

**Licensee Performance  
Evaluation  
2007 - 2012**

## **INTRODUCTION**

There are ten Crown Timber Licenses within New Brunswick. These are managed by four forestry companies through Forest Management Agreements with the Department of Natural Resources under the authority of the *Crown Lands and Forests Act*. License 5 (the Kent License) has been without an industrial Licensee during most of this period and has been managed by a team directed by the Department of Natural Resources. See Table 1 for a listing of Crown Timber Licenses and the associated Licensees.

The management system, established under the *Crown Lands and Forests Act*, is monitored by the Department of Natural Resources on behalf of government and the citizens of New Brunswick. Under this system government sets objectives and standards for the management of provincial Crown lands, and the Licensees are responsible to plan and implement the various activities required to achieve those objectives.

The *Crown Lands and Forests Act*, requires the Minister of Natural Resources to evaluate Licensee forest management performance at five-year intervals. Performance evaluation results are used in the Minister's decision to extend the length of the Forest Management Agreement for each license. Performance reviews were conducted in 1987, 1992, 1997, 2002 and in 2007. The review of the sixth five-year management period is now complete. This review evaluated Licensee performance with respect to the following components that look at implementation of the 2007 Management Plan (2007 - 2012 Activities)

- a) Harvesting
- b) Silviculture
- c) Biodiversity
- d) Working Near Water
- e) Special Area Management

A description of each component, the associated performance measurement criteria, and thresholds of acceptance for each is outlined in Appendix 1.

A summary of Licensee performance with respect to each of the five evaluation components is presented in Table 2. The following narrative provides additional detail for each component.

## **HARVESTING**

Licensee performance with respect to timber harvesting was assessed through the following three indicators.

Indicators 1 and 2 assessed the total volumes of spruce, fir, jack pine and hardwood, respectively; that were sustainably harvested on the entire license. Both indicators were successfully addressed by all licensees.

Indicator 3 assessed the amount of commercial thinning conducted in the General Forest relative to the area approved in the management plan but is only measured where more than 600 ha per period is planned. That only occurred on J.D. Irving Licenses 6 & 7 and this indicator was successfully addressed by the Licensee.

## **SILVICULTURE**

Indicators 4 and 5 assessed how well Licensees complied with the prescribed levels of softwood planting and pre-commercial thinning, respectively, on their Crown licenses. It is noted that both indicators were successfully implemented on all licenses.

Indicator 6 (remedial treatment) measures how well licensees thinned over dense plantations or re-planted insufficiently stocked plantations to enable them to meet established standards. All licensees successfully addressed this indicator.

## **BIODIVERSITY**

Maintenance of Vegetation Communities (Indicator 7) and Wildlife Habitat Types (Indicator 8) are important components of biodiversity on Crown land. All licensees are to be fully recognized as both indicators were successfully implemented on all Crown licenses.

## **WORKING NEAR WATER**

Indicators 9 & 10 focus on the protection of water quality and aquatic habitat on Crown land. This was addressed by licensees through maintenance of watercourse buffer zones, installation of watercourse crossings and the respect for watercourses when conducting harvest operations. These components are measured by the DNR Forest Audit Group as part of the Forest Operations Compliance Audit. The performance threshold for all these indicators was successfully met on all 10 licenses.

## **SPECIAL AREA MANAGEMENT**

Indicator 11 focuses on Special Management Areas that are maintained on Crown land to provide a variety of non-timber values including wildlife habitat, vegetation communities and Protected Natural Areas. The measure for this indicator is firmly linked to performance indicators in the Forest Operations Compliance Audit as conducted by the DNR Forest Audit Group. The performance threshold for this indicator was successfully met on all 10 licenses.

**TABLE 1**  
**CROWN TIMBER LICENSES AND ASSOCIATED LICENSEES**

<b>License Name</b>	<b>Licensee</b>
Upsalquitch	A.V. Cell Inc.
Nepisiguit	Fornebu Lumber Company Inc.
Lower Miramichi	Fornebu Lumber Company Inc.
Upper Miramichi	Fornebu Lumber Company Inc.
Kent	DNR Kent License Management Team
Queens-Charlotte	J. D. Irving, Limited
Fundy	J. D. Irving, Limited
York	A.V. Nackawic Inc.
Carleton	Twin Rivers Paper Company
Restigouche-Tobique	Twin Rivers Paper Company

**TABLE 2. RESULTS OF LICENSEE PERFORMANCE FOR THE PERIOD 2007-12.**

Components of the Evaluation Criteria	Implementation of the 2007 Forest Management Plan		Acceptable Threshold	Licensee Performance (Percent)									
	No.	Performance Measurement		Lic 1	Lic 2	Lic 3	Lic 4	Lic 5	Lic 6	Lic 7	Lic 8	Lic 9	Lic 10
Harvesting	1	Total Volume of Softwood Harvested from the Entire License	≤ 101%	89	90	98	98	98	80	93			
	2	Total Volume of Hardwood Harvested from the Entire License	≤ 101%	88	58	98	98	93	95				
	3	Commercial Thinning Conducted in the General Forest	≥ 75%	n/a	n/a	n/a	76	n/a	n/a				
Silviculture	4	Softwood Planting Conducted in the General Forest	≥ 95%	99	96	97	96	96	100				
	5	Pre-Commercial Thinning Conducted in the General Forest	≥ 95%	97	105	102	102	104	104				
	6	Remedial Treatment of Plantations in the General Forest	≥ 95%	98	100	100	100	96	97				
Biodiversity	7	Maintenance of Vegetation Communities on the License	≥ 95%	pass	pass	pass	pass	pass	pass				
	8	Maintenance of Wildlife Habitat Types on the License	≥ 95%	pass	pass	pass	pass	pass	pass				
Water	9	Compliance with Buffer Zone Standards	<3 Non-Comp	pass	pass	pass	pass	pass	pass				
	10	Compliance with Watercourse Crossing Standards	<5 Non-Comp	pass	pass	pass	pass	pass	pass				
Special Area Mgt.	11	Compliance With Forest Operations in Special Management Areas	<7 Non-Comp	pass	pass	pass	pass	pass	pass				

## **APPENDIX 1**

### **LICENSEE PERFORMANCE INDICATORS AND THRESHOLDS.**

## LICENSEE PERFORMANCE EVALUATION (Criteria & Indicators for the 2012 Review)

July, 2010

The *Crown Lands and Forest Act* requires that the Minister of Natural Resources evaluate the forest management performance of each Crown Timber Licensee at the end of each five-year interval. Performance evaluation results are used in the Minister's decision to extend the length of the Forest Management Agreements. Performance reviews have been conducted every 5 years since 1987 and the last scheduled review occurred in 2007 for the period from 2002-2007.

The purpose of this document is to identify the criteria and indicators for the review that will occur in 2012 to cover the 2007-2012 period. The following addresses the four key elements of the evaluation methodology.

Based on changed management strategies agreed to by DNR and Licensees, the original Licensee Performance document dated January 8, 2008 has been modified and replaced by what follows. The changes were necessary given new approaches to Deer Wintering Area management and modifications made to the Conservation Forest. These changes have resulted in the number of Indicators reduced from 20 to 11.

### **WHO IS BEING EVALUATED?**

The Licensee Company is being evaluated, not individuals within the company.

### **WHO IS MAKING THE EVALUATION?**

The Minister of Natural Resources makes the formal evaluation using information provided by Departmental staff. This information is a compilation of data collected for the various performance criteria during each year of the five-year period, and communicated to Licensees through annual review sessions

### **WHAT IS THE TIMING OF THE EVALUATION?**

The formal evaluation will be performed on each License by October 1, 2012. In keeping with the ISO 14001 Standard for Environmental Management Systems for all Crown Licenses, regular measurements of the indicators can be made at any time to track performance. This is a critical element that will allow Licensees the opportunity to adjust and improve their operations over the five-year period. DNR will participate in this process on an annual basis by reviewing interim results with Licensees and signing-off on each data set by December 31 each year.

### **WHAT ARE THE EVALUATION CRITERIA?**

The evaluation of performance addresses the implementation of the 2007 Management Plan and there are 11 Indicators, organized under 5 separate Criteria that will be used to measure Licensee performance in 2012.

### **CROWN LAND OBJECTIVES: THE VISION DOCUMENT**

In 1994, DNR introduced a document entitled "A Vision for New Brunswick Forests: Goals and Objectives for Crown Land Management". The Vision document outlines the goals and objectives for Crown land forest management including timber, wildlife habitat, biodiversity conservation and water quality. The Vision document was last updated in 2005 and will be updated periodically to

provide the foundation for the development and evaluation of the implementation of each subsequent management plan.

Achievement of the management objectives identified in the 2005 Vision document hinges upon implementation of the management strategy approved in the 2007 Forest Management Plan. This strategy is the product of an array of management activities and their combined influence on the development of the forest. Therefore, the performance assessment addresses how successful the Licensee was at implementing the management activities between 2007 and 2012 as identified in the 2007 Management Plan.

### **LICENSEE PERFORMANCE CRITERIA AND INDICATORS**

The following 5 Criteria and 11 Indicators will form the measure of Licensee Performance Evaluation in 2012. The information used in the evaluation will be accumulated over the period April 1, 2007 to March 31, 2012:

#### **HARVESTING**

Licensee performance with respect to timber harvesting will be assessed through the following three indicators.

Indicators 1 and 2 assess the total volumes of spruce, fir, jack pine and hardwood, respectively; that were sustainably harvested on the entire license. Indicator 3 assesses the amount of commercial thinning conducted in the General Forest relative to the area approved in the management plan but is only measured where more than 600 ha per period is planned.

The database for this evaluation component will include harvest volumes from April 1, 2007 through to, and including, March 31, 2012 as determined from e-scale. First Nations allocations and harvest levels are not included in any of the performance evaluation calculations.

**Indicator 1** The SPFJP volume harvested from the entire License during the period, as a ratio of the allocated volumes in Schedule F. **Performance is successful with a ratio less than or equal to 1.01.**

$$\frac{\text{Total SPFJP volume from the entire License}}{\text{Total Allocated volumes in Schedule F}} \leq 1.01$$

**Indicator 2** The HWD volume harvested from the entire License during the period, as a ratio of the allocated volumes in Schedule F. **Performance is successful with a ratio less than or equal to 1.01.**

$$\frac{\text{Total HWD volume from the entire License}}{\text{Total Allocated volumes in Schedule F}} \leq 1.01$$

**Indicator 3** The total area of Commercial Thinning (CT) completed in the General Forest on the License during the period compared to the total area of CT in the General Forest approved in the Management Plan\*. **Performance is successful with a ratio greater than or equal to 0.75.**

$$\frac{\text{Total area of CT in the General Forest}}{\text{Total CT approved for the General Forest in the Management Plan}} \geq .75$$

*\*Note: This indicator will not apply if there are less than 600 ha per period forecast in the management plan*



## SILVICULTURE

The approved 2007 Management Plans have identified, for the General Forest, minimum levels of softwood planting and pre-commercial thinning for each License. Implementation of these levels may, however, be constrained by the availability of seedlings and silviculture funding. The level of silviculture funding and seedling availability will be used to establish the annual silviculture target area for planting and pre-commercial thinning that is possible for each License.

In addition, for 2007 Management Plan wood supply expectations to be met, plantations must develop as forecast and be available for harvest at the designated time and volume. To achieve this, standards have been established (5<sup>th</sup> Year Plantation Status and 10<sup>th</sup> Year Plantation Survey) to differentiate stand stocking, competition, and density conditions under which yield expectations will be met. Plantations that do not meet these standards must be remedially treated during the period. The document entitled "Evaluating Licensee Performance: Remedial Plantation Treatment" details the process and assessment procedures used to identify plantations requiring remedial treatment.

For silviculture, the period for evaluation may be extended to September 30, 2012 to allow for treatment of additional areas arising from silviculture reconciliation and 5<sup>th</sup> and 10<sup>th</sup> year assessment.

**Indicator 4** The total area of softwood planting in the General Forest on the License completed during the period, as a ratio of the total planting target area established for the period. **Performance is successful with a ratio greater than or equal to 0.95.**

$$\frac{\text{Total area of softwood planting in the General Forest}}{\text{Total planting target for the General Forest}} \geq .95$$

**Indicator 5** The total area of pre-commercial thinning in the General Forest on the License completed during the period, as a ratio of the total pre-commercial thinning target area established for the period. **Performance is successful with a ratio greater than or equal to 0.95.**

$$\frac{\text{Total area of pre-commercial thinning in the General Forest}}{\text{Total pre-commercial thinning target for the General Forest}} \geq .95$$

**Indicator 6** The area of all plantations that were remedially treated during the period as a ratio of the area of all plantations requiring treatment as per DNR standards. **Performance is successful with a ratio greater than or equal to 0.95.**

$$\frac{\text{Area of all plantations receiving remedial treatments}}{\text{Area of all plantations requiring remedial treatments}} \geq .95$$

## BIODIVERSITY

Maintenance of Vegetation Communities and Wildlife Habitat Types are important components of biodiversity on Crown land. The VISION document defines a minimum area for each Vegetation Community and Wildlife Habitats Type that must be maintained on each License.

**Indicator 7** The area of each Vegetative Community (VC) maintained on the License as a ratio to the required levels of each Vegetative Community approved in the management plan. **Performance is successful with a ratio for each Vegetation Community that is greater than or equal to 0.95.**

$$\frac{\text{Area of VC maintained on the License}}{\text{Required levels of each VC approved in the management plan}} \geq .95$$

**Indicator 8** The area of each Wildlife Habitat Type (WHT) maintained on the License as a ratio to the required levels of each Wildlife Habitat Type approved in the management plan. **Performance is successful with a ratio for each Wildlife Habitat Type that is greater than or equal to 0.95.**

$$\frac{\text{Area of WHT maintained on the License}}{\text{Required levels of each WHT approved in the management plan}} \geq .95$$

## WORKING NEAR WATER

Watercourse and wetland<sup>1</sup> buffer zones are maintained to protect water quality, aquatic habitat and other aesthetic values. The Licensee is responsible for maintaining buffer zones that follow standards set in the Forest Management Manual or are covered by the Clean Water Act.

To protect water quality and aquatic habitat, machine use in and adjacent to watercourses and wetlands is not permitted, except for watercourse crossing construction where strict standards govern their use. The Licensee is responsible to ensure that road and crossing construction is restricted to locations that meet Departmental standards.

Watercourse and wetland crossing standards are designed to provide unrestricted fish passage, the ability to discharge low, normal, and high water events while maintaining bank stability and limiting the addition of sediment into the watercourse. The Licensee is responsible for installing watercourse and wetland crossings to standards identified in the FMM and all relevant Provincial and Federal acts and regulations.

It should be noted that, unlike previous Licensee Performance Evaluations, the measure for the indicators in this section are firmly linked to Performance Measures found in the Forest Operations Compliance Audit. In addition, these indicators will not be assessed on a percentage basis but instead will be measured on a pass or fail basis only.

<sup>1</sup> *The wetland types that are considered in performance evaluation include: bog, fen, shrub, emergent and aquatic bed. Forested wetlands are not included.*

**Indicator 9** *Buffer Zones:* There are 2 Performance Indicators from the Forest Operations Compliance Audit that will be used to assess Licensee Performance with regard to Watercourse buffers:

**5.1.1 The buffer width is appropriate for the wetland or watercourse.**

**5.1.2 The buffer zone is harvested to standard**

Over the 5 years of this evaluation, Licensees are allowed a maximum of 2 major non-compliance assessments in each of these audit performance indicators, but no more than 3 in total, to pass this indicator.

**Indicator 10** *Watercourse Crossings:* There are 4 Performance Indicators from the Forest Operations Compliance Audit that will be used to assess Licensee Performance with regard to Watercourse crossings:

**5.2.2 The watercourse crossing location is to standard**

**5.2.3 The watercourse crossing structure in a natural watercourse has been installed “in-the-dry”**

**5.2.4 The appropriate watercourse crossing structure has been installed while maintaining the integrity of the watercourse and stability of the watercourse banks**

**5.3.1 Existing watercourse crossing structures with identified environmental or liability issues are dealt with in an appropriate manner**

Over the 5 years of this evaluation, Licensees are allowed a maximum of 2 major non-compliance assessments in each of these audit performance indicators, but no more than 5 in total, to pass this indicator.

## **SPECIAL MANAGEMENT AREAS**

Special management areas are maintained on Crown land to provide a variety of non-timber values including:

- Wildlife habitat
- Vegetation communities
- Protected natural areas

The Licensee is responsible to manage these areas as per the objectives defined for Crown land management

It should be noted that, unlike previous Licensee Performance Evaluations, the measure for the indicators in this section are firmly linked to Performance Measures found in the Forest Operations Compliance Audit. In addition, these indicators will not be assessed on a percentage basis but instead will be measured on a pass or fail basis only.

**Indicator 11** *Special management areas:* There are 5 Performance Indicators from the Forest Operations Compliance Audit that will be used to assess Licensee Performance with regard to special management Areas:

**6.1.1 OSFH harvest to standard**

**6.1.2 Deer Wintering Area harvest to standard**

**6.1.4 Harvesting in and around raptor and heron nesting sites is to standard**

**6.2.1 Vegetation community harvest to standard**

**6.3.1 Harvesting and road construction conducted within a protected area is to standard**

Over the 5 years of this evaluation, Licensees are allowed a maximum of 2 major non-compliance assessments in each of these audit performance indicators, but no more than 7 in total, to pass this indicator.