forest Activities on more than one Site, the Licensee shall appoint an agent to act on its behalf at each Site and the Licensee shall inform DNR of the appointment and the name of the appointee. The Licensee's agent shall be deemed to have full authority to make any decision by or on behalf of the Licensee or accept any notice as provided within the License.

15.0 LIABILITY AND INSURANCE

- 15.1 The Licensee agrees that DNR shall not be liable for any injury, including death to any person, or for the loss of or damage to any property that is caused in any way by the Licensee's performance of Forest Activities under this License unless the injury, loss or damage is caused by the negligence of any officer or employee of DNR while working within the scope of his or her employment.
- 15.2 The Licensee shall at all times indemnify and save harmless DNR and its Ministers, officers and employees from and against all claims, demands, losses, damages, and costs of any kind based upon any injury to or death of a person or damage to or loss of property arising from any willful or negligent act, omission or delay on the part of the Licensee or its servants or agents in carrying out this License.
- 15.3 The Licensee shall, at its own expense, provide general liability insurance. The insurance shall be written in such terms as will fully protect the Licensee and also NSDNR as an additional insured. The limits of coverage shall not be less than \$5,000,000.00 with respect to each occurrence or accident, \$5,000,000.00 annual aggregate, on an occurrence (not claims made) basis. The Licensee shall provide proof of such insurance annually by providing a copy of a proof of insurance to NSDNR's Regional Director. The Licensee, its contractors and sub-contractors, shall maintain in full force and effect during the performance of the Forest Activities comprehensive automobile liability insurance with a \$2,000,000 minimum.

16.0 LEGISLATIVE AND POLICY REQUIREMENTS

- 16.1 The Licensee shall register under, and comply with, all of the provisions of the *Worker's Compensation Act* for the Province of Nova Scotia and all regulations passed thereunder. The Licensee agrees to comply with all the Laws and applicable policies and codes of the Province including, but not limited to, the *Occupational Health and Safety Act (OH&S)*, the Construction Safety and Industrial Safety Regulations, the Temporary Workplace Traffic Control Regulations, and The Forest Professional: a Code of Practice for the Stewards of Tomorrow's Forests, made pursuant to the *Occupational Health and Safety Act* and comply with the Wildlife Habitat and Watercourse Protection Regulations, Environmental Management Standards and Procedures and Forest/Wildlife Guidelines and Standards for Nova Scotia when working on Crown Land.
- 16.2 Where the Licensee is subject to a directive or order made pursuant to the *Environment Act*, the *Occupational Health and Safety Act*, or any other law of the Province, DNR shall not be liable to the Licensee for any losses or costs incurred by the Licensee as a result of such a directive or order. The Licensee shall be liable to DNR for any losses or costs to DNR as a result of the Licensee's failure to meet the aforesaid requirements.

- 16.3 The Licensee shall be registered with the Nova Scotia Registry of Joint Stocks.
- 16.4 Any Contractor(s) working for the Licensee on Crown lands shall supply a letter to the Regional Forester from the Nova Scotia Workers Compensation Board indicating they are in good status, and shall supply proof of training in Emergency First Aid.
- 16.5 Any Contractor(s) working for the Licensee on Crown lands shall supply a letter to the Regional Forester from the Nova Scotia Forest Safety Society indicating they have received the required training and completed a successful OH&S audit valid for the Operating Plan time period.
- 16.6 The Licensee shall make available an individual, who is in possession of a valid Watercourse Alteration Certificate provided by Nova Scotia Environment. Such individual shall plan and oversee any and all watercourse crossings.
- 16.7 Upon request by DNR, the Licensee's Contractor(s) shall deliver to DNR, satisfactory evidence of compliance with all applicable laws.

17.0 TRADE AGREEMENTS

- 17.1 It is the intention of both the DNR and WestFor that the provisions of this License are to be solely for the more effective management of Crown Lands, and that no portion of this License shall be implemented in such a manner as to circumvent or affect any binding obligations applicable to the Province or forest product producers in Nova Scotia under a trade agreement. The obligations in this Section apply to any ownership interests the Shareholders may own or acquire in the commercial manufacture of products covered by such an agreement.
- 17.2 Notwithstanding any other provision in this Agreement, WestFor shall pay stumpage to the Province on fibre harvested from the Crown Lands calculated at rates determined by the Province to not be contrary to the provisions of any trade agreements binding upon Canada or Nova Scotia.
- 17.3 The price received by WestFor for any Crown softwood sawlogs or softwood studwood sold or exchanged with any third party shall be set at a price that fully covers Westfor's full costs of stumpage, harvesting, trucking, road building, planning, and forest management activities plus a reasonable amount of profit for WestFor.

18.0 AMENDMENT

- 18.1 This License may be amended in writing by mutual agreement signed by both parties.

19.0 ENTIRE AGREEMENT

- 19.1 This License including the Preamble and the Schedules attached or referred to shall constitute the whole agreement between the parties unless duly amended in accordance with Section 18. No representation or statement not expressly contained in this License shall be binding on either party.

20.0 GENERAL

- 20.1 The Licensee shall not assign or subcontract this License or any part thereof without prior written consent of the DNR.
- 20.2 All notices and communications to DNR in connection with this License shall be addressed as follows:

Allan Smith

Director of Resource Management
Department of Natural Resources
1701 Hollis Street, P.O. Box 698, Halifax, NS B3J 2T9

Or emailed to:

allan.smith@novascotia.ca

- 20.3 Subject to the agency provision noted above, all notices and communications to the Licensee in connection with this License shall, unless directed otherwise in writing by the Licensee, be addressed as follows:

Marcus Zwicker

General Manager
WestFor Management Inc.
109 Logan Rd., Unit 1B
Bridgewater, NS B4V 2W9

Or emailed to:

marcus.zwicker@westfor.org

- 20.4 Any notice or document mailed to DNR or the Licensee shall be deemed to have been received three (3) days following the day such notice was posted.
- 20.5 Nothing herein shall preclude the delivery of notices by means other than mailing.

- 20.6 Either party may by written notice designate a new address for notices given hereunder.
- 20.7 In the event of any dispute arising as to any matter connected with this License or the interpretation thereof, the parties shall attempt to mutually agree on the matter and failing agreement, the decision of DNR shall be final.
- 20.8 This License shall be construed and interpreted in accordance with the laws of the Province of Nova Scotia and any dispute arising under this License shall be determined within the exclusive jurisdiction of the courts of the Province of Nova Scotia.
- 20.9 This License ensures to the benefit of and is binding upon the parties hereto, their respective permitted successors and assigns.
- 20.10 No term, condition or provision hereof shall be or be deemed to have been waived by reason of any act, forbearance, indulgence, omission or event. Only an express written waiver signed by DNR shall constitute a waiver as aforesaid and each such waiver shall be conclusively deemed to be limited to the circumstances or right or remedy therein specified.
- 20.11 DNR reserves the right at any time to reject an employee of the Licensee from performing Forest Activities on the site(s) provided it has cause for doing the same.
- 20.12 Time shall be of the essence in this Agreement.
- 20.13 DNR is not liable to the Licensee for injuries, losses, expenses, or costs incurred or suffered by the Licensee as a result, directly or indirectly, of an act or omission of a person who is not a party to this License, including but not restricted to an act or omission of a person disrupting, stopping or otherwise interfering with the Licensee's operations under this License by road blocks or other means.

21.0 MI'KMAQ USERS OF LICENSED AREA

21. Section 35 of the *Constitution Act, 1982*, protects the existing Aboriginal and treaty rights of the Mi'kmaq, and the Licensee agrees that it will (i) provide the Mi'kmaq with continued access, unless otherwise posted, for traditional activities (fishing, hunting, harvesting of wood for domestic purposes); and (ii) respect Mi'kmaq culturally important sites and provide the Mi'kmaq with continued access to those identified sites.

- 21.2 The Province, Canada and the Mi'kmaq entered into an Umbrella Agreement on June 7, 2002, in which all three Parties recognized there are outstanding constitutional rights issues amongst them, including Aboriginal rights and treaty rights.
- 21.3 Pursuant to the Umbrella Agreement, on February 23, 2007 the Parties signed the Mi'kmaq-Nova Scotia-Canada Framework Agreement that established the negotiation process for the resolution of issues respecting Mi'kmaq rights and title.
- 21.4 The Licensee acknowledges that this License is subject to any negotiated agreements between the Province, Canada and the Mi'kmaq, or the Province and the Mi'kmaq with respect to such rights.
- 21.5 The Province may require the Licensee to modify Forestry Activities to accommodate Mi'kmaq rights and shall provide notice of same to the Licensee.

IN WITNESS WHEREOF the Parties have executed this License on the day and year last below written.

SIGNED, SEALED AND DELIVERED in the presence of:

Pauline Cuslier
Witness

Alm Dett
Witness

) **HER MAJESTY THE QUEEN IN RIGHT OF**
) **THE PROVINCE OF NOVA SCOTIA**, as
) represented by the Minister of Natural Resources

) Margaret Miller
) Honourable Margaret Miller
) Minister of Natural Resources

) **WESTFOR MANAGEMENT INC.**

) Marcus Zwicker
) Marcus Zwicker
) General Manager

Schedule "A"
Shareholder Allocations

Shareholder	Product	Agreement Commitment (tonnes)
AFT Sawmill	Hardwood Sawables	945
Maurice Bruhm Ltd.	Hemlock Sawables	495
Harry Freeman and Sons Ltd.	Spruce/Fir Sawables	15,825
Harry Freeman and Sons Ltd.	White Pine Sawables	9375
J.A. Turner and Sons (2012) Ltd.	Spruce/Fir Sawables	990
Ledwidge Lumber Co.	Spruce/Fir Sawables	9675
Elmsdale Lumber Co. Ltd.	Spruce/Fir Sawables	5063
Scotsburn Lumber Ltd.	Spruce/Fir Sawables	3863
Hefler Forest Products Ltd	Spruce/Fir Sawables	1305
Northern Pulp	Spruce/Fir all products	46,875
Lewis Mouldings and Wood Specialties	White Pine Sawables	4455
Louisiana Pacific	Hardwood Pulpwood	14,888
Groupe Savoie	Hardwood Sawables	1080

Great Northern Timber

Hardwood Pulpwood

3750

Note:

The Licensee is responsible to ensure all Shareholders allocations are not exceeded, including Crown wood received in previous allocations and Crown wood purchased from other Licensees

Schedule “B”

Standard Operating Procedure for Development and Approval of Crown Land Harvest and Silviculture Plans

Objective

To ensure harvest and silviculture plans for Crown land are developed using ecosystem based prescriptions, principles of Integrated Resource Management and public consultation to maximize the sustainable supply of timber and non-timber values.

Scope

This procedure covers all requirements for the development and approval of operating plans for harvest and silviculture operations on Crown land in Nova Scotia

Implementation

Licensees are required to:

- Complete a Pre-Treatment Assessment (PTA) of all areas to be included in operational plans for harvesting and silviculture using “NSDNR PTA Procedures”. The PTA must have sample points evenly distributed throughout the proposed operating area (harvest or silviculture) with sample intensity necessary to prescribe a unique treatment of a minimum of 2 hectares within the treatment area. At most, this will require 1 plot/ha with a minimum of 3 plots. The locations of these sample points will be flagged and geographic coordinates collected. Field staff collecting information must be certified Forest Ecosystem Classification (FEC) and PTA practitioners.
- Determine appropriate treatment prescriptions (harvest or silviculture) based on “NSDNR Forest Management Guides” (FMG) and either Harvest Prescription Standards (Appendix I) or Silviculture Prescription Standards (Appendix II) that properly stratify the treatment area, consistent with ecosystem based management. Where alternate prescriptions are recommended, justification for this deviation must be submitted for review and approval by NSDNR.

Links to information on NSDNR’s PTA Procedures, software and Forest Management guides can be found at <http://novascotia.ca/natr/forestry/programs/timberman/pta.asp>.

- For harvest plans, submit PTA data as specified in the “NSDNR Standard for Licensee Harvest Plan Submissions” (Schedule C). DNR requires the following summaries in order to evaluate treatment prescriptions.
 - Map (minimally submitted with start-up notice if acceptable to Regional staff).
 - PTA summary excel spreadsheet.
 - Shape file of treatment area and PTA point locations.
 - Detailed PTA information including individual point data in PTA program format if available (NSDNR, 2015).

The summaries must be emailed to the Crown Land Forester and will support the licensee’s rationale for choosing selected treatments.

- For silviculture plans, submit data as specified in the “Licensee Silviculture Plan Submission Format Requirements” (Schedule “C”). This will include the expected end result of implementing the prescription, for example, target spacing and species preference for Pre-commercial Thinning (PCT). DNR requires the following summaries in order to evaluate treatment prescriptions. The summaries will support the licensee’s rationale for choosing selected treatments.
 - Map (minimally submitted with start-up notice if acceptable to Regional staff)
 - Shape file of treatment area and PTA point locations
 - PTA summary excel spreadsheet

The summaries must be emailed to the Crown Land Forester and will support the licensee’s rationale for choosing selected treatments.
- Ensure that operating plan maps, meeting the requirements of “NSDNR Standard for On Site Operational Maps” (Schedule “C”), are in each piece of equipment at harvesting and road construction work sites and at all silviculture work sites.

DNR Regional Crown Foresters are required to:

- Evaluate and approve or change all formulated prescriptions prior to being implemented within 35 working days of submission of individual harvest plans. Annual harvest plan submission reviews will be completed by the plan approval date of January 31st of the year following the plan submission. Those requiring a field visit will be “Approved with conditions” – conditional to PTA future approval.
- Audit PTA data from harvest plans following the PTA Auditing Program work instructions.

Appendix I NSDNR Harvest Prescription Standards

Category	Prescription	Objective(s)	Standards
Partial Harvest	All Except "Final Felling"	<ul style="list-style-type: none"> • Reduce potential for wind damage to residual trees • Minimize harvest damage to residual trees • Minimize trail width and frequency • Improve the quality of stand in: <ul style="list-style-type: none"> • Species content • Stem Quality 	<ul style="list-style-type: none"> • Harvest Damage must be limited to less than 10% of the standing basal area. <ul style="list-style-type: none"> • Trees are considered to be damaged if any of the following conditions are created by the harvest: <ul style="list-style-type: none"> • Greater than 100 cm² of the bole cambium has been exposed • Greater than 1/3 of the live crown is damaged • Greater than 25% of the root system is exposed, as measured in the area defined by the drip line of the tree crown • If leaning more than a 45 degree angle (from ground level) • Extraction Trails for Commercial Thinning, Single Tree Selection and Uniform Shelterwood Harvest must be: <ul style="list-style-type: none"> • Less than 30% of the area harvested • A maximum average width of 7m to be measured bole to bole • For Group Selection and Patch Shelterwood Harvest: <ul style="list-style-type: none"> • Opening size will be as defined in FMG's • Trails connecting openings will not exceed average 7 m in width (bole to bole) • For Strip Shelterwood – Trail widths as defined in the FMGs • Leave an increased proportion of AGS • Leave an increased proportion of Long-Lived species (Eastern Hemlock, Red Oak, Red Spruce,

			<p>Sugar Maple, White Ash, White Pine, Yellow Birch)</p> <ul style="list-style-type: none"> • Leave an increased proportion of Tolerant species (Eastern Hemlock, Red Spruce, Sugar Maple)
• <u>Selection</u>	<u>Individual Tree Selection</u>	<ul style="list-style-type: none"> • Maintain or establish uneven-aged stand • Produce regeneration of shade tolerant species by leaving shade and seed source trees in the overstory • Improve the quality of the stand • Promote growth of residual trees 	<ul style="list-style-type: none"> • Remove 25 - 35% of the basal area uniformly from leave strips (excluding trails)
	<u>Group Selection</u>	<ul style="list-style-type: none"> • Maintain or establish uneven-aged stand. • Produce regeneration of shade tolerant or intermediate species by leaving shade and seed source trees in the leave areas. • Improve the quality of the stand 	<ul style="list-style-type: none"> • Remove at most 1/3 of the area (including trails) • Opening size no larger than prescribed in FMG • Maximum removal from leave areas 30%
<u>Commercial Thinning</u>		<ul style="list-style-type: none"> • Commercial harvest • Improve growth of leave trees • Improve quality of the stand 	<ul style="list-style-type: none"> • Remove 25 - 35% of the basal area uniformly from the leave strips (excluding trails)
<u>Shelterwood</u>	<u>Uniform Shelterwood</u>	<ul style="list-style-type: none"> • Establish natural regeneration with shade and seed of mature canopy. • Produce well stocked even aged stand of preferred species by removing overstory after regeneration established 	<ul style="list-style-type: none"> • Regenerating Shade Tolerant Species (EH, RS, SM): • Remove 25 - 35% of the basal area uniformly from the leave strips (excluding trails) • Regenerating Intermediate Shade Tolerant Species (RO, WA, WP, YB): <ul style="list-style-type: none"> • Removal of 35 - 45% of the basal area uniformly from the leave strips (excluding trails) • More than 60% stocking to seed trees of desired species (20 m spacing)
	<u>Systematic Patch</u>	<ul style="list-style-type: none"> • Establish natural regeneration with seed and shade of mature leave patches • Produce well stocked even aged stand of preferred species by removing leave patches after regeneration established 	<ul style="list-style-type: none"> • Up to 1/3 of the area of stand will be harvested in patches • More than 60% stocking to seed trees of desired species (20 m spacing) • Opening size no larger than prescribed in FMG

	<u>Strip</u>	<ul style="list-style-type: none"> Establish natural regeneration with seed and shade of mature leave strips Produce well stocked even aged stand of preferred species by removing leave strips after regeneration established 	<ul style="list-style-type: none"> Up to 1/3 of the area will be harvested in strips. Strip width should be no wider than recommended in FMG More than 60% stocking to seed trees of desired species (20 m spacing)
	<u>Final Felling</u>	<ul style="list-style-type: none"> Release well stocked advanced regeneration by removing mature overstory Produce well stocked even aged stand. 	<ul style="list-style-type: none"> Area is at least 60% stocked with trees > 1.3m high. See Clearcut Definition (http://novascotia.ca/natr/strategy/clear-cut-definition.asp). Damage to regeneration should not reduce stocking (2.4 m spacing) by more than 10%
<u>Clearcut</u>	<u>Seed tree</u>	<ul style="list-style-type: none"> Establish natural regeneration with seed of mature trees Create an even-aged well stocked stand of natural regeneration 	<ul style="list-style-type: none"> Between 15 and 35 (8 – 15 for yB) seed trees per hectare left of wind firm trees of desired regeneration species well distributed throughout the site
	<u>Overstory Removal - Stocked</u>	<ul style="list-style-type: none"> Release well stocked advanced regeneration by removing mature overstory Produce well stocked even aged stand 	<ul style="list-style-type: none"> Regen > 30cm height Damage to regeneration should not reduce stocking (2.4 m spacing) by more than 10%
	<u>Overstory Removal - Not Stocked</u>	<ul style="list-style-type: none"> Release existing advanced regeneration by removing overstory; where well stocked regeneration of established, preferred species does not exist, but where stand or site conditions preclude shelterwood or selection harvest. Produce well stocked even aged stand through plantation establishment and weeding if necessary. 	<ul style="list-style-type: none"> Regen < 30cm height and/or stocking <60% Damage to regeneration should not reduce stocking (2.4 m spacing) by more than 10% 60% stocking (2.4 m spacing) with established regeneration after 5 years.

Clearcut per Nova Scotia definition
<http://novascotia.ca/natr/strategy/clear-cut-definition.asp>

Not Clearcut per Nova Scotia definition
<http://novascotia.ca/natr/strategy/clear-cut-definition.asp>

Appendix II. NSDNR Crown Land Silviculture Standards

Category	Prescription	Objective(s)	Standards
<u>Plantations</u>	<u>Site Preparation</u>	<ul style="list-style-type: none"> • Create suitable microsites for successful plantation establishment where required 	<ul style="list-style-type: none"> • 90% of the area to be planted must have suitable microsites for seedling establishment
	<u>Establishment</u>	<ul style="list-style-type: none"> • Establish fully stocked stand of improved seedlings of species suited to the site where inadequate regeneration exists (Year 3 following harvest) 	<ul style="list-style-type: none"> • Stocking to planted seedlings exceeding 60% (2.4 m spacing) • Overall stocking (including naturally regenerating softwoods must exceed 80% (2.4 m spacing) • Species planted must be compatible with ecosite (see Table 1)
	<u>Weeding</u>	<ul style="list-style-type: none"> • Insure established seedlings are growing freely (year 5 following plantation establishment) 	<ul style="list-style-type: none"> • More than 90% of the planted seedlings are not overtopped by competing vegetation • Stocking to crop softwood is more than 80% (2.4 m spacing)
	<u>Pre-Commercial Thinning (PCT)</u>	<ul style="list-style-type: none"> • Insure crop trees are well spaced to maintain growth rate (year 10 following plantation establishment) 	<ul style="list-style-type: none"> • Stocking to crop softwood greater than 80% (no competing tree within 1 m) • Density 1,500-3,000 stems per hectare
<u>Natural Regeneration</u>	<u>Release</u>	<ul style="list-style-type: none"> • Insure established crop seedlings are growing freely (year 5) 	<ul style="list-style-type: none"> • More than 90% of the crop seedlings are not overtopped by competing vegetation. • Stocking to crop softwood is more than 80% (2.4 m spacing)
	<u>Pre-Commercial Thinning (PCT)</u>	<ul style="list-style-type: none"> • Increase the growth of crop trees at sapling stage • Improve Quality of stand in: <ul style="list-style-type: none"> • Species content • Stem quality • Maintain tree species diversity • Move stand towards late successional VT with an increased proportion of long-lived and tolerant species 	<ul style="list-style-type: none"> • Stocking to 2.4m spacing is greater than 80% • Density between 1,500-3,000 stems/ha • Increased proportion of AGS • Increased proportion of Tolerant Species and Long-Lived species • Maintain presence of all non-crop species • Height of crop trees between 2 and 7 m for softwoods and 6-9 metres for hardwoods • All non-crop trees more than 1/3 height of crop trees must be cut
	<u>Pruning</u>	<ul style="list-style-type: none"> • Increase the value of trees with potentially high valued sawlogs by reducing knots due to branching 	<ul style="list-style-type: none"> • Trees must be at least 15 cm in Dbh and less than or equal to 25 cm Dbh • Trees must be pruned to a minimum of 5 m • Only prune AGS sm, yb, wa, ro or wp • No more than 100 tree/ha must be pruned • Live crown ration must exceed 1/3

			<ul style="list-style-type: none"> • Harvest must not take place until trees released are of high value size • Pruning must take place at least one growing season after crop tree release
	<p><u>Crop Tree Release</u></p>	<ul style="list-style-type: none"> • Increase the growth and quality of pole sized high value trees 	<ul style="list-style-type: none"> • Release trees on at least 3 sides • Trees must be at least 15 cm in Dbh and less than or equal to 25 cm Dbh • Released trees must be AGS • Released hardwood trees (yb, sm, rm, wa, ro) must have a clear high value sawlog potential bole of at least 3m • Released softwood trees (wp) must have clear sawlog potential bole of at least 5 metres • Live Crown ratio must exceed 1/3 • No more than 100 trees/ha must be released • No Harvest until trees released are of high value size

Schedule “C” NSDNR Standard for Licensee Harvest Plan Submissions

Licensees may submit details and descriptions of proposed harvest plans to DNR in many different formats including word or pdf documents, however there is a minimum acceptable requirement. This requirement includes a map, shapefile(s) and a spreadsheet containing required data.

Map – All plans submissions must be accompanied by a map. Maps may be submitted with the start-up notice if acceptable to Regional IRM staff. Maps may be sent in pdf or jpg format but must be at a scale of 1:10,000. Maps must show lakes, watercourses, public roads and woods roads. All maps must label the county, large lakes, rivers, communities, and public highways in order for the viewer to be able to identify the location of the harvest plan. Lakes and watercourses should be blue in colour. Woods roads should be differentiated from public roads by different symbolism or colour. Crown lands must be shaded (preferably light green) and the harvest polygon clearly identifiable with the harvest method and a unique identifier shown. If the map is displaying aerial imagery as a background the harvest plan must be clearly identifiable, no shading is required, however Crown boundary lines should be shown and features labeled as above.

Shapefiles – a polygon shapefile is required for each plan submission. The shapefile requires a field eight characters in width called “BlockID” and a field 1 characters in width called “Section”. The BlockID field must be populated with the unique name or number that identifies the harvest block(s) with the first 2 digits being a county code¹. The remaining digits may include the Licensee’s unique identifier. For shapefiles with multiple polygons, each polygon must have a BlockID. The BlockID can be the same for more than one polygon if the individual harvest block has multiple polygons. If a single harvest block contains multiple polygons due to differing PTA results or treatment types, each polygon in the block should contain a unique Section. If road construction is required to access the harvest block, a separate line shapefile of the planned road location is required. This file should contain BlockID and Length. The BlockID field contains a unique name or number **not** the same as BlockID of the harvest block that the road is accessing. Length is required in meters. The location of extraction trails (if outside of harvest plan boundaries) will be submitted with the plan for approval or with the start-up notice as directed by the Regional IRM team.

Excel Spreadsheet – each harvest plan submission must be accompanied by a spreadsheet. The header of the sheet must contain the name of the licensee, location of the harvest area, county and date. The sheet must have a row for each unique combination of BlockID and Section in the shapefile (template attached).

¹ AT=Antigonish, AP=Annapolis, CB= Cape Breton, CO=Colchester, CU=Cumberland, DI=Digby, GE=Guysborough East, GW= Guysborough (St Mary’s), HX=Halifax, HN=Hants, IN=Inverness, KI=Kings, LU=Lunenburg, PI=Pictou, QU=Queens, RI=Richmond, SH=Shelburne, VI=Victoria, YA=Yarmouth

Spreadsheet column definitions and examples:

- **BlockID** – harvest block unique identifier that corresponds to the BlockID in the shapefile ex. AN150001.
- **Section** - the section code of the harvest block corresponding to the section code of a polygon in a multi-polygon harvest block submission ex. A, B, C, etc.

The following data must be provided for each Section or BlockID if it is not sectioned:

- **Plots** – the number of PTA plots completed in the section (or Block if no sections).
- **Area** – the area (in hectares).
- **VT** – the most common vegetation type as determined by the PTA and the % of the plots with this VT (PTA eg. MW2 75%).
- **Future VT** – the projected future vegetation type that will develop given the treatment.
- **ST** – the most common soil type as determined by the PTA and the % of the plots with this ST (eg. ST2-S 100%).
- **EX** – the most common exposure as determined by the PTA eg. (E = exposed; ME = moderately exposed; M = moderate; MS = moderately sheltered; S = sheltered) and the % of the plots with this EX (eg. E 80%).
- **WH** - the most common wind-throw hazard as determined by the PTA eg. L, M or H and the % of the plots with this WH (eg L, 90).
- **TBA** – the total basal area in m²/ha of trees greater than or equal to the 10 cm Dbh class.
- **AGS** – the basal area of acceptable growing stock in m²/ha of trees greater than or equal to the 10 cm Dbh class.
- **TOL** – the % of the basal area made of tolerant species (all trees).
- **Long Lived** – the % basal area made up of long lived species (all trees).
- **Species** – the species percentages by basal area eg. 45RM43RS7BF4WP (all trees).
- **Dbh Size Class** – a breakdown of the basal area by 4 dbh size classes as per PTA ex.

Dbh Size Class (cm)			
(m ² /ha)			
< 10	10 - 20	>= 25	>= 35
- **Regen Stocking** - regeneration stocking in % of Established (greater than 0.3 m tall and less than the 10 cm Dbh class) and Acceptable (all commercial species² anticipated to produce a merchantable tree) to 2.4 m spacing.
- **Mature?** – Is the stand predominately Mature (Y or N), yes or no.
- **Wildlife/Geology** - special wildlife, geologic and biological features by Category (specify location). See template for codes.
- **Rx** – the harvest prescription ex. OR, OP, IS, GS, SH, etc. See template for codes.
- **Soil Hazards** – Hazards according to the FEC Soil Guide and the % (eg. C3=30% of the area has a High-Very High Compaction Hazard) of the area associated with the hazard C=Compaction E=Erosion R=Rutting F=Forest Floor Loss. If greater than 30% of the

² White Pine, Red Pine, Jack Pine, Tamarack, Red Spruce, White Spruce, Black Spruce, Hemlock, Balsam Fir, Cedar, Trembling Aspen, Largetooth Aspen, Balsam Poplar, Yellow Birch, White Birch, Red Oak, Sugar Maple, Red Maple, White Ash.

area has one or more soil hazard rating of High-Very High must have a hazard mitigation plan detailed in the notes section.

- **Notes** – short description of user defined prescription, soils mitigation plan and/or harvest instructions eg.
 - Reasons for a User Defined Prescription (eg. overstory stand is mature to overmature and thinning will not improve stand. Blowdowns will occur due to stony soils).
 - Prescription details (see template for requirements by harvest type).
 - Soil Hazard mitigation plan.
- **Volume (tnes)** – a breakdown of the anticipated harvest volumes by species and products eg.

Volume (tnes)							
Sp/Bf		Pine3		Other SW		HW	
Studs/Logs	Pulp	Studs/Logs	Pulp	Studs/Logs	Pulp	Logs	Pulp
1,289	365	30	10	325	150		963

- **New Road Construction** – The length of new road construction required to access the block (in meters).
- **SMPs** – any Special Management Practices that will be applied e. Moose or American Martin (see template for codes).
- **ROW** – any right-of-way across other landowners that is required to access the block ex.
 - 100m of road across John Doe property required – PID 40017623.
- **Sensitive Features Within or Adjacent to the Block (see template for codes)**. If the answer is yes to any of the above features, please include in the notes how the feature is to be addressed in the operating plan.
 - **Old Forest Features** – does the block contain any old forest features? eg. numerous large old residual hemlock or adjacent old forest stand.
 - **Boundary Lines** – are there any boundary lines within or adjacent to the block?
 - **Power Lines** - are there any power lines within or adjacent to the block?
 - **Camps/Cabins/Dwellings** - are there any camps, cabins or dwellings within or adjacent to the block?
 - **Heritage/Cultural Sites** - are there any heritage or cultural sites within or adjacent to the block? eg. old foundations, archeological sites.
 - **Sensitive Species or Habitat** - are there any sensitive species or habitat within or adjacent to the bloc. eg. Raptor nests, bear wallows, and large cavity trees.
 - **Watercourses** - are there any watercourses within or adjacent to the block?
 - **Trails/Portages** - are there any trails or portages within or adjacent to the block?
 - **Research/PSP** – are there any Research PSP's, or Tree Breeding trials within the block?

3 White and Red Pine volumes go in the Pine column, Jack Pine volume goes in the Other SW column.

Crown Harvest Plan Summary

Licensee: ABC Company Location: Medway - Granite City County: Annapolis Date: #####

BlockID	Section	Plots	Area (ha)	VT	Future VT	ST	Ex	WH	Treat?	TBA	ACS	Tol	LL	Species %	Dbh Size Class (cm)				Est/Acc Regen	Mature?	Wildlife/Geol.	Rx	Soil Hazards	Notes	Volume Removal (tonne)								Road Const. (m)	SMPs	Private Land	Sensitive Features
										m ² /ha	m ² /ha	%	<10		10-20	>= 25	>= 35	%	Sp/Bf						Pine	Other SW	HW									
													ST/Log		Pulp	ST/Log	Pulp	Logs	Pulp						Logs	Pulp										
ANI50001	A	8	10.2	SH5 75%	SH5	ST2 50%	ME 100%	M 87%	N	44	12.8	55	85	55RS30WP10RM05WB	10	25	19	6	19	Y	N	SH	C3, R3	Patches work better than uniform thinning, terrain rough and slope hinders forwarding. 0.1 ha, 40% BAR, 30 m ² /ha, RS, WP. Mark boundary change to ST and minimize machine traffic to lower slope positions.	682	289	30	10	125	80	10	62	0	MM	N	N
ANI50001	B	10	5.3	TH2 80%	TH2	ST8 80%	M 100%	L 100%	N	24	10	80	90	80SM10YD10RM	2	10	12	10	40	Y	V, CT	IS	F2	30% BAR, 16 m ² /ha, SM, YB, RM	0	0	0	0	0	0	20	180	0		N	R
ANI50002		3	2.4	SP5 100%	SP5	ST3 100%	M 90%	H 70%	N	32	6	0	20	70BS20WP10RM	5	24	8	0	90	Y	ST	OR	C10, R10	Protect regeneration during harvest. Schedule harvest for dry season or when ground is frozen; minimize trail coverage and use low ground pressure machinery if harvesting on non-frozen ground.	250	100	50	100	0	0	0	20	5	WT	Y	B

VT: FEC vegetation type. ST: FEC soil type. Ex: Exposure (E= exposed; ME= moderately exposed; M= moderate; MS= moderately sheltered; S= sheltered). WH: Windthrow hazard. Treat?: Previously treated? (e.g., Plantation, PCT, CT). TBA: Total Basal Area. ACS: BA of Acceptable Growing Stock. Tol: % BA of shade Tolerant species (RS, SM, EH). LL: % BA of Long Lived species (RS, SM, EH, WP, YB, WA, RO). Species: Species by % BA. DBH Size Class: BA by Diameter class in cm. Est/Acc Regen: Established/Acceptable Regeneration stocking to 2.4m spacing for all commercial species > 0.3m tall and < 10cm dbh class. Mature: Is the stand predominately Mature? (Y/N). Wildlife/Geol: Special wildlife and geological features by category (specify location); C=Caves, K=Karst, O=Rock outcrop/Boulder fields, R=Ravine, S=Springs, ST=Streams, V=Vernal Pools, CT=Cavity Trees (trees greater than 20cm dbh with existing cavity of size suitable for nesting), D=Deer Wintering Areas, M= Mast (oak, beech, or witch hazel with mast), N=Nests (raptors, heron colonies), SR=Species at Risk/concern (<http://www.g.o.n.s.ca/natr/wildlife/biodiversity/species-recovery.asp>), W=Wildlife Concentrations, U = unique features (specify in comments). Rx: Prescription: OP=Overstorey Removal - Not Stocked, OR=Overstorey Removal - Stocked, CT=Commercial Thinning, IS=Individual Tree Selection, GS=Group Selection, SU=Uniform Shelterwood, SS=Strip Shelterwood, SP=Patch Shelterwood, ST=Seed Tree. Notes: (1) OR is only valid if regeneration exceeds 0.3m in height and stocking > 80 % (regeneration must be protected during harvest); (2) Non-clearcut treatments require prescription details: CT requires % BA removal, post treatment BA target, and species removal priority; IS requires % BA removal, post treatment BA target, and species removal priority; SS requires cut strip width and uncut strip width, % BA removal expected, and post treatment BA target; ST requires target number of trees per hectare post-harvest, species priority for leave trees, and post-treatment target BA. Also see Mersey Woodlands WI-harv-01 (altering forest development) for more information on prescription details required for SFI and FSC certified land. Soil Hazard: Indicates High to Very High Hazard of C=Compaction, R=Rutting, E= Erosion, and/or F=Forest Floor Loss for all soils identified in PTA followed by fraction of area covered (1-10 = 10-100%). All hazards with area fraction of 3 or more require notes on planned mitigation practices to avoid hazard related damage. * Volume Removal: Estimate of volume to be removed via proposed harvest method. Road Const: New road construction or significant road upgrade required; Indicate length (m) and include shapefile of proposed activity if new road is required. SMP codes: AM=American Marten, BEN= Bald Eagle Nest, BFL=Boreal Felt Lichen, CL=Canada Lynx, HC=Heron Colonies, MM=Mainland Moose, DWA=Deer Wintering Areas, WT=Wood Turtles. Private Land: Permission Required to Cross Private Land? (Y/N). Sensitive Features: Within or adjacent to the Block B=Boundary Lines, C=Camps/Cabins/Dwellings, H=Heritage/Cultural Sites, O=Old Forest Features, P=Power Lines, R=Research Trials/PSPs, S=Sensitive Species Habitat, T=Trails/Portage, W=Watercourse.

This is updated to include the soils hazards

NSDNR Standard for Licensee Silviculture Plan Submissions

Licensees may submit details and descriptions of proposed silviculture plans to DNR in many different formats including word or pdf documents, however there is a minimum acceptable requirement. This requirement includes a shapefile(s) and a spreadsheet containing required data.

Shapefiles – a polygon shapefile is required for each plan submission (UTM, Nad 83). The shapefile requires a field eight characters in width called “BlockID” and a field 1 characters in width called “Section”. The BlockID field must be populated with the unique name or number that identifies the harvest block(s) with the first 2 digits being a county code 4. For shapefiles with multiple polygons, each polygon must have a BlockID. The BlockID can be the same for more than one polygon if the individual harvest block has multiple polygons. If a single harvest block contains multiple polygons due to differing PTA results or treatment types, each polygon in the block should contain a unique Section. If road construction is required to access the harvest block, a separate line shapefile of the planned road location is required. This file should contain BlockID and Length. The BlockID field contains a unique name or number **not** the same as BlockID of the harvest block that the road is accessing. Length is required in meters.

Excel Spreadsheet – each silviculture plan submission must be accompanied by a spreadsheet. The spreadsheets for planned PCT and for proposed plantings (site prep, establishment and weeding and spacing) is found below, while spreadsheet for Crop Tree Release treatments are the same as for Harvest PTA’s. The header of the sheet must contain the name of the licensee, location of the silviculture area, county and date. The sheet must have a row for each unique combination of BlockID and Section in the shapefile (template attached).

Spreadsheet column definitions and examples:

- **BlockID** – harvest block unique identifier that corresponds to the BlockID in the shapefile ex. AN150001.
- **Section** - the section code of the harvest block corresponding to the section code of a polygon in a multi-polygon harvest block submission ex. A, B, C, etc.

The following data must be provided for each Section or BlockID if it is not sectioned:

- **Plots** – the number of PTA plots completed in the section (or Block if no sections).
- **Area** – the area (in hectares).
- **Forest Group** – the most common Forest Group by the PTA and the % of the plots with this VT (PTA eg. MW).
- **Future Forest Group** – the projected future Forest Group that will develop given the treatment.
- **Regen stocking %** – the density and stocking by species and summed by tolerant and long-lived species (all trees).

4 AT=Antigonish, AP=Annapolis, CB= Cape Breton, CO=Colchester, CU=Cumberland, DI=Digby, GE=Guysborough East, GW= Guysborough (St Mary’s), HX=Halifax, HN=Hants, IN=Inverness, KI=Kings, LU=Lunenburg, PI=Pictou, QU=Queens, RI=Richmond, SH=Shelburne, VI=Victoria, YA=Yarmouth

- **Wildlife/Geology** - special wildlife, geologic and biological features by Category (specify location). See template for codes.
- **Rx** – the silviculture prescription
 - **PCT** – spacing and species preference list
 - **Plantation**
 - **Site prep – method and objective**
 - **Establishment – species, spacing**
 - **Weeding – method and objective**
 - **Spacing – method and objective**
 - **Crop Tree Release – species preference and method and # of tree/ha to be released**
 - **Pruning – method, # trees to be released**
- **Notes** – short description of mitigating stand conditions and/or instructions eg.
 - Reasons for a User Defined Prescription
 - Prescription details (see template for requirements by harvest type)
- **ROW** – any right-of-way across other landowners that is required to access the block eg.
 - 100m of road across John Doe property required – PID 40017623
- **Sensitive Features Within or Adjacent to the Block (see template for codes)**. If the answer is yes to any of the above features, please include in the notes how the feature is to be addressed in the operating plan.
 - **Old Forest Features** – does the block contain any old forest features? eg. numerous large old residual hemlock or adjacent old forest stand.
 - **Boundary Lines** – are there any boundary lines within or adjacent to the block?
 - **Power Lines** - are there any power lines within or adjacent to the block?
 - **Camps/Cabins/Dwellings** - are there any camps, cabins or dwellings within or adjacent to the block?
 - **Heritage/Cultural Sites** - are there any heritage or cultural sites within or adjacent to the block? eg. old foundations, archeological sites.
 - **Sensitive Species or Habitat** - are there any sensitive species or habitat within or adjacent to the block? eg. Raptor nests, bear wallows, large cavity trees.
 - **Watercourses** - are there any watercourses within or adjacent to the block?
 - **Trails/Portages** - are there any trails or portages within or adjacent to the block?
 - **Research/PSP** – are there any Research PSP's, or Tree Breeding trials within the block?

Sample Summary Table for Inclusion in Silviculture Plan (PCT)

Licensee:				Location:				County:			Date:
Location	Stand	Plot Count	Area (ha)	Forest Group		Density height and release			Species Preference	Spacing (m)	Comment #
				Existing	Future	Species	Density (/ha)	Height (m)			
Shatter Lake	10	20	20	MW	SH	RS	3,000	2	RS,BF,WB	2.4	1
						BF	7,000	4			
						WB	1,000	5			
						RM	2,000	4			
Mount Thom	3	9	9	SH	SH	BF	10,000	5	RS,BF	2.4	2
						RS	5,000	3			

Sample Summary Table for Inclusion in Silviculture Plan (Planting)

Licensee:				County:				Date:				
Location	Stand	Plot Count	Area (ha)	Forest Group/Vegetation		Stocking HW (%)	Stocking SW (%)	Density height and release status by species			Reforestation species/spacing (m)	Comment #
				Existing	Future			Species	Density (/ha)	Height (m)		
Perch Lake Rd	1	10	10	IH	SH	10	10	RM	1,000	1	rS/2.1	1
								BF	500	0.2		
								WB	1,000	1.3		
Hattie Lake Rd	2	5	5	SH	SH	20	5	YB	300	0.6	rS/2.1	
								BF	100	0.5		
Comments: 1) Low stocking, move towards later successional red spruce.												

NSDNR Standard for On-Site Operational Maps

All harvest, road building and silviculture operations occurring on Crown lands must be accompanied by maps in each piece of equipment on site showing the operational plan. These maps are imperative to give information and guidance to the operators and inspectors about the intentions of the operation. Below are the **minimum** requirements for what is to be shown on the maps and/or work order documentation on site:

Harvest blocks

- The area to be harvested (ha).
- Applicable Special Management Practices to be applied, shown spatially if applicable and with notes of how it is to be applied.
- The harvest block boundaries.
- The harvest prescription and instructions of implementation.
- The Block number (DNR's).
- Existing roads and proposed road locations.
- Buffers and corridors to be applied with harvest instructions and buffer size.
- All known watercourses, preferably shown in blue.
- A North arrow or map grid.
- The scale of the map will be 1:10,000, 1:12,500 or 1:15,000.
- The extraction trail location if a trail will be outside of the harvest block boundaries.
- The location of any nearby sensitive features eg. Protected areas, raptor nests, dwellings, old forest, etc.
- Any special instructions from DNR eg. "Uranium deposit – minimize soil disturbance" or "adjacent to silviculturally treated areas".
- The locations of any temporary watercourse crossings.
- Any property boundaries in the area.
- The locations of power lines in the area.

Roads

- The location of the road to be constructed.
- Location of the harvest block to be accessed (if applicable).
- Applicable Special Management Practices to be applied, shown spatially if applicable and with notes of how it is to be applied.
- The Block number (DNR's).
- Existing roads and proposed road locations. Woods roads should be differentiated from public roads by different symbolism or colour.
- Buffers and corridors to be applied with instructions and buffer size.
- All watercourses, preferably shown in blue.
- A North arrow or map grid.
- The scale of the map will be 1:10,000, 1:12,500 or 1:15,000.

- The location of any nearby sensitive features eg. Protected areas, raptor nests, old forest, etc.
- Any special instructions from DNR eg. “sulphide bearing materials in the area – apply mitigations” or “road traverses silviculturally treated areas- minimize grubbing”.
- The locations of any temporary watercourse crossings.
- Any property boundaries in the area.
- Watercourse crossing locations

Silviculture blocks

- The area to be treated (ha).
- Applicable Special Management Practices to be applied, shown spatially if applicable and with notes of how it is to be applied.
- The silviculture block boundaries.
- The silviculture prescription and instructions of implementation.
- The Block number (DNR’s).
- Existing roads and proposed road locations. Woods roads should be differentiated from public roads by different symbolism or colour.
- Buffers to be applied.
- All watercourses, preferably shown in blue.
- A North arrow or map grid.
- The scale of the map will be 1:10,000, 1:12,500 or 1:15,000
- The location of any nearby sensitive features eg. Protected areas, raptor nests, dwellings, old forest, etc.
- Any special instructions from DNR eg. “Uranium deposit – minimize soil disturbance” or “adjacent to silviculturally treated areas”.
- The locations of any temporary watercourse crossings.
- Any property boundaries in the area.

**Schedule "D"
Stumpage Rates**

Product	April 1st 2017- March 31st 2018 Applicable Stumpage Rates		
	m3	tonnes	(imperial)
Sawlog			
Hardwood unsorted	\$		Mfbm
Hardwood #2 and btr	\$		Mfbm
Hardwood #3	\$		Mfbm
Hardwood #4	\$		Mfbm
Softwood (sp/fir)	\$		Mfbm
Softwood (White Pine)	\$		Mfbm
Softwood (Hem/L/rP/NS)	\$		Mfbm
White Pine Boltwood	\$		Cords
Studwood			
Softwood	\$		Cords
Pulpwood			
Hardwood	\$		Cords
Softwood Grade 1	\$		Cords
Softwood Grade 2	\$		Cords
Veener			
Prime Hwd	\$ 2		Mfbm
Firewood			
Hardwood	\$		Cords
Fuellogs/biomass			
Central Region			
greater than 75% Hardwood	\$		N/A
greater than 75% Softwood	\$		N/A

Silviculture Contributions are included in the rates for all agreements.

All agreements \$3.00/m3 softwood products and \$0.60/m3 hardwood products.

Included is an Overhead Allowance of \$ /m3.

(17(1))

Schedule "D"

Notes on Stumpage Rates and Forest Product Categories

Hardwood logs may be reported as all unsorted and common stumpage rate used or graded and reported as follows:

N.S. Grade Definition / Specification

Hardwood Log Grades, for Crown Stumpage rates*

All - Minimum length 7'6" (228 cm)

	Prime or better	#1 or Better	#2 or Better	#3	#4 or Pallet
Clear faces	4	3 +	2 +	2 +	Nil +
Top Dia. Min.	25cm 10"	25cm 10"	25cm 10"	20 cm 8"	18 cm 7"
Heart wood	Less than 50% dia.	Less than 50% dia.	Less than 50% dia.	Less than 50% dia.	Any

- * Buyer grades and net scale for roadside or delivered logs may differ.
- * Other defect, damage or seasonal deductions attributable to harvesting errors are not factors for Crown stumpage rates. (ie. trim, forks, sweep, flare, stain, etc.)

Schedule "D"

Definitions of Forest Product Specifications

"Biomass Fuel" means logs, bolts or pieces of wood of any size or form, from any species of hardwood or softwood tree having no higher valued potential and if originating from a forest harvest or silviculture operation shall be made only from the wood or bark of a Tree Stem from which the branches have been removed or if originating from a non-harvesting operation may be made from any portion of a tree.

"Chips" means any debarked softwood or hardwood pieces (small and thin) suitable for processing as pulpwood.

"Hardwood Pulpwood" means any hardwood bolt which:

- a. is cut from a tree of any hardwood species; and
- b. is not merchantable as a sawlog or pallet wood log, and
- c. is sufficiently free of defects so as to be merchantable for the manufacture of hardwood pulp, paper, hardboard, oriented strand board or fibre board products.

"Hardwood Sawlog" means any hardwood bolt suitable for the manufacturing of lumber or hardwood components including but not limited to flooring, wainscoting, or furniture blanks.

"Palletwood" means hardwood or softwood that is not suitable for sawing into either dimensioned softwood lumber or in the manufacture of hardwood lumber products, but is usable as low grade lumber suitable only for the manufacture of pallets.

"Softwood Pulpwood" means any softwood bolt which:

- a. is cut from a tree of any softwood species; and
- b. is not merchantable as a sawlog or studwood log; and
- c. is sufficiently free of defects so as to be merchantable as a grade in the table below.

Item	No.1 Pulpwood	No.2 Pulpwood Sp/fir	No.2 Pulpwood Other Softwood species
Length	2.44 - 6.10 meters	2.44 - 6.10 meters	2.44 - 6.10 meters
Diameter	Min. 8.0 cm (i.b.) Max 40 cm (i.b.)	Min. 8.0 cm (i.b.) Max 40 cm (i.b.)	Min. 8.0 cm (i.b.) Max 40 cm (i.b.)
Species	Spruce and fir only	Spruce and fir only	Pine, hemlock, tamarack species, mixed

Schedule "D"

Item	No.1 Pulpwood	No.2 Pulpwood Sp/fir	No.2 Pulpwood Other Softwood species
Other	No dead wood. No internal soft rot.	Maximum 10% other softwood species. Maximum 15% recently dead wood. No dry rot or sap rots. Up to 1/3 rd diameter soft rot.	Maximum 15 % recently dead wood. No dry rot or sap rots. Up to 1/3 rd diameter soft rot.
Deductions	No burned or charred wood, no forked pieces, no sap rot, sweep less than 30.5 cm.	No burned or charred wood, no forked pieces, no sap rot, sweep less than 30.5 cm.	No burned or charred wood, no forked pieces, no soft sap rot, sweep less than 30.5 cm.

“Softwood Sawlog” means any softwood bolt suitable for the manufacturing of lumber.

“Softwood Studwood” means a softwood bolt which:

- a) has a minimum length of 2.47 metres and a maximum length of 3.15 metres, unless otherwise agreed in writing by both Parties;
- b) is sufficiently straight and defect free to produce a minimum of one piece of lumber 5.0 centimetres by 7.6 centimetres and 2.44 metres in length; and
- c) has a diameter (inside bark) between 10.0 centimetres and 30.0 centimetres.

“Tree Stem” means the principal axis of a tree from which buds, shoots, and branches develop. Many Nova Scotia trees species can develop ‘forks’, and may contain two or more stems. The Tree Stem does not include the stump or wood below the root collar.

“White Pine Boltwood” means a white pine bolt which:

- a) has a maximum length of 2.60 metres, unless otherwise agreed in writing by both Parties;
- b) is sufficiently straight and defect free for the manufacture of lumber.
- c) has a diameter (inside bark) between 15.24 centimetres and 30.5 centimetres.

Schedule "E"

Crown Land Silviculture Fund

Part I Silviculture Rates Crown Lands

Silviculture rates for satisfactorily completed work.

NOTE: pre-assessment data is necessary for all treatments.

<i>Category</i>	<i>Description</i>	<i>Silviculture Rates/ha (1ha = 2.471 acres) \$/ha</i>
1.	Fill plant 300 - 900 trees per hectare	300
2.	Established Plantation	650
3.	Early Completion Control: Plantation and Natural	
	Manual:	400
	* Chemical:	Nil
4.	Plantation: Density Control and Release Trees/hectare (Pre-treatment)	
	4,000 - 12,500	220
	12,501 - 23,400	405
	23,401 - 36,800	590
	36,801 +	745
5.	Natural: Density Control and Release Trees/hectare (Pre-treatment)	
	4,000 - 12,500	370
	12,501 - 23,400	555
	23,401 - 36,800	740
	36,801 +	895

* Assistance dollars for herbicide use are not available. Licensees may apply herbicides on Crown lands, subject to Nova Scotia Environment approvals having been received.

6.	Commercial Thinning or Shelterwood cut: <i>Stand Index (Merch. Trees/m³) (all trees ≥ 9.0 cm dbh (ob))</i> <i>Range of Volume Removed (m³/ha)</i>				
	<i>SI 3</i>	<i>SI 4</i>	<i>SI 5</i>	<i>SI 6+</i>	
	< 54	< 34	< 26	< 21	350
	55-127	35-80	27-60	22-49	450
	N/A	81+	61+	50+	550

7. Forest Quality Improvement:

a)	Crop Trees Released	\$3/tree
b)	Crop Trees Pruned	300
o	Selection Management	
(i)	Single Tree Improvement or group selection (small patch cuts) <u>with tending</u> (single tree improvement)	550
(i)	Regeneration Cut (small patches only)	400

Notes:

- a) Approved Silviculture Program required.
- b) An approved Silviculture Program is not to exceed the remaining balance contributed as a portion of stumpage to the Crown Land Silviculture Fund, unless approved by the Crown Land Regional Crown Forester.
- c) See Crown Land Technical Standards.

Schedule "F"

YEAR END HARVEST COMPLETION REPORT							
Licensee:					Date Submitted (d/m/yr):		
Location	Block (#)	Harvested Area (ha)	Softwood Volume		Hardwood Volume		GIS Map No. ¹
			m3	Tonnes	m3	Tonnes	

¹ electronic GPS files required

Schedule "F"

YEAR END SILVICULTURE COMPLETION REPORT¹

Licensee:						
Location	County	Treatment	Area Treated (ha)	Trees Planted (#)	Species	GIS Map No.

¹ The deadline for submitting this report is February 1.

THIS AMENDING AGREEMENT made this *3rd* day of *April*, 2018.

BETWEEN:

HER MAJESTY THE QUEEN in right of the Province of Nova Scotia, as represented in this behalf by the Minister of Natural Resources (hereinafter referred to as "NSDNR")

OF THE FIRST PART

-AND-

Westfor Management Inc., a company incorporated under the laws of Nova Scotia (hereinafter referred to as the "Licensee")

OF THE SECOND PART

WHEREAS the parties entered into an Agreement between NSDNR and the Licensee dated October 11th, 2017 (the Agreement);

AND WHEREAS the Licensee has requested an extension of the Agreement;

AND WHEREAS the parties recognize that the fiber allocation stated in clause 4.2 and set out in Schedule "A" is required to be adjusted;

NOW THEREFORE this Amending Agreement witness that in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

1. Paragraph 2.1 of the Agreement is amended changing the term of the agreement to October 1st, 2017 until the 30th day of June 2018.
2. Schedule "A" in the Agreement is amended by changing the fibre allocation to:

Schedule A

Shareholder Allocations

Consortium Partner	Product	2017- Jun. 30, 2018 Commitment (tonnes)
AFT Sawmill	Hardwood Sawables	1,418
Maurice Bruhm Ltd.	Hemlock Sawables	743
Harry Freeman and Sons Ltd.	Spruce/Fir Sawables	23,738
Harry Freeman and Sons Ltd.	Pine Sawables	18,750
J.A. Turner and Sons (2012) Ltd.	Spruce/Fir Sawables	1,485
Ledwidge Lumber Co.	Spruce/Fir Sawables	14,513
Elmsdale Lumber Co. Ltd.	Spruce/Fir Sawables	7,594
Scotsburn Lumber Ltd.	Spruce/Fir Sawables	5,794
Hefler Forest Products Ltd	Spruce/Fir Sawables	1,958
Northern Pulp	Spruce/Fir all products	70,313
Lewis Mouldings and Wood Specialties	Pine Sawables	7,425
Louisiana Pacific	Hardwood Pulpwood	22,331
Groupe Savoie	Hardwood Sawables	1,620
Great Northern Timber	Hardwood Pulpwood	5,625

3. In all other aspects and respects, the Agreement is hereby ratified and confirmed.


IN WITNESS WHEREOF this Amending Agreement has been duly executed by DNR and the Licensee by their respective officers duly authorized in that behalf on the dates set forth below.

SIGNED, SEALED AND DELIVERED

In the presence of:




Witness



Witness


Witness

HER MAJESTY THE QUEEN in
Right of the Province of Nova Scotia



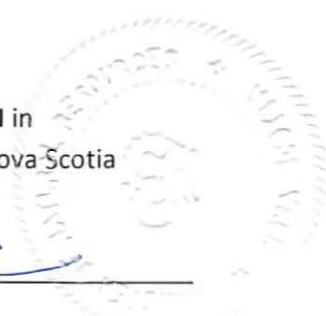
Margaret Miller
Minister of Natural Resources

Westfor Management Inc.



Per:

Per:



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THIS AMENDING AGREEMENT made this *26th* day of *June*, 2018.

BETWEEN:

HER MAJESTY THE QUEEN in right of the Province of Nova Scotia, as represented in this behalf by the Minister of Natural Resources (hereinafter referred to as "NSDNR")

OF THE FIRST PART

-AND-

Westfor Management Inc., a company incorporated under the laws of Nova Scotia (hereinafter referred to as the "Licensee")

OF THE SECOND PART

WHEREAS the parties entered into an Agreement between NSDNR and the Licensee dated October 11th, 2017 (the Agreement);

AND WHEREAS the parties entered into an extension of the Agreement dated April 3, 2018;

AND WHEREAS the Licensee has requested further extension of the Agreement;

AND WHEREAS the parties recognize that the fiber allocation stated in clause 4.2 and set out in Schedule "A" is required to be adjusted;

NOW THEREFORE this Amending Agreement witness that in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

1. Paragraph 2.1 of the Agreement is amended changing the term of the agreement to October 1st, 2017 until the 30th day of September 2018.
2. Schedule "A" in the Agreement is amended by changing the fibre allocation to:

Schedule A

Shareholder Allocations

Consortium Partner	Product	Oct. 1, 2017- Sept. 30, 2018 Commitment (tonnes)
AFT Sawmill	Hardwood Sawables	1,890
Maurice Bruhm Ltd.	Hemlock Sawables	990
Harry Freeman and Sons Ltd.	Spruce/Fir Sawables	31,650
Harry Freeman and Sons Ltd.	Pine Sawables	25,000
J.A. Turner and Sons (2012) Ltd.	Spruce/Fir Sawables	1,980
Ledwidge Lumber Co.	Spruce/Fir Sawables	19,350
Elmsdale Lumber Co. Ltd.	Spruce/Fir Sawables	10,125
Scotsburn Lumber Ltd.	Spruce/Fir Sawables	7,725
Hefler Forest Products Ltd	Spruce/Fir Sawables	2,610
Northern Pulp	Spruce/Fir all products	93,750
Lewis Mouldings and Wood Specialties	Pine Sawables	9,900
Louisiana Pacific	Hardwood Pulpwood	29,775
Groupe Savoie	Hardwood Sawables	2,160
Great Northern Timber	Hardwood Pulpwood	7,500

3. In all other aspects and respects, the Agreement is hereby ratified and confirmed.

IN WITNESS WHEREOF this Amending Agreement has been duly executed by DNR and the Licensee by their respective officers duly authorized in that behalf on the dates set forth below.

SIGNED, SEALED AND DELIVERED

In the presence of:

Pauline Cavelier

Witness

Alm Smith

Witness

Witness

HER MAJESTY THE QUEEN in
Right of the Province of Nova Scotia

Margaret Miller

Margaret Miller
Minister of Natural Resources

Westfor Management Inc.

Marcus Zuber

Per:

Per:



THIS AMENDING AGREEMENT made this *9th* day of *October*, 2018.

BETWEEN:

HER MAJESTY THE QUEEN in right of the Province of Nova Scotia, as represented in this behalf by the Minister of Lands and Forestry (hereinafter referred to as "the Department")

OF THE FIRST PART

-AND-

Westfor Management Inc., a company incorporated under the laws of Nova Scotia (hereinafter referred to as the "Licensee")

OF THE SECOND PART

WHEREAS the parties entered into an Agreement between NSDNR and the Licensee dated October 11th, 2017 (the Agreement);

AND WHEREAS the parties entered into an extension of the Agreement dated April 3, 2018;

AND WHEREAS the parties entered into an additional extension of the Agreement dated June 26, 2018;

AND WHEREAS the Licensee has requested further extension of the Agreement;

AND WHEREAS the parties recognize that the fiber allocation stated in clause 4.2 and set out in Schedule "A" is required to be adjusted;

NOW THEREFORE this Amending Agreement witness that in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

1. Paragraph 2.1 of the Agreement is amended changing the term of the agreement to October 1st, 2017 until the 30th day of September 2019.
2. Schedule "A" in the Agreement is amended by changing the fibre allocation to:

Schedule A
Shareholder Allocations

Consortium Partner	Product	Oct. 1, 2017- Sept. 30, 2019 Commitment (tonnes)
AFT Sawmill	Hardwood Sawables	3,780
Maurice Bruhm Ltd.	Hemlock Sawables	1980
Harry Freeman and Sons Ltd.	Spruce/Fir Sawables	63,300
Harry Freeman and Sons Ltd.	Pine Sawables	50,000
J.A. Turner and Sons (2012) Ltd.	Spruce/Fir Sawables	3,960
Ledwidge Lumber Co.	Spruce/Fir Sawables	38,700
Elmsdale Lumber Co. Ltd.	Spruce/Fir Sawables	20,250
Scotsburn Lumber Ltd.	Spruce/Fir Sawables	15,450
Hefler Forest Products Ltd	Spruce/Fir Sawables	5,220
Northern Pulp	Spruce/Fir all products	187,500
Lewis Mouldings and Wood Specialties	Pine Sawables	19,800
Louisiana Pacific	Hardwood Pulpwood	59,550
Groupe Savoie	Hardwood Sawables	4,320
Great Northern Timber	Hardwood Pulpwood	15,000

3. In all other aspects and respects, the Agreement is hereby ratified and confirmed.

IN WITNESS WHEREOF this Amending Agreement has been duly executed by the Department and the Licensee by their respective officers duly authorized in that behalf on the dates set forth below.

SIGNED, SEALED AND DELIVERED

In the presence of:



Witness



Witness

Witness

HER MAJESTY THE QUEEN in
Right of the Province of Nova Scotia



Iain Rankin
Minister of Lands and Forestry

Westfor Management Inc.



Per:

Per: