

SUSTAINABLE FOREST MANAGEMENT INDICATOR REPORT 2005



John Sheppard Photo

**Weasel Pond, Goose Arm
Thinned 1979**



**CORNER BROOK PULP
AND PAPER WOODLANDS**

June 2006



Indicator Report 2005

An Update of the Sustainable Forest Management Plan

June 2006

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Canadian Council of Forest Ministers (CCFM) Criteria

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Available on our website www.cbpl.com :

- Sustainable Forest Management Plan
- 2005 Environmental Progress Report
- 2005 Audit Report

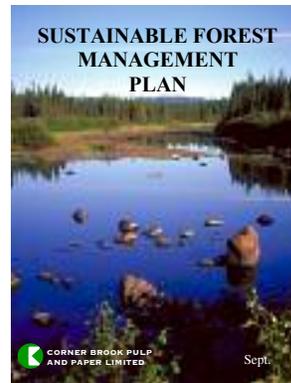
Second Annual Update...

Corner Brook Pulp and Paper Woodlands would like to present its second annual *Indicator Report*, a public report to communicate the progress made in our *Sustainable Forest Management Plan*.

In 2004, after a year and a half of preparation, Corner Brook Pulp and Paper Limited (CBPPL) was granted certification to the **CAN/CSA-Z809-02 Standard**, for all of its timber limits (**Defined Forest Area**). This voluntary standard, established in 1996, is Canada's national standard for sustainable forest management (SFM). Certification to this standard was approved for CBPPL, after a rigorous, independent, third-party audit. Continued certification will require the same.

CAN/CSA-Z809-02 provides CBPPL with a system for con-

tinually improving our forest management performance. Even more important, the standard requires that we involve the public (our **Public Advisory Committee**) in a process that identifies forest values, and sets targets to ensure these values are addressed. The end product of this process is CBPPL's *Sustainable Forest Management (SFM) Plan*, completed in 2004.



As required by the CAN/CSA-Z809 Standard, the SFM Plan is based on the **Canadian Council of Forest Ministers** criteria for sustainable forest management, listed in the Table of Contents on the left. For each of the six criteria, the Public Advisory Committee have identified forest values, selected indicators of these values, and set targets for the indicators. The *SFM Plan* will be updated every five years. The *Indicator Report* is an annual update, reporting progress made in the indicators between SFM Plans.

If after reviewing this report you would like more information, please contact the Environmental Management Representative at 637-3490 or visit our website at www.cbpl.com.

With Flying Colors

Competition is tough in the forest industry these days. Publishers buying paper look at price but are equally concerned about the environmental report card of their suppliers. They request proof of certification to environmental and sustainable forest management standards, and they evaluate the management plans produced as a requirement of certification.



Corner Brook Pulp and Paper Limited is certified to both the environmental standard **ISO 14001:2004** and the sustainable forest management standard **CAN/CSA-Z809-02**. Through a

continued commitment to environmental and sustainable forest management, we are determined not only to maintain this certification, but achieve it with flying colors.

Major Milestones for CBPPL Woodlands

- 2001: CBPPL Woodlands **Environmental Management System** is registered to **ISO 14001:1996**
- 2002: CBPPL Woodlands receives **Environmental Performance Award** from the **Newfoundland Environmental Industry Association**
- 2003: CBPPL Woodlands forms **Public Advisory Committee**
- 2004: CBPPL Woodlands is registered to **CAN/CSA Z-809:2002 SFM Standard**
- 2005: CBPPL Woodlands was recommended for continued registration to **CAN/CSA Z-809:2002 SFM Standard** and **ISO 14001:2004**.

CCFM Criterion 1

Conservation of Biological Diversity

Indicator 1.1.1 Ecosystem Diversity – Working Groups

Element	1.1 Conserve ecosystem diversity at the landscape-level by maintaining the variety of communities and ecosystems that naturally occur on the DFA.
Value	Natural Ecosystem Diversity
Objective	To maintain a natural diversity of forest types and age classes.
Indicator	Area and percent of the DFA in each working group and age class.
Target	To maintain representation (by area) of current working group classes close to current levels.
2005 Update	The wood supply analysis was conducted in 2005 and should be completed by April of 2006. After the wood supply analysis is completed, and the final Annual Allowable Cut numbers are released, each age class in each working group modeled will be re-calculated using this new information.



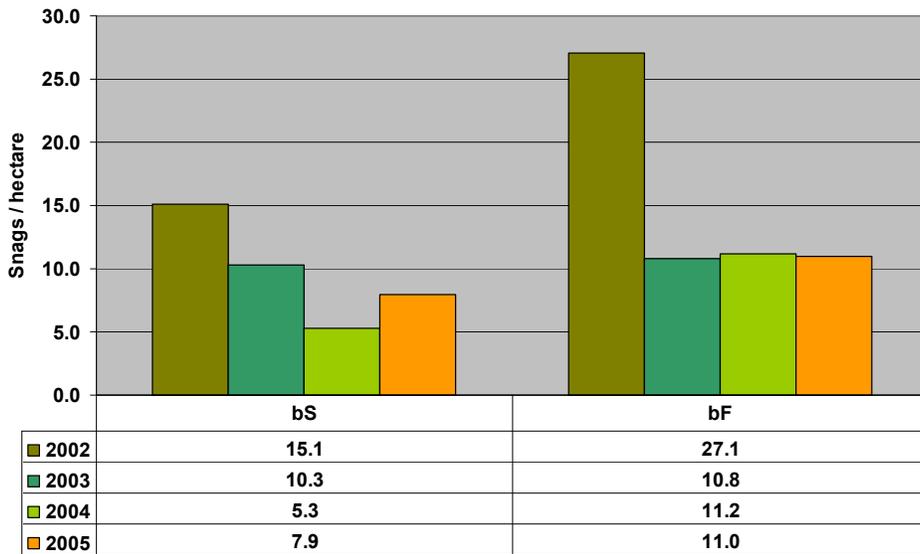
Indicator 1.2.1 Species Diversity – Snags

Element	1.2 Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time.
Value	Native and non-native species diversity.
Objective	To maintain native and non-native species habitat.
Indicator	1.2.1 a Quantity of wildlife snags per hectare left after harvest.
Target	To leave a minimum average of 10 snags/ha
2005 Update	<p>The Environmental Protection Guidelines set forth by the Department of Natural Resources, state that a minimum average of ten <u>wildlife trees</u> per hectare must be retained on our harvest and silviculture blocks. Wildlife trees are both living and non-living standing tree structures, whereas snags are dead or dying trees. In the Snag Management Program, the quantity calculated to date represents snags only, and should not be confused as an average of wildlife trees per hectare.</p> <p>The following results are presented in the <i>2005 Snag Management Program Report</i>:</p> <p>Snag assessment calculations for the 2005 season indicate an average of 9.6 snags/ha are currently being retained on CBPPL Woodlands' cutovers. It has been calculated however, that an average of 11 snags/ha has been left on CBPPL cutovers since the initiation of the Snag Management Program in 2002.</p>

A detailed report has been compiled containing the complete 2005 Snag Management Program. Contact CBPPL Woodlands for further information.



2002 - 2005 Snags per Hectare by Species

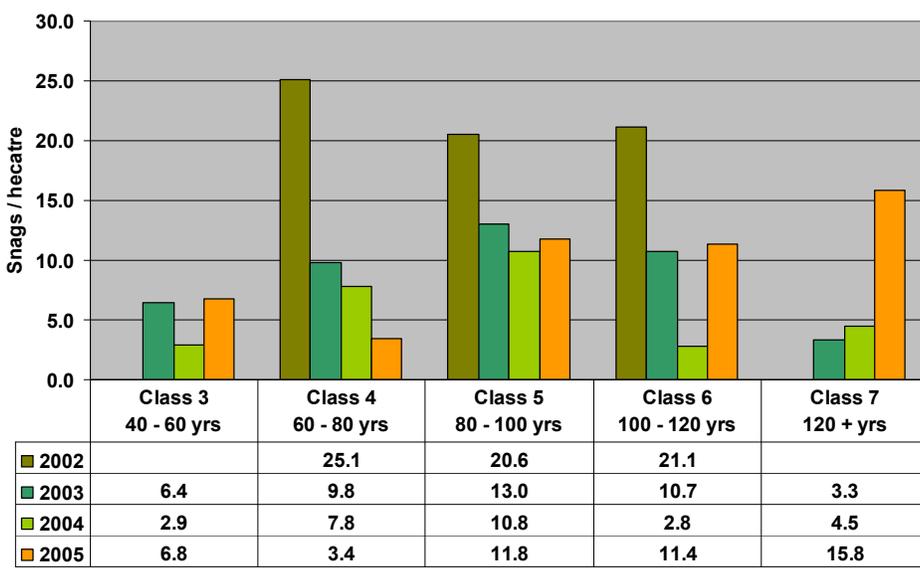


Despite the tendency for many snags to be cut for domestic firewood consumption, CBPPL Woodlands is still achieving our snag retention target.



Cavity nest in a hardwood snag.

2002 - 2005 Snags per Hectare by Age Class

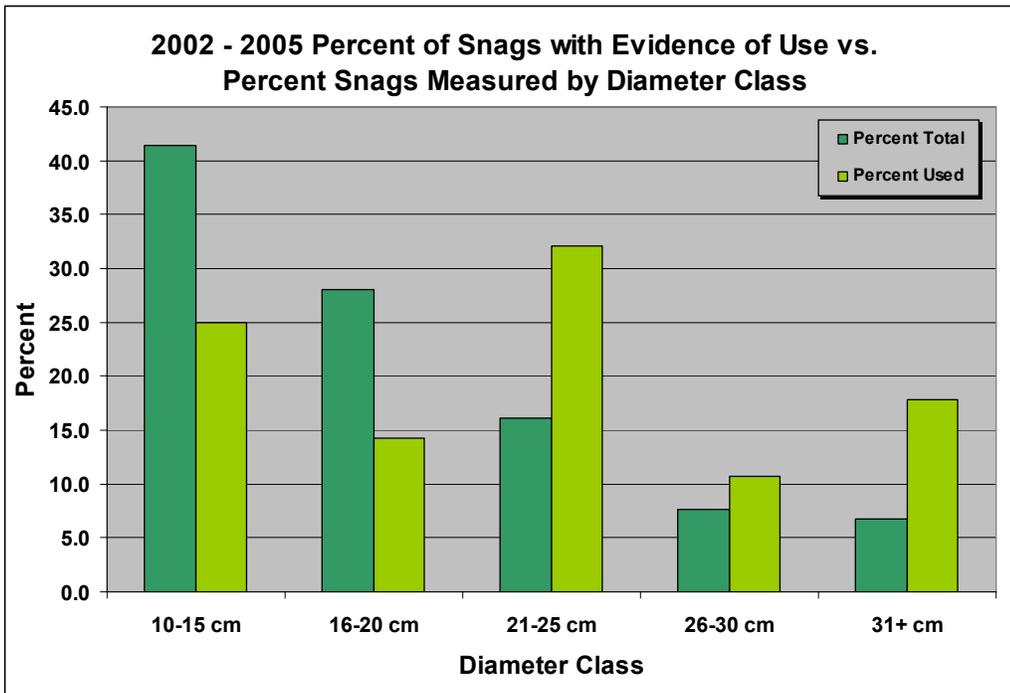


The greatest quantity of snags occurs between the ages of 60 to 100 years. At 100 + years, the internal structure of the snags continues to decay and blow down becomes more frequent.

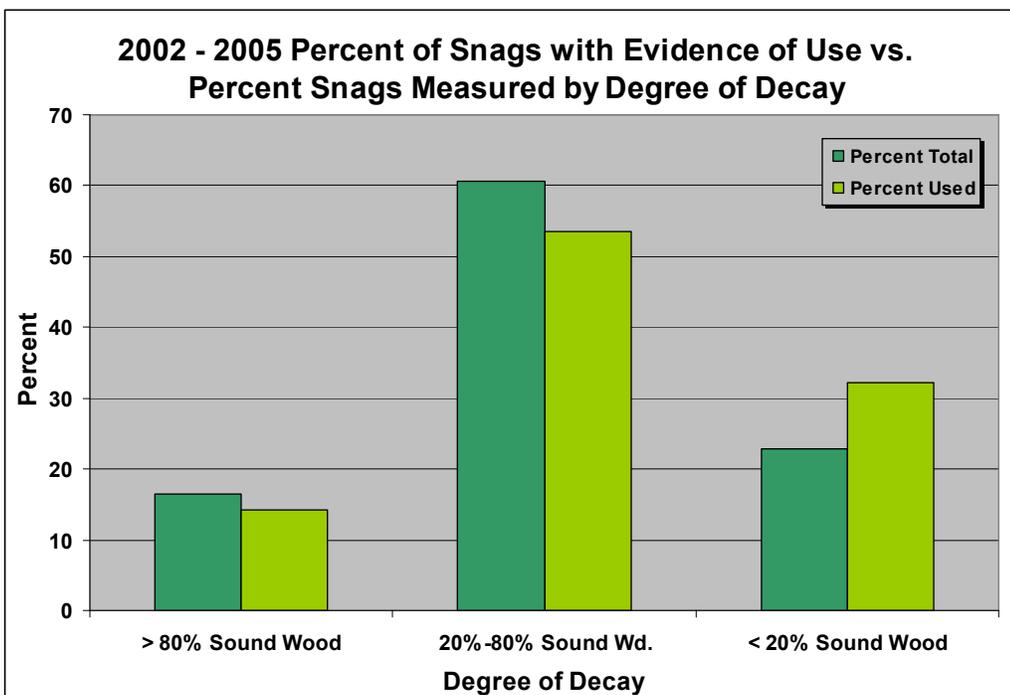


CBPPL is supporting a study of snags conducted by a Masters student at Sir Wilfred Grenfell College, to help determine what snag characteristics are favored by wildlife.

Indicator	1.2.1 b Quality of wildlife snags per hectare left after harvest.
Target	To continue to develop system to evaluate quality of wildlife snags
2005 Update	<p>The following results are presented in the <i>2005 Snag Management Program Report</i>:</p> <p>Although many snags may exist within a given area, not all snags are equally attractive to wildlife. Some contain characteristics that make them more valuable than others. With the objective of identifying higher value snags, the snag assessment data was analyzed further to see if a correlation existed between the snags with evidence of use and their physical characteristics. This survey was only able to record active use through physical evidence such as nesting cavities.</p> <p>During the period 2002 - 2005, 4.4% of the total snags assessed had evidence of wildlife use, which consisted mainly of cavity nests and woodpecker boring. These were the snags used to compare characteristics. A correlation may possibly exist between snag use and the following snag characteristics. The graphs on the subsequent pages illustrate the possible correlations:</p> <ul style="list-style-type: none"> • There is a preference for larger diameter trees, which tends to increase as diameter increases (Diameter Class). • Although not a strong relationship, cavity nesters appear to prefer snags with less than 20% sound wood (Degree of Decay). • As the bark composition of a snag decreases, its use for nesting cavities increases (Bark Composition). <p>As in the <i>2004 Snag Management Program Report</i>, it is the recommendation of the 2005 report that the Snag Management Program be introduced as an active (operational) part of our Environmental Management System. Time and budgetary restrictions did not permit this to happen in 2005, but we are hopeful for 2007. Aspects of this introduction would include:</p> <ul style="list-style-type: none"> • Identify areas where snag quantity tends to be limiting. • Focus our education and awareness efforts in problematic areas. • Develop an information brochure on snag management. • Incorporate the Snag Management Program education into winter utilization education. • Report results at District Safety and Environmental Meetings. <p>In 2006, CBPPL will continue to gather routine data on snags for the Snag Management Program. As well, through the Western Newfoundland Model Forest Partnership, CBPPL is supporting a study of snags conducted by a Masters student at Sir Wilfred Grenfell College. This project will look at how long snags are useful to cavity-dependent animals, the extent of snag use by wildlife, and the difference in the use of snags in cutovers and snags in forests.</p>



The preference of larger diameter snags (21+cm) tends to increase as diameter increases.



Cavity nesters appear to prefer snags with less than 20% sound wood, likely due to ease of excavating the softer decayed wood.

Snags are measured and assessed using the following criteria:

- size, species,
- degree of decay, percent bark
- composition,
- top presence,
- branchiness,
- evidence of use and
- proximity to edge.

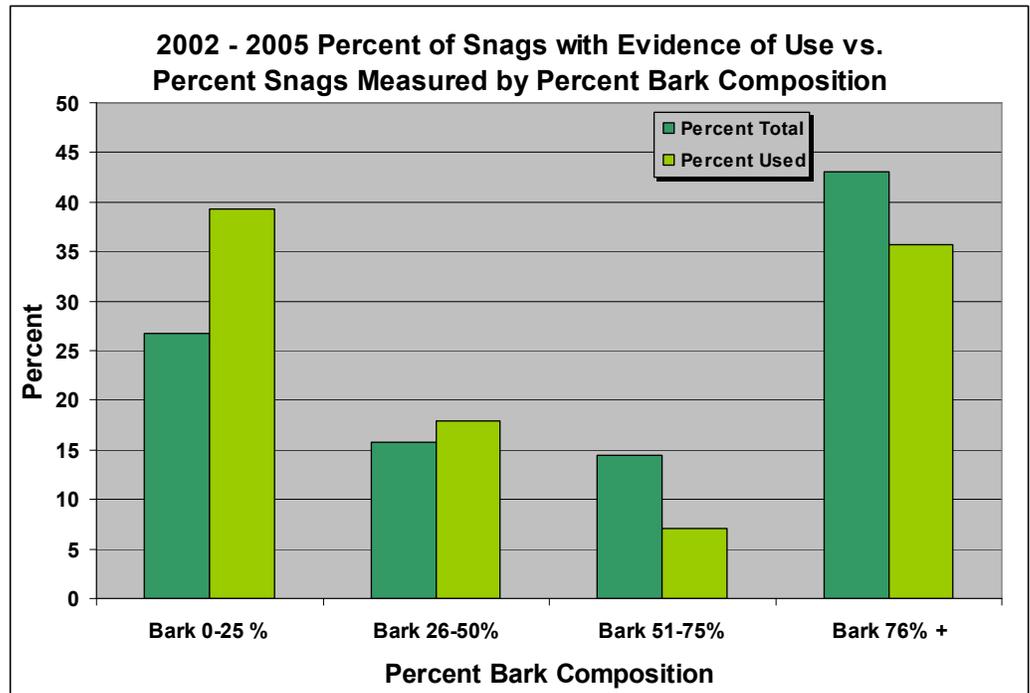


Small mammal den

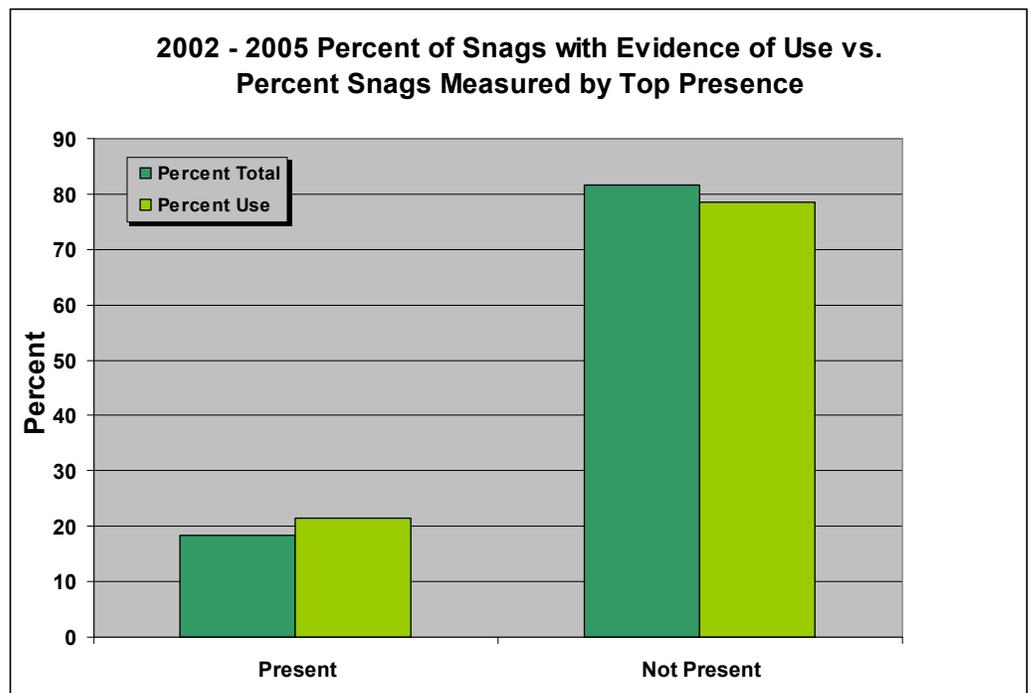


Percent Bark Composition :

An estimation of bark remaining on the snag was recorded, and represented as a percent.



As the bark composition of a snag decreases, its percent usage for cavity nesting tends to increase.



There appears to be no correlation between the presence of a top and use for cavity nesting.



Indicator 1.2.2 Species Diversity- Pine Marten Habitat

Element	1.2 Conserve species diversity by ensuring that habitats for the native species found in the DFA are maintained through time.
Value	Native and non-native species diversity.
Objective	To maintain native and non-native species habitat.
Indicator	Amount of pine marten habitat on the DFA.
Target	To maintain current levels of pine marten habitat.
2005 Update	The pine marten Habitat Assessment Model had a complete re-write in 2005, as recommended by the Pine Marten Recovery Team. This re-write will make the model process faster, and more importantly, incorporate the latest re-search information available from the Canadian Forest Service study. A University of Maine PhD student also used this new research information to develop a Marten Occupancy Model, which predicts the probability that an area can support a marten. Both models are going through some preliminary testing and are showing that pine marten make use of more forest types than was originally thought. Plans are currently under way to apply these models to the entire Island. This will provide the best indication of areas of highest potential for pine marten habitat in Newfoundland.



Indicator 1.3.1 Diverse Gene Pool- Non-Native Species

Element	1.3 Conserve genetic diversity by maintaining the variation of genes within species.
Value	Indigenous tree species.
Objective	To maintain a predominance of indigenous species.
Indicator	Area of the DFA regenerated with non-native species.
Target	To have no more than 0.1% of the DFA regenerated with non-native species.
2005 Update	<p>During 2005, Corner Brook Pulp and Paper Woodlands planted 196,000 Norway Spruce seedlings, on the equivalent of 78 hectares (part of the program was planting “gaps” where no seedlings existed).</p> <p>This brings our total planting of non-native species to 753 hectares or 0.038% of our Defined Forest Area (entire limits). Our objective is not to exceed 0.1% of timber limits in planting of non-native species.</p> <p>Note: In response to the effect of recent land use issues on the area of forested land available for forest management, the Province’s regeneration strategy has changed to include more fast-growing species such as Norway Spruce. This may affect CBPPL’s planting program in the future.</p>



Black spruce seedling



Indicator 1.4.1 Biological Diversity—Special Places

Element	1.4 Respect protected areas identified through government processes. Identify sites of special biological significance within the DFA and implement management strategies appropriate to their long-term maintenance.
Value	Special sites.
Objective	To identify and maintain special sites.
Indicator	Number of special sites identified, described, and promoted.
Target	To implement a "Special Places" program that will develop a long-term management strategy to describe, promote and maintain special sites on the DFA, and to encourage the identification of additional sites. To promote a minimum of 8 sites in 2004.
2004 Update	<p>The Sustainable Forest Management Plan identified thirty-seven "Special Places" on the DFA that are of biological significance. CBPPL has committed to ensuring controls are in place to manage, and preserve or maintain the attributes that make these areas special. Progress made in 2005 brings the total number of Special Places described to nine. The areas are as follows:</p> <ul style="list-style-type: none">  Birchy Basin  Lewis Hills  Steady Brook Falls  West Brook Ecological Reserve  Cooks Marsh  Little Grand Lake  Sandy Lake Red Pine Stand  T'Railway  Rare Plant Areas on the Northern Peninsula <p>Each of these sites has an associated description developed including background information, site selection and evaluation and defined boundaries. Currently this information is stored in the Corner Brook Pulp and Paper Limited EMS database.</p> <p>The intent is to create a map illustrating the locations of the Special Places and make it available to the public via the company website. This indicator for biological diversity is re-scheduled for launch on the website in September of 2006.</p>



Steady Brook Falls

The Special Places program will be launched on CBPPL Woodlands' website in September 2006.

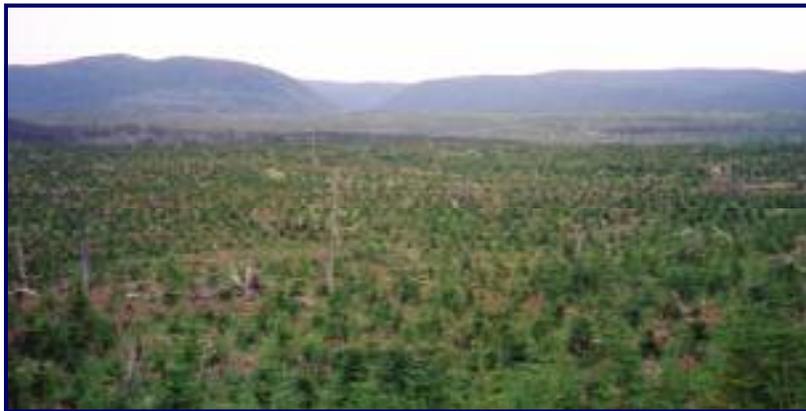
CBPPL Woodlands' Public Advisory Committee enjoyed their lunch at Cooks Marsh, a Special Place, during a woods tour.





Indicator 2.1.1 Resilient Ecosystems -Sufficiently Stocked

Element	2.1 Conserve ecosystem resilience by maintaining both ecosystem processes and ecosystem conditions.
Value	Natural resilient ecosystems.
Objective	To maintain natural resilient ecosystems.
Indicator	Proportion of areas sufficiently stocked after harvest.
Target	To have 100% of areas sufficiently stocked after harvest.
2005 Update	Routine regeneration surveys were conducted in 2005. Data has been compiled and the results indicate that for 1996–2000 cutovers, 86% of harvested areas have adequate regeneration, with an additional 12% of cutovers yet to be surveyed. While the target has been set at 100% stocked, our data suggests 90-95% may be more realistic. This will be determined with greater certainty as more surveys are completed.



Indicator 2.2.1 Productive Ecosystems– Mean Annual Increments

Element	2.2 Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species.
Value	Productive forest ecosystems.
Objective	To maintain productive forest ecosystems.
Indicator	Mean annual increment (MAI)
Target	To maintain current levels of growth.
2005 Update	The current MAI, 1.1103 m ³ /ha/yr, is based on the 2001 Wood Supply Analysis. Changes in MAI happen only over a long period of time, typically every 10-12 years. Therefore, the next calculation of the MAI will be done at least 10 years after the 2001 Wood Supply Analysis, in 2011.

CCFM Criterion 2

Maintenance and Enhancement of Forest Ecosystem Condition and Productivity

We will continue our forest management policy of prioritizing our oldest stands for harvest first.



The boreal owl is one of the wildlife species used to indicate the effects harvesting strategies have on biodiversity.

CCFM Criterion 3 Conservation of Soil and Water Resources

Further information on the 2005 Soil Disturbance Program Annual Report can be obtained by contacting CBPPL Woodlands.

Indicator 2.2.2 Productive Ecosystems– Biodiversity Assessment Project

Element	2.2 Conserve forest ecosystem productivity and productive capacity by maintaining ecosystem conditions that are capable of supporting naturally occurring species.
Value	Productive forest ecosystems.
Objective	To maintain productive forest ecosystems.
Indicator	Results of the Biodiversity Assessment Project (BAP)
Target	To continue to develop a model with the BAP Working Group.
2005 Update	The Biodiversity Assessment Project model is still in development and currently only applicable to forest management District 15. However, four management scenarios have been created (Business As Usual (BAU), BAU Fragmented, BAU Aggregated, and Pine Marten Friendly), as well as three habitat models, for pine marten, boreal owl and caribou. Much of the work is being done by contract with IQAFF of Quebec. A workshop in March 2006 reviewed the preliminary results analyzed by IQAFF. Also in 2006, the LANDIS model will be used to determine the natural range of variability for the test area. This will allow comparisons to be made between the four management scenarios and a natural (no human activity) scenario.

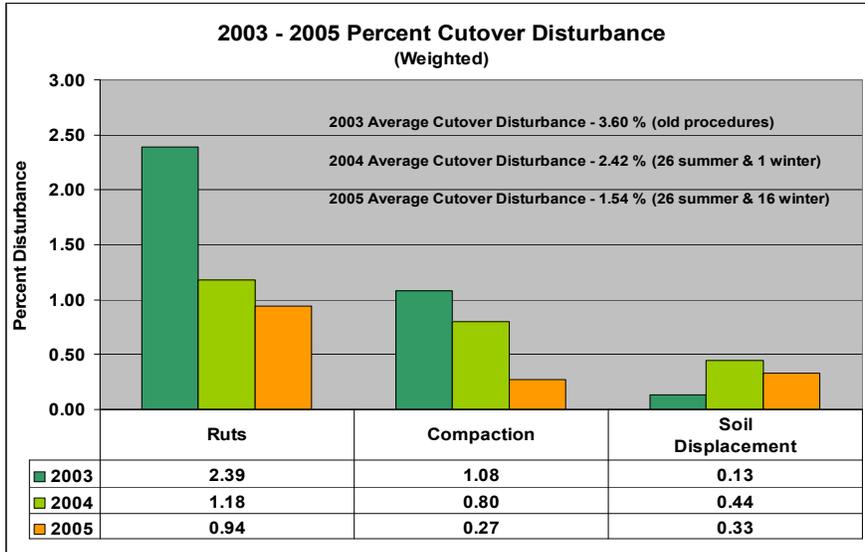
Indicator 3.1.1 Ground Disturbance - Soil Integrity

Element	3.1 Conserve soil resources by maintaining soil quality and quantity
Value	Soil Integrity
Objective	To maintain soil integrity.
Indicator	Area of ground disturbed on an operating area basis, on cutovers and roads.
Target	To have on average less than 5% of an operating area with soil disturbance on the cutover areas and 5% for roads.
2005 Update	<p>During August 2004, a new, more meaningful approach to soil disturbance assessments was instituted, enabling us to better determine the real negative impacts of soil disturbance. In 2005, all surveys were conducted using the new methods. The following results are presented in the <i>2005 Soil Disturbance Program Annual Report</i>.</p> <p>During the 2005 season, forty-two operating areas were assessed, compared to twenty-seven in 2004, four in 2003 and seven in 2002. In 2004, most winter and spring areas were not surveyed, therefore the weighted average of 2.42% cutover disturbance represented the level of soil disturbance for summer and fall operations only in that year. The 2005 assessments were performed in all operating areas where a minimum of 5000 m³ had been harvested, as well as in some smaller operating areas. The results indicate a weighted average of 1.54% cutover disturbance, calculated from both winter and summer operations, and all harvesting systems.</p> <p>Although the area of ground disturbed by roads cannot be determined by this new assessment process, the area of productive land on the DFA converted to roads has been calculated as 0.5%, based on 2003 statistics from the Department of Natural Resources roads database (See Indicator 4.2.1).</p>



Cutover Disturbance

During assessments, soil disturbance was divided into three categories- ruts, compaction and soil displacement - allowing problem areas to be identified. It was determined that ruts are the major source, and perhaps the most damaging type, of soil disturbance.



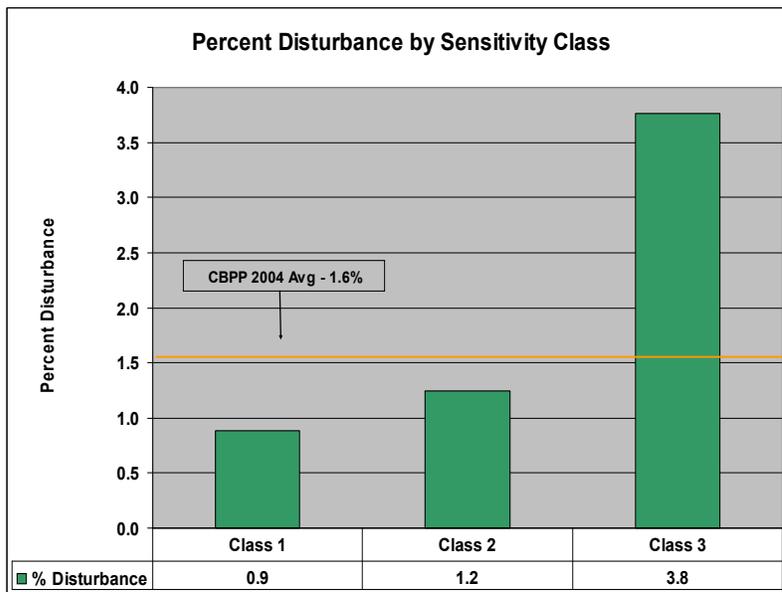
On average, 41% of the disturbances assessed had adequate regeneration adjacent to the disturbed areas, resulting in little or no area taken from production.



Soil Disturbance Indicators

A number of soil disturbance indicators are assessed to provide a qualitative assessment of soil disturbance, in addition to the quantitative measure of cutover disturbance. These assessments are especially beneficial for operating areas that exhibit above average amounts of disturbance, as the indicators identify the underlining source of the problem. One of the indicators measured was site sensitivity, rated on a scale of 1 (least sensitive) to 3 (most sensitive). Not surprisingly, results determined that the more sensitive the site, the more susceptible that site is to soil disturbance.

An assessment of the "plantability" of the disturbed areas (presence of adequate top soil, degree of compaction, etc.) concluded that on average, planted trees should grow unimpeded on 46.7% of the disturbed areas.





Ensuring roads are built within specifications minimizes the amount of disturbance associated with road construction.



The pilot project intensive pre-harvest planning will include, for example, location of main forwarder trails and side trails, cutting block layout, and buffers around sensitive areas.

Road Disturbance (Berm to Berm)

Berm to berm disturbance associated with road construction represented 59.7% of all measured soil disturbance during **2003** (5.75% of total 9.62% weighted). The new soil disturbance procedures adopted during August 2004 do not involve calculating the percent disturbance associated with roads. Since access roads are a necessity to extract fibre, it has been considered much more efficient to ensure roads are built within specifications, therefore minimizing the amount of disturbance associated with road construction.

It has been observed through evaluation of field data that the surface widths of both capital and operational roads are being built very close to CBPPL specifications. Capital road surface widths averaged 0.60m wider than the specification of 5.5m, while operational road surface widths averaged 0.40m wider than the specification of 5.0m.

Recommendations

The report proposed two major recommendations to effectively minimize soil disturbance in 2006. The first recommendation focuses on the reduction of disturbance from rutting:

- identify areas of high sensitivity and plan to harvest these areas when potential for disturbance is low (winter or dry summer);
- communicate soil disturbance concerns to employees and train them in methods to reduce it (brush mats, proper trail location, etc.).

The second major recommendation addresses soil disturbance associated with roads:

- conducting a trial to investigate possible ways of reducing berm to berm width on both capital and operational roads;
- considering the reduction of landing sizes for service and pulpwood trailers.

Indicator 3.1.2 Soil Integrity - Pilot Project

Element	3. Conservation of Soil and Water Resources
Value	3.1 Conserve soil resources by maintaining soil quality and quantity
Objective	Soil Integrity
Indicator	Amount of area lost due to permanent roads and landings on an operating area basis.
Target	To carry out a pilot project to do intensive pre-harvest planning with the objective to minimize soil disturbance and the amount of road constructed.
2005 Update	Soil disturbance surveys conducted in 2002 and 2003 indicated that of the areas assessed, 6% of the total cutover area had been disturbed by roads and landings. A pilot project proposal to conduct intensive pre-harvesting planning, in order to minimize soil disturbance and the amount of road constructed, was put on hold, but will now start in September 2006.



Indicator 3.2.1 Water Quality - Water Sampling for Stream Crossings

Element	3.2 Conserve water resources by maintaining water quality and quantity
Value	Water Integrity
Objective	To maintain water quality
Indicator	Results of water sampling performed during bridge construction and culvert installation.
Target	To have no change in water quality resulting from stream crossing installation.
2005 Update	Due to budgetary constraints in 2005, sampling was performed during bridge construction only. Of the six bridges sampled in 2005, there were no significant changes in the water quality of the watercourses, as a result of Corner Brook Pulp & Paper Woodlands' construction activities.



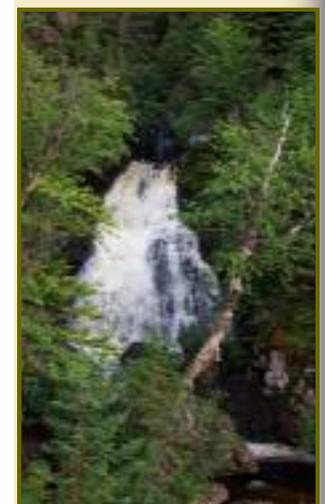
Indicator 3.2.2 Water Quality - Water Sampling for Corner Brook Stream

Element	3.2 Conserve water resources by maintaining water quality and quantity
Value	Water Integrity
Objective	To maintain water quality
Indicator	Results of water quality sampling program on Corner Brook Stream.
Target	To continue water sampling program in CB Stream, to ensure no change in water quality as a result of harvesting operations conducted for Corner Brook Pulp and Paper Limited.
2005 Update	Again in 2005, three locations within the Corner Brook Stream watershed were sampled every two months and during high water events. The samples were analyzed for nine water quality parameters and showed no change in water quality due to harvesting operations.



Indicator 3.2.3 Water Quality - Model Development

Element	3.2 Conserve water resources by maintaining water quality and quantity
Value	Water Integrity
Objective	To maintain water quantity
Indicator	Results of project titled " <i>The Assessment of the Effectiveness of Sustainable Forest Management Practices on Water Resources.</i> "
Target	To continue to monitor the development of a model to measure water quantity.
2005 Update	It was hoped that the project would provide a means to model the effects of forest management on water yield, but this was not addressed. The project developed a Forest Water Quality Index dealing with water quality but not quantity. Staff are currently investigating water yield studies conducted by Deer Lake Power.





CCFM Criterion 4
Forest
Ecosystem
Contributions to
Global
Ecological Cycles

To ensure that the DFA acts as a carbon sink, CBPPL will practice forest management activities that maintain site productivity.



Indicator 4.1.1 Total Ecosystem Carbon—Total Fibre Volume

Element	4.1 Carbon Uptake and Storage
Value	Total Ecosystem Carbon
Objective	To ensure that the forest continues to contribute to the global carbon budget through the absorption of carbon.
Indicator	Total stock (volume) of fibre available on the DFA in all species.
Target	To maintain the current volume of fibre on the DFA.
2005 Update	The current total stock volume on CBPPL's DFA for three working groups, [Balsam Fir (bF), Black Spruce (bS) and Softwood Hardwoods (sH)] is 60,019,170 m ³ . This was determined by the wood supply model, using the latest available inventory for each management district. The total stock volume will be updated in 2006, using the wood supply model employed to calculate the 2006-2010 AAC.

Indicator 4.1.2 Total Ecosystem Carbon— Carbon Budget Model

Element	4.1 Carbon Uptake and Storage
Value	Total Ecosystem Carbon
Objective	To measure total ecosystem carbon
Indicator	Progress towards the completion of a carbon budget model.
Target	To continue to monitor the model under development by Natural Resources Canada
2005 Update	The Carbon Budget Model continues to be developed by a national Carbon Accounting Team, funded by the Canadian Forest Service and the Canadian Model Forest Network. The Canadian Forest Service is in the process of expanding and enhancing the model to allow a user to perform detailed process and risk analyses. CBPPL has monitored the progress of the CBM and completed some training in 2004.

Indicator 4.2.1 Forested Land - Pilot Project

Element	4.2 Forest Land Conversion
Value	Forested Land
Objective	To minimize the amount of forested land taken out of production.
Indicator	Area of DFA converted to non-forested land (permanent access roads and landings).
Target	To carry out a pilot project to do intensive pre-harvest planning with the objective to minimize the amount of land converted to permanent access roads and landings.
2005 Update	Based on data from 2003, the current area of productive land on CBPPL limits converted to roads is 0.5% of the DFA or 1.06% of the total productive DFA. The pilot project proposal to conduct intensive pre-harvesting planning was put on hold, but will now start in September 2006.



**CCFM Criterion 5
Multiple Benefits
to Society**

Indicator 5.1.1 Timber benefits - AAC Harvested

Element	5.1 Timber and Non-Timber Benefits																																																								
Value	Timber Benefits																																																								
Objective	To maintain timber benefits																																																								
Indicator	Percent of available AAC harvested.																																																								
Target	To harvest no more than 100% of the AAC over a five-year period.																																																								
2005 Update	<p>The Annual Allowable Cut is calculated every five years. The AAC for the current period (2001-2005) is 993,400 m³/year.</p> <p>This indicator is updated annually, after aerial photography is taken of the previous years' cutovers. These cutover photographs are used to verify what volumes were harvested from the DFA by operating area and Forest Management District. The 2004 cutovers were photographed in 2005, and the volume harvested in 2004 was verified by these photographs. The verified results for 2001–2004 are shown in the table below. The results for 2005, also included in the table, are an estimate, to be verified after the 2005 cutovers are flown in 2006. CBPPL did not harvest all of its available AAC in 2005.</p> <table border="1" data-bbox="250 1018 1136 1444"> <thead> <tr> <th colspan="7">Annual Allowable Cut 2001 - 2004</th> </tr> <tr> <th>Year</th> <th>Base AAC (m3)</th> <th>Partition AAC (M3)</th> <th>Class 3 AAC (M3)</th> <th>Total AAC (M3)</th> <th>Actual Volume Harvested</th> <th>% of AAC Harvested</th> </tr> </thead> <tbody> <tr> <td>2001</td> <td>800,700</td> <td>86,100</td> <td>106,600</td> <td>993,400</td> <td>787,684</td> <td>79%</td> </tr> <tr> <td>2002</td> <td>800,700</td> <td>86,100</td> <td>106,600</td> <td>993,400</td> <td>743,015</td> <td>75%</td> </tr> <tr> <td>2003</td> <td>800,700</td> <td>86,100</td> <td>106,600</td> <td>993,400</td> <td>889,157</td> <td>90%</td> </tr> <tr> <td>2004</td> <td>800,700</td> <td>86,100</td> <td>106,600</td> <td>993,400</td> <td>749,485</td> <td>75%</td> </tr> <tr> <td>2005</td> <td>800,700</td> <td>86,100</td> <td>106,600</td> <td>993,400</td> <td>829,041</td> <td>83%</td> </tr> <tr> <td>Total</td> <td>4,003,500</td> <td>430,500</td> <td>533,000</td> <td>4,967,000</td> <td>3,998,382</td> <td>80%</td> </tr> </tbody> </table> <p></p> <p>Black & white aerial photograph used to verify area harvested (cutover outlined in red).</p>	Annual Allowable Cut 2001 - 2004							Year	Base AAC (m3)	Partition AAC (M3)	Class 3 AAC (M3)	Total AAC (M3)	Actual Volume Harvested	% of AAC Harvested	2001	800,700	86,100	106,600	993,400	787,684	79%	2002	800,700	86,100	106,600	993,400	743,015	75%	2003	800,700	86,100	106,600	993,400	889,157	90%	2004	800,700	86,100	106,600	993,400	749,485	75%	2005	800,700	86,100	106,600	993,400	829,041	83%	Total	4,003,500	430,500	533,000	4,967,000	3,998,382	80%
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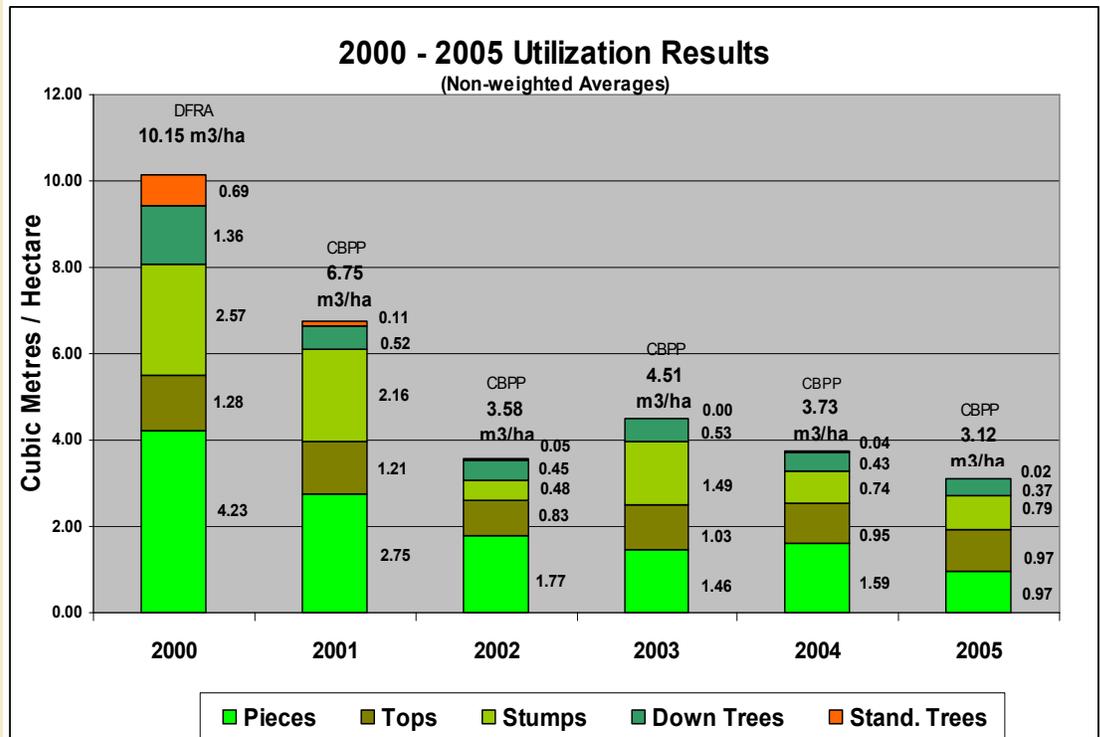




A detailed report has been compiled containing the complete 2005 Fibre Recovery Program. Contact CBPPL Woodlands for further information.

Indicator 5.1.2 Wood Utilization - Timber Benefits

Element	5.1 Timber and Non-Timber Benefits
Value	Timber Benefits
Objective	To maintain timber benefits
Indicator	Wood utilization.
Target	To average 3m ³ /ha of residual commercial volume on cutovers.
2005 Update	<p>The following results are presented in the 2005 Fibre Recovery Program Report:</p> <p>In 2005, only 3.12 m³/ha of merchantable fibre was left behind on cutovers after harvest, compared to 3.73 m³/ha in 2004. This also compares very favorably to 10.15 m³/ha left behind in 2000, and the government standard of 6.0 m³/ha set in 1996. This past year has been our best performance to date.</p>





Winter Monitoring Program

The company continued with its winter monitoring program during 2005. While favorable snow conditions played a large part in improved results, it was also very evident that the operators themselves were showing significant improvement over previous years. Results showed that butt junks were much shorter, tops were smaller and stumps, in particular, were lower.

Since the implementation of its Fibre Recovery Program, CBPPL has made significant gains in the volume of merchantable fibre recovered that might otherwise be left behind following harvest..

Gains in Fibre Recovery Since 2000:

56,240 Cubic Metres

A volume of fibre equal to:

1,250 Truckloads (@45m³/truckload)

12.5 Barges of Offshore Fibre

“Pieces” have contributed most to fibre recovery since 2000, with a volume of 3.26 m³/ha recovered. Pieces are all processed or partially processed sections of fir or spruce, ≥ 0.5 m in length, with a minimum top diameter of 8.0 cm.

Indicator 5.1.3 Timber benefits– Non - traditional Fibre

Element	5.1 Timber and Non-Timber Benefits
Value	Timber Benefits
Objective	To maintain timber benefits
Indicator	Amount of recorded non-traditional fibre that comes off the DFA.
Target	To make available the total AAC in non-traditional species to individuals and commercial operators.
2005 Update	CBPPL has continued to make available the AAC in non-traditional species to individuals and operators, and the total estimated harvest in 2005 was the same as in the previous three years. The Hardwood Transfer Agreements with the Department of Natural Resources in Forest Management Districts 14 and 17 have been expanded to include Forest Management District 9. These agreements endeavor to direct high quality hardwood sawlogs to the local hardwood sawmills working in those particular Districts. The new hardwood AAC for 2006–2010 for CBPPL is 99,410m ³ .





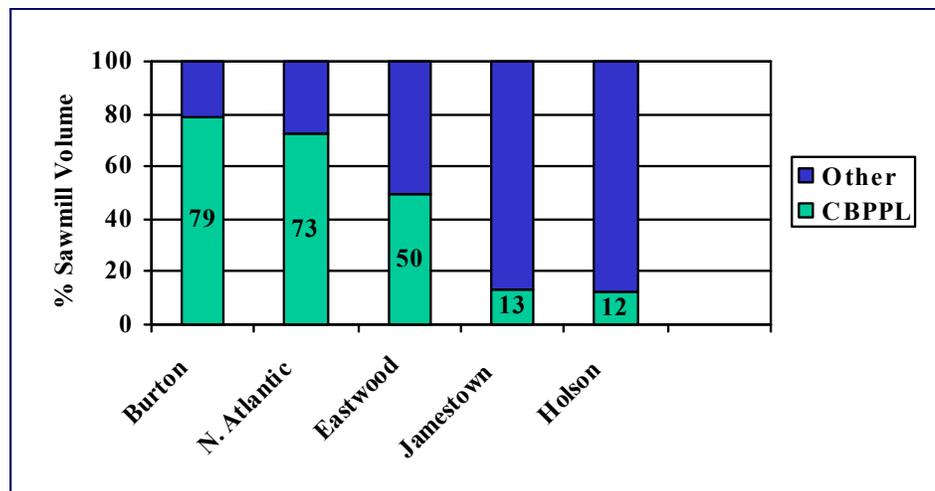
Indicator 5.1.4 Sawlogs Available



Approximately thirty-nine percent of the total sawlogs exchanged in 2005 were random, i.e., sawlogs 10 feet or greater in length. Random sawlogs are essential for the viability of twin or band sawmills.

Element	5.1 Timber and Non-Timber Benefits
Value	Timber Benefits
Objective	To maintain timber benefits
Indicator	Amount of sawlogs exchanged with integrated sawmills.
Target	To make available 100,000 m ³ of sawlogs/year. Note: The conditions originally included in the target have been moved to Forecast.
2005 Update	<p>In 2005, CBPPL had sawmill exchange agreements with five sawmills: North Atlantic Lumber, Burtons Cove Logging & Lumber, Eastwood Forest Products, Jamestown Lumber, and Holson Forest Products (a new, small exchange for 2005). Rideout & Milley, who had exchange agreements in previous years, arranged with CBPPL not to exchange sawlogs and pulpchips in 2005. Northco Forest Products, who also exchanged with CBPPL in past years, was shut down for the entire year, making no exchange possible.</p> <p>In 2005, CBPPL delivered a total of 117,000 m³ to five sawmills, comprised of 6,000 m³ of bushrun, 65,000 m³ of stud logs, and 46,000 m³ of random length sawlogs. This was the second largest annual delivery of sawlogs to sawmills from CBPPL Contractors since the start of the sawlog exchange program in 1992. This volume could have been higher, as a significant volume of sawlogs was available in FMD 09, but no market existed with Northco shut down.</p> <p>For twin or band sawmills such as Eastwood, Burtons Cove, and Holson, a high percentage of random sawlogs is essential for their viability. In 2005, random sawlogs, as a percentage of the total sawlogs, was 39.3 %. This was the highest content of random sawlogs we have produced in a year.</p>

% Sawmill Furnish From CBPPL – 2005





Indicator 5.1.5 Outfitters– Non- Timber benefits

Element	5.1 Timber and Non-Timber Benefits
Value	Non-Timber Benefits
Objective	To help maintain commercial opportunities
Indicator	The number and type of interactions with outfitters and other commercial operations
Target	To respond to and negotiate to resolve concerns raised by individual commercial operators on the DFA (As per terms of Newfoundland and Labrador Outfitters Association Memorandum of Understanding and an equivalent process for other parties).
2005 Update	During 2005 CBPPL continued to dialogue with outfitters to resolve issues raised. Specifically, issues around outfitting operations in Forest Management Districts 6, 9, 15 and 16 were discussed.



Indicator 5.1.6 Recreational Users– Non - Timber Benefits

Element	5.1 Timber and Non-Timber Benefits
Value	Non-Timber Benefits
Objective	To help maintain recreational opportunities on the DFA
Indicator	Interactions between CBPPL and recreational users
Target	To respond to all concerns raised by organized recreational groups, or any other group, using the DFA.
2005 Update	CBPPL held its annual meeting with the NL Snowmobile Federation and additional meetings with regional snowmobile clubs. Discussions were also held with tourism operators from the Bonne Bay area, who expressed their concerns about the viewshed along the Northern Peninsula highway, from Deer Lake to Gros Morne National Park.





The focus for 2006 is to maximize the percentage of random sawlogs, improve sawlog quality, and maximize sawlog production from all stands.

Indicator 5.2.1 Sawlogs Available—Forest Based Communities

Element	5.2 Communities and Sustainability
Value	Employment in the forest sector
Objective	To help maintain the economic viability of sawmills.
Indicator	Amount of sawlogs exchanged with integrated sawmills.
Target	To make available 100,000 m ³ of sawlogs/year.
2004 Update	<p>In 2005, CBPPL had sawmill exchange agreements with five sawmills: North Atlantic Lumber, Burtons Cove Logging & Lumber, Eastwood Forest Products, Jamestown Lumber, and Holson Forest Products (a new, small exchange for 2005). Rideout & Milley, who had exchange agreements in previous years, arranged with CBPPL not to exchange sawlogs and pulpchips in 2005. Northco Forest Products, who also exchanged with CBPPL in past years, was shut down for the entire year, making no exchange possible.</p> <p>In 2005, CBPPL delivered a total of 117,000 m³ to five sawmills, comprised of 6,000 m³ of bushrun, 65,000 m³ of stud logs, and 46,000 m³ of random length sawlogs. This was the second largest annual delivery of sawlogs to sawmills from CBPPL Contractors since the start of the sawlog exchange program in 1992. This volume could have been higher, as a significant volume of sawlogs was available in FMD 09, but no market existed with Northco shut down.</p> <p>For twin or band sawmills such as Eastwood, Burtons Cove, and Holson, a high percentage of random sawlogs is essential for their viability. In 2005, random sawlogs, as a percentage of the total sawlogs, was 39.3 %. This was the highest content of random sawlogs we have produced in a year.</p>



**2005 SAWLOG EXCHANGE
LUMBER & PULPCHIP VOLUME/VALUE**

Volume

CBPPL Sawlogs	=	117,000 m ³
Lumber Production	=	26 million fbm
Pulpchip Production	=	52,650 m ³

Value

Lumber (FOB Sawmill)	=	\$10,400,000
Pulpchips (FOB Sawmill)	=	\$1,600,000
Total Value	=	\$12,000,000



Indicator 5.3.1 Roads Accessible—Forest Access

Element	5.3 Fair Distribution of Benefits and Costs
Value	Forest Access
Objective	To ensure that roads constructed are accessible/available to the public.
Indicator	Percent of resource roads in the DFA under CBPPL control that are accessible to the public.
Target	To have 95% of resource roads in the DFA accessible to the public subject to natural reclamation and other agreements (Memorandums of Understanding).
2005 Update	Based on the roads database for 2003, it was determined that 46% of CBPPL limits are accessed by roads. During 2005, all active roads on CBPPL limits were accessible to the public. The percentage of the DFA accessible by roads will be updated for the next version of the SFM plan.



Indicator 5.3.2 DFA Wages- Fair Wages

Element	5.3 Fair Distribution of Benefits and Costs
Value	Fair Wages for DFA Workers
Objective	To ensure that DFA workers are earning appropriate wages.
Indicator	Wages of CBPPL workers compared with Provincial average wages.
Target	To maintain DFA wages in line with the Provincial average wage.
2005 Update	To date DFA wages have been higher than the provincial average wage and this trend should continue, subject to existing Collective Agreement with CEP Local 60N. This indicator will be updated after the next census is conducted in 2006.



CCFM Criterion 6
Accepting
Society's
Responsibility for
Sustainable
Development

Indicator 6.2.1 Aboriginal Use– Traditional Activities

Element	6.2 Respect for Aboriginal Forest values, Knowledge and Uses
Value	Traditional uses
Objective	To maintain traditional aboriginal uses in the DFA.
Indicator	Traditional activities presently followed by Aboriginal people who use the DFA.
Target	To continue to make the DFA available to Aboriginal peoples for traditional use.
2005 Update	The Corner Brook Indian Band Council is a member of the Federation of Newfoundland Indians and is represented on our Public Advisory Committee by Ed Webb. One area that was highlighted by the Corner Brook Indian Band as having importance for the band for traditional uses (trapping of muskrat) is the Meadow Pond and Brook Area west of Corner Brook. It has been noted that this area contains traditional hunting camps that were constructed for use by Aboriginal people in the 1930-40's. Ed Webb has met with CBPPL Woodlands Planning Department to locate this area and to establish a buffer zone around it. This area will be added to the Special Places Program (see <i>Indicator 1.4.1, Special Places</i>).

Indicator 6.3.1 Public Involvement in SFM - Level of Satisfaction

Element	6.3 Public Participation
Value	Public Involvement in SFM
Objective	To increase the effectiveness of public participation in SFM.
Indicator	Level of satisfaction of participants in planning processes.
Target	To report on the level of satisfaction of members of the PAC with the SFM Planning Process and take corrective action to address deficiencies if required.
2005 Update	In 2004, Sara Wallace, a UNB Forestry and Environmental Management student under the supervision of Tom Beckley, initiated a nation-wide comprehensive study of public participation in forest management. CBPPL's Public Advisory Committee was involved in the study, completing two surveys (pre-process and mid-process) in 2004. The survey was quite comprehensive, and included committee members' motivation for attending as well as their opinions on agenda setting, the meeting environment, learning expectations and experience, outcome expectations, information needs, levels of understanding, and suggestions for improvement. A detailed report presenting the results of the pre-survey and mid-survey conducted by Ms. Wallace is available at the Woodlands office of CBPPL. A third survey was conducted by CBPPL in the fall of 2005, using the same survey and methods as above. The overall results of this last survey are very positive. In general, PAC members feel that CSA-Z-809 certification is worthwhile and important to maintain, to ensure the various stakeholders have vital input in the sustainability of the forest resource.



The PAC visited harvesting operations in the Corner Brook watershed during one of their field tours. CBPPL usually schedules two field trips per year to acquaint members with forest management practices on their DFA.



PAC comments from the latest survey include:

Professionalism:

“ Cooperation from all sides has been refreshing.”

Continual improvement:

“ The process is working. The more time we put into the process the better it will become.”

Respect of all stakeholders:

“ Very informative. I will continue to attend to learn more about issues and concerns of other groups.”

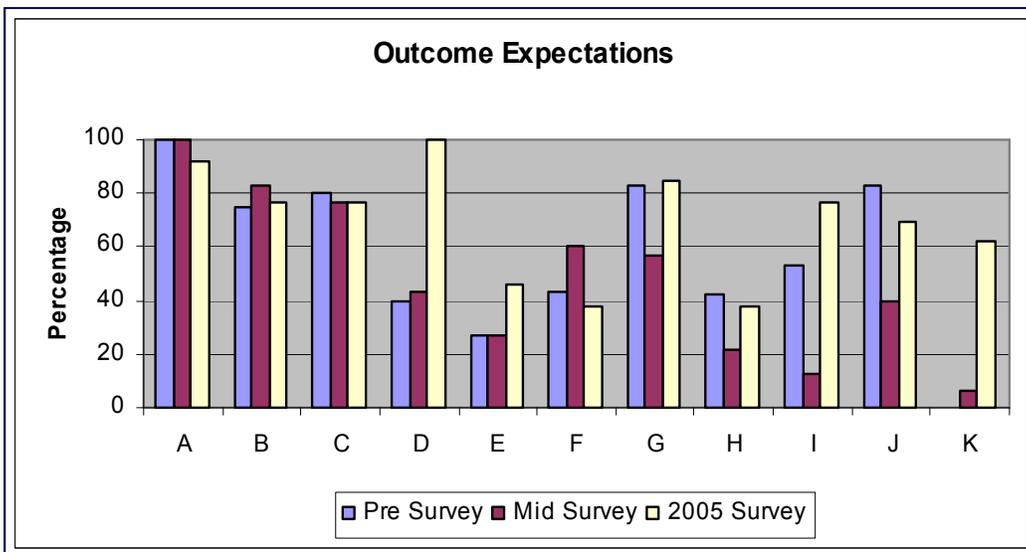
Committed to the process:

The survey illustrated that members of the PAC dedicated an average of 2 hours per week to the process.

The figure below describes the PAC members’ expectations for the outcomes of the public participation process.



PAC members were joined by the national CSA Technical Committee for Sustainable Forest Management on a field tour at Loggers School Road. The tour focused on diversity of forest types and age classes, snags, recreational opportunities, sufficient regeneration after harvest and productive forest ecosystems.



- A Sustainable Forest Management Plan for CBPPL’s defined forest area.
- B. Clearly defined Criteria and Indicators for CBPPL’s defined forest area.
- C. Better communication between various stakeholder groups.
- D. A better working relationship between industry and other forest users.
- E. Consensus in the Region regarding optimal forest use for CBPPL’s defined forest area.
- F. Consensus in the province regarding optimal forest use for CBPPL’s defined forest area
- G. A process for monitoring the actions and decisions specified in the plan.
- H. Designation of harvest scheduling and locations of harvest.
- I. Strategies for mitigating potential negative effects of harvesting (stream buffers, road crossings, block size, etc) .
- J. Allocation of forest areas for specific uses.
- K. Values statements for various forest users

A detailed report has been compiled containing the complete Public Advisory Committee Survey. Contact CBPPL Woodlands for further information.



Public participation in CBPPL planning processes ensures public input into sustainable management of the forest.

CBPPL will continue to provide information on ecosystem processes and management practices.



Crosscut saw event in the Lumberjack Challenge.

Indicator 6.3.2 Public Involvement in SFM – 5 Year Planning Process

Element	6.3 Public Participation
Value	Public Involvement in SFM
Objective	To increase the effectiveness of public participation in SFM.
Indicator	Amount and diversity of participants in forest management planning.
Target	To invite and encourage representation from all interest groups and the general public in the 5-Year Planning Process, as well as any other planning process that requires public input.
2005 Update	A planning team has been formed in Gander to prepare new 5-Year Plans for Forest Management Districts 4, 5, 6 and 8, on CBPPL, Abitibi Consolidated and Crown limits. Similar planning teams are in place in Springdale for Forest Management District 9 and in Deer Lake for Forest Management District 16. Some of the planning teams have remained as a Monitoring Committee, and two of these (District 5/6 and District 9) have held field trips with CBPPL on the DFA.

Indicator 6.4.1 Public Awareness—Increase Public Knowledge

Element	6.4 Information for Decision Making
Value	Public Awareness
Objective	Public education initiatives that increase the public's knowledge of ecosystem processes and management practices.
Indicator	Number of public education initiatives.
Target	To continue to inform the public and interested parties about ecosystem processes and management practices through various formats (media, webpage, newsletters, annual report).
2005 Update	<p>In 2005 CBPPL Woodlands produced the 2004 Environmental Progress Report, an annual account of our performance in environmental management on our operations. The 2004 SFM Indicator Report was also produced, the first annual update of progress of the objectives outlined in the SFM plan.</p> <p>The Company stepped up its participation in National Forest Week (NFW) activities: presenting in a Lunchtime Talk series; conducting mill tours with a “Woodlands bend”; participating in the NFW Crosscut Challenge; acting as the guest speaker on an open-line radio show about forestry; and contributing articles to the Newfoundland and Labrador Forest Protection Association supplement to the Robinson-Blackmore papers. A CBPPL staff member conducted a television interview with CBCTV on the insect infestation on our DFA. CBPPL was also involved in organizing and hosting the 2005 Great Newfoundland and Labrador Lumberjack Challenge, which saw seven teams from across the Island get together to celebrate the Province’s forest history.</p> <p>CBPPL Woodlands held two Public Advisory Committee meetings in 2005, and two PAC field tours with 46 participants. Other organizations were taken on tour as well, including Wildlife Habitat Canada’s Board of Directors. The Company also held numerous meetings with service organizations, town and city councils and planning teams.</p>



2005 Update

CBPPL had a lot of involvement with schools in 2005. Staff led field tours involving over 250 high school and college students. CBPPL staff also visited schools on the DFA, giving presentations to over 260 students. Each year staff answers many telephone and email requests for information from students, and the topics of interest in 2005 were pine marten, and logging in Main River. CBPPL also sponsored a high school science teacher to attend the 4-day Canadian Woodlands Forum, Atlantic Teachers Tour.



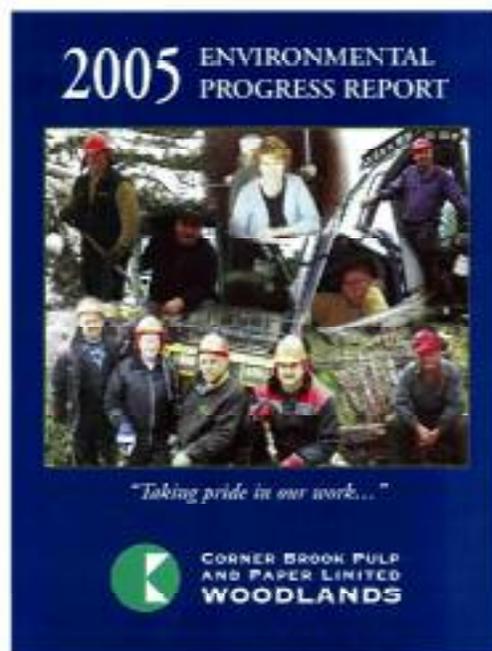
Planting seedlings has been an activity of the Scouting Movement for many years.

Check out our 2005 Environmental Progress Report !

Our Annual Environmental Progress report has been published since 2000. It describes CBPPL Woodlands Environmental Management System and highlights the continual improvement of our operations.

Some of the highlights of the 2005 Environmental Progress Report are:

- Proving We're Up To Snuff : *An Independent Audit of Our Environmental and Sustainable Forest Management System*
- Everything Counts: *Progress Made in 2005 on the SFM Targets*
- Meeting Environmental Targets: *How We Measure Up*
- Measuring Environmental Compliance: *A Monitoring System With a Bite*
- CBPPL's Public Advisory Committee: *Making Their Voices Heard*
- Walks and Talks: *Learning About Your Forest*
- Outstanding Performances: *Our Proudest Moments*



The 2005 Environmental Progress Report and the 2005 SFM Indicator Report can both be viewed on the CBPPL website at: www.cbpppl.com

For additional copies of this report or information on
CBPPL Woodlands, please contact:

Jamie Kennedy

Environmental Management Representative

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Woodlands Facts

-  Operate in 8 Forest Management Districts, managing over 2 million hectares of land on the Island.
-  Annual Allowable Cut of 923,000 m³.
-  Harvest in excess of 8,000 hectares per year.
-  Build in excess of 300 kilometers of forest access road per year.
-  550+ Woodlands Employees
-  Annual planting- 2.8 million trees
-  Annual pre-commercial thinning - 1400 hectares



Humber River

We're on the Web!

www.cbpppl.com