

**Morice and  
Lakes  
Timber  
Supply  
Areas**

# **Sustainable Forest Management Report**

(Reporting Period: April 1, 2008 – March 31, 2009)



*November 23, 2009*



Sustainable Forest Management Report

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## Morice Timber Supply Area

British Columbia  
Canada



## Introduction

This document is the sixth annual **Sustainable Forest Management Report** for the **Morice & Lakes Innovative Forest Practices Agreement** (M&L IFPA) and addresses five years of reporting **sustainable forest management (SFM)** indicators for the Morice Timber Supply Area (TSA).



A substantial amount of investment and effort has gone into the development of an *SFM Plan* for the TSA. With implementation of the SFM Plan now underway, a significant amount of work is required to ensure that the forest management methods and practices being used are aligned with the SFM Plan and that they are performing as expected.



The SFM Plan outlines SFM performance indicators and targets that the partner licensees of the M&L IFPA have oriented with their forest management operations. An important aspect of SFM is continual improvement, and the monitoring and reporting of measurable SFM indicators is a critical element in evaluating the overall SFM system being used and seeking opportunities for its improvement.

This summary document provides an overview of the M&L IFPA process to date and presents a synopsis of the results of indicator monitoring and reporting from April 1<sup>st</sup>, 2008 to March 31<sup>st</sup>, 2009.

## The Morice & Lakes Innovative Forest Practices Agreement

The M&L IFPA was awarded in 1999 and is a partnership between six regional forest licensees (Babine Forest Products, Canadian Forest Products, Decker Lake Forest Products, Fraser Lake Sawmills, Houston Forest Products, and L&M Lumber) and BC Timber Sales operating in both the Morice and the Lakes Timber Supply Areas. The overall IFPA program was designed by the Province of British Columbia to support licensees in exploring new forest management ideas within an operational setting – with the intent to enhance timber supplies, improve community stability, and better integrate social and environmental values.



The provincial **IFPA program** was designed to enable licensees to explore new forest management ideas in an operational setting – to enhance timber supplies, community stability and social and environmental values.

The program was launched to advance seven goals of government:

*Develop socially acceptable forest management plans and practices;*

*Conserve environmental values;*

*Increase timber supply;*

*Improve the knowledge base to achieve specific forest management objectives;*

*Implement a results-based approach to management;*

*Communicate IFPA results to influence forest management; and*

*Promote tenure reform.*

## Sustainable Forest Management and the M&L IFPA



The principle behind sustainable forest management is to manage the forest ecosystem towards achieving a balance between social, ecological and economic values; doing so in a manner that satisfies current needs while still allowing future generations to enjoy similar benefits means planning responsibly – with insight, innovation and adaptability.

In Canada, a national framework for SFM has been developed by the *Canadian Council of Forest Ministers* (CCFM) that outlines six national criteria for SFM in Canada. In order to be applicable in the diverse local conditions and situations found across Canada, local-level values, objectives, indicators and targets are developed based on the CCFM criteria.

Developing and implementing SFM Plans for both the Morice and the Lakes TSAs is the central purpose of the M&L IFPA. These SFM Plans have been developed using enhanced approaches to public involvement, forest productivity, and natural disturbance-based management, and they are the instruments that enable the achievement of the M&L IFPA's goals.



### Canadian Council of Forest Ministers' Criteria for SFM

1. Conservation of Biological Diversity
2. Maintenance and Enhancement of Forest Ecosystem Condition and Productivity
3. Conservation of Soil and Water Resources
4. Forest Ecosystem Contributions to Global Ecological Cycles
5. Multiple Benefits to Society
6. Accepting Society's Responsibility for Sustainable Development



## M&L IFPA Public Involvement Process

The Morice & Lakes IFPA includes a significant public involvement component. In developing the SFM Plans for the two TSAs, over 100 meetings were held with local participants who represented a wide range of stakeholder interests. Well over 200 people with an interest in how local resources are managed have contributed their knowledge and expertise to the development of the SFM Plans; these dedicated volunteers from the public have helped develop the goals, objectives and indicators needed to deliver the M&L IFPA SFM Plans.

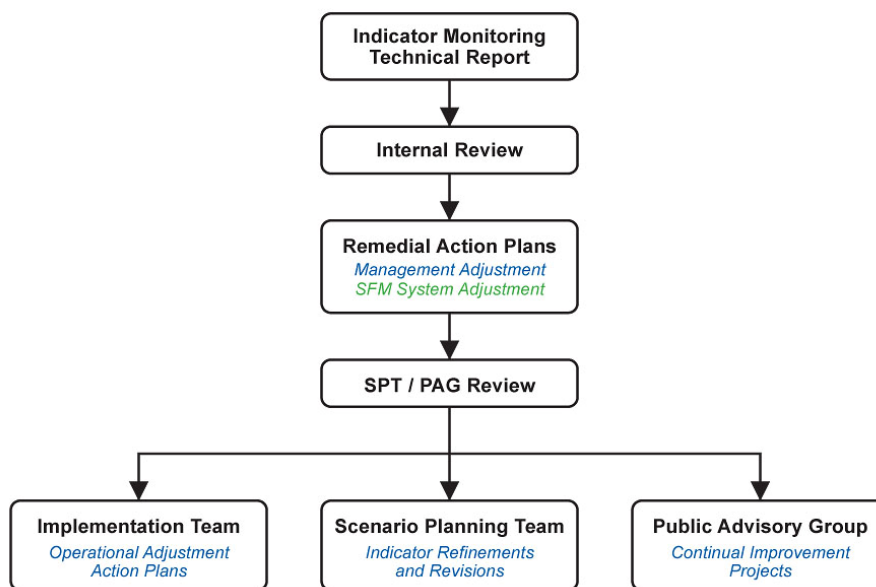


## M&L IFPA Continual Improvement Process

Continual improvement includes the incorporation of new information and knowledge as well as modifications to the SFM system as a result of what is learned from indicator monitoring. Indicator results provide a means to evaluate how well management objectives are being met, and determine whether desired values are being achieved. The continual improvement process may also reveal unforeseen issues with the SFM system being used. Addressing those issues may require adjusting the SFM system in part, or as a whole.

As part of the M&L IFPA continual improvement process (flowchart at right), a Technical Indicator Report is prepared to support each SFM Plan in terms of indicator monitoring, reporting and continual improvement.

The Technical Indicator Report compiles updated information in order to observe how management and practices are performing in relation to the indicator targets that have been established. This provides feedback to evaluate whether management and practices have been effective in achieving the indicator targets or whether adjustments are needed.



Once assembled, this information is reviewed with the Public Advisory Group(s) for their input and feedback. To ensure consistency and enable year-to-year comparisons, the licensees – and the M&L IFPA – report indicator status based on Standard Operating Procedures established for indicator reporting. In addition, comments and recommendations are provided by the licensees that assist the M&L IFPA in evaluating each indicator and making any changes that may be required. This information supports the M&L IFPA in making improvement recommendations for each indicator. Such recommendations can include operational adjustments, refinements to indicators, and continual improvement projects.

## Applications of the M&L IFPA SFM Plans

Given the significant amount of investment and stakeholder involvement in their development, the SFM Plans for the M&L IFPA have been built to suit multiple applications and requirements. As such, the SFM Plans are linked to the following programs and processes:

### *IFPA Requirements*

The primary purpose of the SFM Plans (and accompanying documents) is to provide a strategic and supporting role for the Forestry Plan required for Innovative Forest Practices Agreements under Section 59.1 of the Forest Act. ▶

### *BC Forest and Range Practices Act*

Under the BC Forest and Range Practices Act, these SFM Plans can be used to support results and/or strategies contained in Forest Stewardship Plans that are submitted by forest licensees.



### *Forest Investment Account*

Under the Forest Investment Account (FIA) system, the SFM Plans provide Tweedsmuir Forest Ltd with the strategic direction to guide and support FIA investments (i.e. Land Based Investment Rationale).

### *Forest Certification Requirements*



These SFM Plans have been developed to be “certification enabling”. As such, they follow the nationally recognized Canadian Council of Forest Ministers framework for SFM. M&L IFPA licensees have been able to take the SFM Plans and utilize them – as a whole, or in part – to meet voluntary forest certification standards (e.g. CSA SFM Z809-2002). To date, three of the M&L IFPA licensees have achieved certification under voluntary and independent SFM forest certification processes.

### *BC Government Sustainable Resource Management Planning Processes*

Both of the SFM Plans have been integrated with the Land & Resource Management Plans developed by the Ministry of Agriculture and Lands’ Integrated Land Management Bureau (ILMB) for the Morice and Lakes planning areas. As such, there has been an effective exchange of learning and information between the M&L IFPA and the ILMB planning processes. Where applicable, the M&L IFPA indicator targets have been developed to be consistent with the Land & Resource Management Plan (LRMP) guidelines. In addition, the M&L IFPA has adopted some objectives from Sustainable Resource Management Plans (SRMPs).



### *Bark Beetle Management Strategies*



Given that the landscapes within the M&L IFPA are severely impacted by bark beetles, the SFM Plans have integrated Bark Beetle Management Strategies for the M&L IFPA area. The Plans include specific indicators and targets to address sustainable forest management in the midst of significant bark beetle infestations.

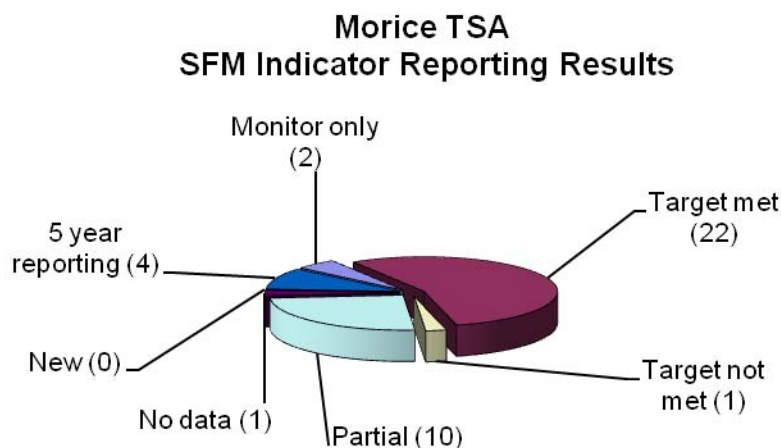
## Indicator Reporting for the M&L IFPA

This is the sixth document prepared which summarizes the annual M&L IFPA indicator reporting results. The direct application of SFM in the M&L IFPA supports ongoing efforts to make improvements in the reporting process as more information is gained and understood about SFM performance monitoring using indicators.



### Summary of Reporting Results – Morice TSA

Figure 1. SFM Indicator Reporting Results (Morice TSA)



The categories listed on the charts are as follows:

**“Target met”** – This refers to the number of indicators where the targets have been met (as specified in the SFM Plan).

**“Partial”** – This refers to the number of indicators where at least one licensee has not met the target (as specified in the SFM Plan). However, the majority of licensees have met their targets.

**“Monitor Only”** – This refers to the number of indicators where targets are not required. These indicators are reported for general interest only and performance assessments are not completed.

**“No Data”** – This refers to the number of indicators where data were not available in order to generate the modelling results (e.g. roads updates). It is anticipated these data will be in available for the next reporting period.

**“5 year reporting”** – This refers to the number of indicators that are being reported every 5 years.



**“Target not met”** – This refers to the number of indicators where the targets have not been met (as specified in the SFM Plan).

**“New”** – This refers to the number of new indicators that have been added during this reporting period. As such, monitoring results for new indicators will be reported in the next period.

**“Dropped”** – This refers to the number of new indicators that have been dropped during this reporting period. As such, monitoring results for dropped indicators will not be reported in the future.

Tables 1 – 6 shown on the subsequent pages relate to the above chart (Figure 1) and summarize the reporting results for each of the SFM indicators (in the categories described above).

Table 1. Morice TSA Indicators (targets met)

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Number of communications by licensee	M02	Yes	The targets have been met. No further recommendations
Number of participation opportunities by opportunity type	M04	Yes	The targets have been met. No further recommendations
Number of aboriginal participation opportunities by licensee	M05	Yes	The targets have been met. No further recommendations
Number of continual improvement–related projects in the DFA by licensee	M06	Yes	The targets have been met. No further recommendations
Percent of cut blocks harvested that are consistent with riparian management commitments by licensee	M10	Yes	The targets have been met. Update the indicator reporting SOP to align with the new reporting framework for this indicator.
Percentage of Blocks and Roads Harvested Annually by Licensee that are Consistent with the Visual Quality Objective (VQO)	M12	Yes	The targets have been met. The 2008/2009 reporting period is the first period reporting indicator M12 as an operational indicator.
Percent area retained in WTR by licensee annually	M15	Yes	The targets have been met. No further recommendations

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Percentage of AAC harvested by licensee	M20	Yes	The targets have been met. No further recommendations
Ratio of annual mill consumption to AAC apportionment harvested by licensee	M21	Yes	The targets have been met. No further recommendations
Percentage of blocks meeting NAR disturbance objectives by licensee	M23	Yes	The targets have been met. No further recommendations
Percentage of total goods and services provided by local vendors by licensee	M24	Yes	The targets have been met. No further recommendations
Percent of gross forest area converted to permanent access by licensee	M25	Yes	The targets have been met. No further recommendations
Percentage of forest management commitments completed on time resulting from consultations regarding non-timber features and interests by licensee	M27	Yes	The targets have been met. No further recommendations
Ratio of capital expenditures to depreciation by licensee	M28	Yes	The targets have been met. No further recommendations
Percent species composition of harvest volume by licensee	M35	Yes	The focus for this indicator is meeting the pine targets to address the MPB. The targets have been met. Re-establish targets post epidemic.
Benefits directed into local communities by licensee	M43	Yes	The targets have been met. No further recommendations
Road density by ecosystem and wildlife value class by licensee	M46	Yes	The targets have been met. No further recommendations

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Public Advisory Group established and maintained according to approved Terms of Reference	M50	Yes	The targets have been met. No further recommendations
Percentage of comments receiving response by type by licensee	M54	Yes	The targets have been met. No further recommendations
Percent of Fires Burning During Poor or Fair Air Quality Conditions by Licensee	M56	Yes	The targets have been met. No further recommendations
Ecosystem Carbon Storage by tonnes/ha. by Licensee	M57	Yes	The targets have been met. No further recommendations
Percent of harvest area in Mountain Pine Bark Beetle attacked stands by licensee	M58	Yes	The targets have been met. No further recommendations

Table 2. Morice TSA Indicators (targets partially met)

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Percent of area less than VEG by recreation class by licensee	M11	<b>Partial</b>	<p>This indicator was partially met by Canfor, BCTS and West Fraser. Not meeting target could result in the full range recreational opportunities being compromised in the DFA.</p> <p>Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement. BCTS will complete a review of spatial recreation coverage's for the Morice TSA including further revisions to trails and recreation features.</p>
Percent area in suitable forage opportunity class by LU by licensee	M13	<b>Partial</b>	<p>Canfor and BCTS each met their targets in all but one Landscape Unit. West Fraser met its targets. Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement. BCTS: will review the Houston-Tommy Landscape Unit and compare to BCTS operating area boundary to determine status.</p>
Percent forest in each patch type by patch size class by BEC Variant by licensee	M17	<b>Partial</b>	<p>Canfor met its targets. HFP met its targets in all but one BEC variant (ESSFmc). BCTS missed targets in ESSF early patches &lt;= 40ha and SBSmc2/wk3 early patches &gt;250 ha. Not meeting target is a result of natural disturbance related to fire, which occurred prior to plan endorsement and is not attributable to actions taken by applicable licensees</p> <p>Since harvesting is concentrated in pine-leading SBS types, the time required to meet applicable patch size targets should be reviewed and reforecast. The ESSF will take a while longer due to the current beetle situation and the lack of current harvesting in the ESSF.</p> <p>Seral targets in the ESSF are in part not being met due to natural disturbance related to fire which occurred prior to plan endorsement and is not attributable to actions taken by licensee.</p> <p>Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement. The Technical Committee will complete a literature review with the intent of investigating the possibility of applying opening buffers based on size.</p>

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Percent seral stage distribution by non-timber tenure license by forest licensee	M19	<b>Partial</b>	<p>For HFP, one Trapline territory and one Range Tenure fell below the targets. For Canfor, four Range Tenure areas fell below the target. For BCTS nine Range Tenure areas fell below the target.</p> <p>Range territories below the forecast target is due to changing harvest priorities to maximize recovery of beetle attacked timber and reduce the associated non-recoverable losses. As such, harvesting activities will not necessarily be directed towards creating early seral in range territories.</p> <p>Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement.</p>
Percent seral stage distribution by ecosystem and wildlife value class by licensee	M31	<b>Partial</b>	<p>All targets have been met with the exception of BCTS in "Mountain Goat Key Habitats".</p> <p>Early seral within key mountain goat habitats in BCTS operating area increased as a result of operating area changes. Targets will be reforecast to reflect changes.</p> <p>Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement.</p>
Percent Seral Stage Distribution by LRMP Biodiversity Emphasis Area / BEC Combination by licensee	M32	<b>Partial</b>	<p>All targets have been met with the exception of Canfor in 1 of 24 categories and BCTS in 1 of 19 categories. Canfor to ensure the two-year Harvest Plan does not contain blocks within the High Biodiversity Emphasis Area (Morice River corridor) where the stand age is greater than or equal to 140 years in the SBSdk. In addition, for the ESSFmk old within the General Forested Area, target not met due to removal of old forest encompassed within new park boundaries. As such will need to reforecast targets as per the actions below. BCTS to ensure no new harvest within SBSdk old until such time as target met.</p> <p>Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement.</p>

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Road density by recreation class by licensee	M47	<b>Partial</b>	<p>Canfor and HFP met their targets. BCTS met its targets except in "LRMP Motorized".</p> <p>Actions related to improving the performance of this indicator are ongoing. The Technical Committee will complete a review of recreation coverages for the Morice TSA including further revision to trails and recreation features. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. Proposed targets will be presented to the PAG for endorsement.</p>
Area Weighted Average Minimum Harvest Age Mean Annual Increment (m3/ha/year) by BEC by licensee	M49	<b>Partial</b>	<p>Current harvest priority is being directed towards the pine dominated profile and as a result we are not logging in stands typical of the ESSF. As a result in the ESSF stands are not being put onto managed yield curves and as a result increases to the Mean Annual Increment (MAI) are not being realized for applicable areas.</p> <p>Actions related to improving the performance of this indicator are ongoing. Revised indicator forecasts are being developed. Working in conjunction with the Technical Committee, utilize analysis results and interpretations to propose new targets. When setting targets for Biogeoclimatic zones with a lower pine percent (i.e. ESSF) ensure that they reflect anticipated timelines for harvest priority shifting to the non-pine component of the profile. Proposed targets will be presented to the PAG for endorsement.</p> <p>This indicator has a 5 year reporting interval; therefore, the next reporting period is 2009.</p>

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Road density index (RDI) by sensitive watershed by licensee	M52	Partial	<p>Canfor met the target in 40 of 46 watersheds. BCTS met the target in 19 of 20 watersheds. HFP met the target in 30 of 31 watersheds.</p> <p>This indicator is effective as a pressure indicator to determine the amount of roads within a watershed and is made more effective in combination with M7 (Percentage of identified high hazard structures with action plans implemented by Licensee).</p> <p>Actions related to improving the performance of this indicator are ongoing. The Data Management Working Group will review the status of road systems in watersheds in excess of target. Some are old block roads that may be in a deactivated state. Future harvest will look to minimize road building. A project is in progress to complete and deliver remaining Stream Crossing Quality Index (SCQI) survey results for sensitive watersheds in the Morice TSA. The results of SCQI surveys for respective licensees will be incorporated into M7 Operational Indicator reporting for the 2009-2010 reporting period.</p>
Percent of Harvesting by Licensee where Recommended Operational Guidelines have been applied to Retain Structural Habitat Elements	M53	Partial	<p>Canfor and BCTS met the target. HFP did not meet the target. For the 2008/2009 reporting period, HFP will address the deficiencies with this indicator. The recommended operational guidelines should be reassessed in light of the MPB epidemic.</p>

Table 3. Morice TSA Indicators (no data)

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Total area by wildlife value class by licensee	M37	No Data	<p>This indicator was not reported due to logistical constraints.</p> <p>Actions related to improving the performance of this indicator are ongoing. Update the habitat supply modelling for selected wildlife species in the Morice TSA. Once a habitat supply modelling FIA project is complete develop models and reporting mechanisms required to forecast and generate current status results for 2009-2010 reporting period. This indicator has a 5 year reporting interval; therefore, the next reporting period is 2015.</p>

Table 4. Morice TSA Indicators (targets not met)

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Percentage of identified high hazard structures with action plans implemented by Licensee	M07	No	The IFPA Technical Committee has recommended this indicator be reworded to address the risk of the crossing rather than the structure, which improves this indicator. Additional Sensitive Watersheds and High Hazard Structures will be assessed in 2009 as part of an on-going Landbase Investment Rationale project.

Table 5. Morice TSA Indicators (5-year reporting)

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Percent area of the THLB and non-contributing forest by beetle hazard type (extreme and high) by licensee	M14	5-yr	This indicator has a 5 year reporting interval; therefore, the next reporting period is 2009.
Percent Species Composition by BEC by licensee	M33	5-yr	This indicator has a 5 year reporting interval; therefore, the next reporting period is 2009.
Area of arable land (Ha/5yr.) within contributing and non-contributing forest converted to agricultural lease by agricultural unit in licensee operating area	M42	5-yr	This indicator has a 5 year reporting interval; therefore, the next reporting period is 2009.
Equivalent clear cut area (ECA) by Sensitive watershed by licensee	M45	5-yr	This indicator has a 5 year reporting interval; therefore, the next reporting period is 2009.



Table 6. Morice TSA Indicators (monitor only)

Indicator	Indicator Number <i>M = Morice TSA</i> <i>L = Lakes TSA</i>	Targets Met?	Comments / Recommendations
Percent area in Aspen Leading Stands within Existing and Potential Range by LU by licensee	M36	Monitor only	This is a monitor only indicator. PAG endorsed recommendation for changing indicator to a 5 year reporting interval.
Area treated by treatment type by licensee	M41	Monitor only	This is a monitor only indicator.

This report provides summary information on our sustainable forest management plans and monitoring systems. Detailed indicator performance monitoring reports and recommendations for both the Morice and Lakes SFM plans can be viewed by contacting the IFPA General Manager.

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