

**SmartWood Certification Assessment of
Haliburton Forest and Wildlife Reserve Ltd.**

Final Report

**submitted
by**

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I. INTRODUCTION

This report presents the findings of an independent certification assessment conducted by a team of specialists representing SmartWood, an FSC-accredited certification program of the Rainforest Alliance. The purpose of the assessment was to evaluate the ecological, economic and social sustainability of the forest management operations of the Haliburton Forest and Wildlife Reserve.

This report contains six sections of information and findings. Sections one through three will become public information about the forest management operation which may be distributed by SmartWood or the Forest Stewardship Council (FSC) to interested parties. Sections four through six are confidential, to be reviewed only by authorized SmartWood and FSC staff and reviewers bound by confidentiality agreements.

The purpose of the SmartWood Program is to recognize good forest management through independent evaluation and certification of forestry practices. Forest operations that attain SmartWood certification may use the SmartWood and FSC labels for public marketing and advertising.

GENERAL SUMMARY

1.1 Name and Contact Information

Source Name: Haliburton Forest and Wildlife Reserve Ltd.

Address: RR#1, Haliburton, Ontario, Canada, K0M 1S0

Contact Person: Peter Schleifenbaum

Tel: (705) 754-2198

Fax: (705) 754-1179

1.2 General Background

A. Type of operation: Private landowner

B. Years in operation: 34

C. Date first certified:

D. Latitude and Longitude of Certified Operation: 45°15'N, 78°35'W

1.3 Forest and Management System

A. Forest type and land use: The Haliburton Forest and Wildlife Reserve is located in the Great Lakes - St. Lawrence Forest Region (Rowe 1972). The Haliburton Forest lies within the Algonquin Park Site District (5E site district 9; Hills 1959). Hills (1959) describes 5E9 as an upland area of moderately rolling rock ridges, covered by shallow to moderately deep stony silty sand, largely of granitic origin. Haliburton Forest lies on the southern edge of the Precambrian shield, which explains the granitic origin of the soils. The most notable tree species in this area are Sugar Maple (*Acer saccharum*), American Beech (*Fagus grandifolia*), Yellow Birch (*Betula alleghaniensis*), Eastern Hemlock (*Tsuga canadensis*) and Eastern White Pine (*Pinus strobus*). Tolerant hardwoods dominate, particularly on the upland sites.

Logging was the early economic force in the area and it still holds an important if not dominant role today. The area was first logged in the 1860's, when the land was owned by the Canada Land and Emigration Co. based in London, England (Stitt 1994). Despite numerous attempts to attract farmers to the area, the rocky ridges and lack of soil won out, and settlement was slow. In the mid-late 1800s, logging was focussed on the White Pine. Supplies of large, valuable white pines were soon exhausted, and in 1908, the Donald Wood Products Company established a chemical wood plant that processed thousands of cords of hardwoods (primarily maple) into charcoal, wood alcohol, acetate and wood oil. Hardwood stands were clearcut and cordwood hauled to the Donald mill until 1945. Hardwood sawtimber and veneer was also being logged to meet the demands of furniture producers in southern Ontario. Preferred species included oak, ash, elm, cherry, birch and basswood. In 1944, Hay and Co. commenced operations of their sawmill on Kennisis Lake, with wood acquired from their 60,000 acre holding in the northern Haliburton Highlands (later to become the Haliburton Forest and Wildlife Reserve Ltd.). This mill processed in excess of 150 million board feet of lumber in its 27 years of operations. For the Haliburton Forest, light high-grade partial cutting was the norm at that time.

With improved forest management practices in the last quarter of this century, there has been some improvement in forest quality, especially on those sites with the potential to produce valuable trees. Today, the most abundant, highly valued, commercial species is sugar maple. This species is sought after by many forest product producers, one being a local veneer mill, and another the Tembec mill in Huntsville, who use it to produce hardwood flooring.

Extensive lakeshore development commenced in the Haliburton region in the late 1940s. At this time, the labor force shifted to meet the demands for cottage construction and a seasonal service industry. Tourism continues to be the fastest growing economic sector in the county, and Haliburton Forest has become a major contributor to and benefactor from this industry.

Of the 50 lakes in the HF, 20 of the larger lakes are owned by the Crown, and 30 are smaller-sized lakes owned by HF. The lakes range in size from 12-450 acres. Genetically unique populations of Lake Trout are found in Clear and MacDonald Lakes. There are at least 2,000 acres of wetlands in the HF, including beaver ponds (223 were identified by Ducks Unlimited in 1987), marshes, bogs, fens, and swamps.

B. Size of management unit and area in production forest, conservation, and/or restoration:

The total area included in the Haliburton Forest and Wildlife Reserve Ltd. is 54,378 acres. Of this, 5,000 acres are water, 458 are non-forested lands, and the remainder, 48,920, are forested lands. The total area of productive forest lands is 47,960 acres, the majority of which has been classed as hard maple working group (38,200 acres) and is managed under the selection silvicultural management system (Table 1). The total acreage of the proposed reserves is not yet known.

Table 1. Summary of productive forest lands in HF.

Productive Forest Land	Area in Acres
Hard maple working group	38,200
White birch working group	2,800
Other hardwoods	1,800
Hemlock working group	3,070
Spruce working group	1,380
Pine working group	290
Other conifers	420
Subtotal	47,960*

*Note: 4,586 acres of this subtotal are not available for harvesting (they comprise AOC's, storm areas, and roads).

C. Regional context:

The 54,378 acre privately owned Haliburton Forest and Wildlife Reserve is situated in Haliburton County, an area with extensive forest cover. The HF is the largest remaining parcel of land from the original 403,125 acres bought by the Canada Land and Emigration Company in the mid-1800s. Two other large private holdings are adjacent to the HF, one 6,000 acres in size, and the other 15,000 acres in size. Both these properties are also managed for timber.

Algonquin Park has a 14 km common boundary with HF to the north and east. Algonquin is managed for timber and other uses (primarily outdoor recreation and education) under guidelines enforced by the Algonquin Park Authority. With the exception of First Nations peoples, hunting and trapping are not permitted in Algonquin Park. Snowmobiling is also not permitted within the park. Abutting HF to the west is the Leslie Frost Management Area, a large experimental acreage owned by the Crown and managed by the OMNR.

Cottagers comprise a significant portion of the population of Haliburton County in the summertime. The HF property borders hundreds of cottage lots along Little Kennisis Lake, Kennisis Lake and Little Redstone Lake. Most of these lots are small in size, and extend a short distance from the water's edge.

D. Annual allowable cut covered by management plan:

HF has been harvesting an average of 2000 acres per year and harvesting approximately 1.6 million fbm (foot board measure) per year for 26 years. A 1995 windstorm that affected 5,000 acres of forested lands resulted in extensive salvage operations and a temporary increase in annual allowable cut.

E. General description of details and objectives of the management plan/system

Since 1982, the Haliburton Forest has been utilizing an uneven-aged silvicultural system with selection and group selection techniques. Under government funded Woodlot Improvement Agreements, 15 000 acres of HF forests were inventoried and treemarked between 1978-1988. With the cancellation of these agreements in 1990, Peter Schleifenbaum assumed the full responsibility for the management of the HF. Over the past six years, Mr. Schleifenbaum has entered into contracts with Tembec Forest Products to perform the harvesting activities in the Haliburton Forest (Appendix B). While Mr. Schleifenbaum remains the manager of HF, overseeing all activities, Tembec implements daily harvesting operations and has their own quality control system (including a manual outlining techniques guidelines, and policies).

A comprehensive long-term management plan for the Haliburton Forest and Wildlife Reserve is currently in preparation, and will be completed by August 31, 1998. At the present time, the various components of the management plan are at different stages of development. The long-term goals for the HF, as stated in the management plan, are to maintain biological diversity and resource sustainability, apply progressive resource management techniques, function as a multiuse operation on a user-fee basis, support local businesses and value added forest products, and encourage scientific research and education. A variety of management tools are used to "secure and where possible enhance the diversity, structure and health of forests at Haliburton Forest". Information necessary to finalize the management plan has been compiled, including FRI (forest resource inventory) maps, OMNR inventories under the Woodlot Improvement Agreement Program, harvesting records, tree-marking guidelines, sustainable yield calculations, an assortment of biological surveys and studies, a preliminary gap analysis to develop a system of protected areas, etc.

Currently, most harvest planning is done on a four- to five-year basis. The process for determining annual operations has been for Peter Schleifenbaum to identify to Tembec a preferred cut block. Cut blocks generally have an approximate area of 2,000 acres. Tembec may cruise the operable stands within the cut block and prepare a proposal describing the silvicultural systems, proposed roads, an estimate of the amount of material that is expected to be produced from the operation and stumpage rates. Additional work and/or special management considerations are further discussed and final contract conditions are agreed upon. Contingency areas, usually the following year's operation, are also discussed.

The cut block is marked by provincially certified tree markers employed or contracted by Tembec. The tree markers follow provincial guidelines (OMNR 1993) as well as incorporate Peter Schleifenbaum's additional management requirements (See Appendix C). Tembec's cut foreman inspects the entire block to flag road location and skid trails. Once operations commence, he is responsible for the harvesting operations.

The following outlines many of Haliburton Forest's goals and guidelines for forest management:

Silviculture

- Treemarking shall manage for an uneven-aged forest with a variety of vigorous, multi-layered, and diverse stands of timber.
- Residual basal area in tolerant hardwood stands shall not fall below 15 sq. m./ha (60 sq. ft./acre); higher residual basal area shall be retained in stands dominated by conifers.
- Generally, residual basal area should not go below 1/3 of the starting basal area (Tembec)

- Only trees greater than 20cm (8") DBH are marked, except where smaller trees host infectious diseases.
- Retain ten large conifers/ha as well as all super canopy trees.
- Tembec is cutting on a 20-year cycle though Peter Schleifenbaum is researching the possibilities of shifting to a 10-year cycle.
- White or red pine are not harvested.
- Avoid clearcutting, however to achieve the regeneration of shade intolerant tree species, up to 10% of a stand area shall be subjected to group selection cutting, creating stand openings of up to 2 tree lengths in size; an additional 10% shall be subjected to shelterwood cutting, reducing the residual basal area to 30-50 sq. ft. /acre.
- Protect remnant old growth trees, including softwoods and hardwoods, and other special resources.

Harvesting Methods and Roads

- Harvesting will focus on the removal of non acceptable growing stock after 100 years of highgrading.
- 10% of the HF is protected from harvesting by a network of reserves and Areas of Concern.
- Extraction of wood is carried out by skidders, forwarders and horses.
- All road building activities meet provincial specifications.
- Rehabilitation of old logging roads is preferred to the building of new roads.
- Higher basal areas are left along road corridors to balance expected die-back.
- A basic, permanent road infrastructure is established.

Watercourses

- Operations near watercourses and instream crossings follow all provincial specifications for the protection of water quality.
- No marking is allowed within one tree length or 50 feet of shorelines of significant lakes and rivers.
- Streams and lakes are protected by a no cut zone that is a minimum of 30m in width, and by an additional modified reserve zone of 90m with no roads, landings or pits. The width of the no cut zone increases with slope (Tembec).

Wildlife

- Leave an average of 7-8 cavity trees per hectare.
- Avoid marking near actively-used cavity trees (Tembec).
- Leave 7-8 mast trees per hectare, with a preference for those that show signs of use by wildlife (Tembec).
- Do not mark within a radius of 100 feet of nests of birds of prey and herons; harvesting operations shall be timed to minimize disturbance to active nests.
- Avoid marking single standing conifer trees within a hardwood forest (Tembec).
- Leave medium-large hardwood trees in hemlock stands (Tembec).
- Maintain canopy cover above 60% within deer yards (Tembec).

Aesthetics and Adjacent Landowners

- No road building within 0.5 km of property boundaries.
- Attend meetings with neighboring cottagers and explain timing and whereabouts of harvesting operations.

In addition to timber harvesting activities, HF is also a destination for campers, fishermen, hunters, cyclists, snowmobilers, and other members of the public. As such, this intensively used property requires a careful balance amongst the different uses, such that one activity does not interfere with the enjoyment of other activities. The non-timber uses of the HF include the following:

- 340 long-term campsites and 12 short-term campsites located on 17 lakes, with 2-80 campsites per lake;
- Fishing on most if not all lakes and voluntary size restrictions on catches of Lake Trout; utilization focussed on certain lakes, with targeted stocking of rainbow trout, speckled trout and splake;
- 18 hunt camps, each of which house 6-30 hunters, and covers a hunting zone of 2,500 acres;
- 1 minor and 2 major trap zones;

- A wolf centre built in 1996 that has an observatory overlooking the feeding area in the wolf compound, a display area with numerous exhibits, and a small cinema/classroom (in 1997, there were 15,000 visitor days to the Wolf Centre);
- Educational activities, included self-guided nature walks, lectures, evening programs, field courses, bird-a-thons, etc.;
- Boating, mountain biking, hiking, and in the winter, snowmobiling on 300 km of snowmobile trails; and
- Use of the facilities for conferences, workshops, and openhouses.

The owner (majority shareholder) and manager of the Haliburton Forest is Peter Schleifenbaum, an RPF with a doctorate in forestry. Mr. Schleifenbaum and his wife, an accountant, have 10 full-time employees, and 4 part-time employees. On staff are 2 outdoor educators, one biologist, one fish and wildlife technician, and 9 maintenance and office staff.

1.4 Environmental and Socioeconomic Context

The communities of Haliburton County are relatively small and scattered, resulting in a low population density relative to most of south and central Ontario. Haliburton County lies near the top of the watershed, partially on the southern edge of what is known as the "Algonquin dome". As the name suggests this area includes Algonquin Park to the north. This is an area of slightly higher elevation dominated by the granite of the Precambrian shield. Due to poor soils, a short growing season, and rough terrain there is little agriculture in this region. Logging has been the economic mainstay until the recent development of tourism. Mining, of great potential in much of the Precambrian shield, has produced little economic activity in this area. These conditions have left most of Haliburton County with an extensive forest cover, with about half in private ownership and half in crown land.

This region experiences fewer land use conflicts between loggers, tourist operators, and environmentalists that are typical of the Temagami or Algoma areas further north in the Great Lakes-St. Lawrence forest. This may be a result of the long and persistent history of logging. Continuous highgrading during the early and middle part of this century, first for pine and later for hardwoods, has left the forest in rather poor condition. As a consequence "wilderness battles" have bypassed Haliburton. However, there has been friction between cottagers and the HF over the use of roads by logging trucks.

As a relatively intact (although highgraded) forest, Haliburton is part of an extensive forest area that starts on the edge of the Precambrian shield, and does not diminish until the tundra along the coast of James and Hudson Bay in northern Ontario. The area is rich in wildlife, and is particularly well-known for its abundance of wolves, bears and moose.

With the onset of cottage development in the 1940s, the economy in Haliburton County shifted from a dependence on logging, sawmilling, and agriculture to a reliance upon the service sector. Today, the main employers in this economically depressed region are the service sector (60%), followed by the trade, construction and manufacturing sectors. The timber industry continues to dominate the manufacturing sector, directly employing at least 15% of the population (Bull 1994). This percentage has remained stable since the early 1980s. The forest industry provides year-round employment as well as requires higher skills and wage levels than the tourism industry.

Average employment income in 1990 was \$20,000 (Canadian dollars), and the estimated per capita income for 1993 was \$15,000 (Bull 1994). Per capita transfer income was \$4500, nearly 45% higher than the provincial average, and consisted primarily of child benefits, pension income, employment insurance, and refundable tax credits. Nearly 51% of the population is dependent on federal and provincial transfer payments (Bull 1994). Employment opportunities are highly seasonal, with the unemployment rate in the 1990s ranging from a summer low of 10% to a winter high of 35%.

1.5 Products Produced

A. Species and products: Haliburton Forest produces logs of the following species (in order of relative abundance): Hard Maple, Beech, Soft Maple, Yellow Birch, Spruce, Hemlock, Oak and Cherry.

B. Actual Annual Volume Produced: Approximately 2 million board feet are produced annually by Haliburton Forest. Production in 1995 was higher (2.7 million board feet) due to salvage operations after a severe windstorm.

1.6 Chain-of-Custody

As a vendor of logs, Haliburton Forest will not receive a chain of custody certificate. Haliburton Forest has the information systems in place in order to meet chain-of-custody requirements of the SmartWood Program.

A. Products Covered by Chain of Custody Certificate: Not applicable

B. Approximate Annual Quantity of Products: See section 1.5 B

C. Chain of Custody Certificate Number: Not applicable.

II. THE CERTIFICATION ASSESSMENT PROCESS

2.1 Assessment Dates

The Haliburton Forest and Wildlife Reserve Ltd. applied for SmartWood certification in November 1997. Upon receipt of preliminary management information and documents, SmartWood staff began discussions and a scoping assessment with Haliburton Forest. These initial efforts focused on understanding current management systems and identifying potential obstacles to certification. Following the screening and formal contracting processes, the assessment team was identified and a 5-day field assessment took place during the week of December 15th, 1997.

2.2 Assessment Team and Peer Reviewers

SmartWood typically requires a 3 person team for assessments exceeding 25,000 acres of land. Because this was SmartWood's first certification in Canada, SmartWood decided that 4 team members were needed. The team and their specializations included:

Jon Jickling, Team Leader, Forest Economist, SmartWood

Tom Clark, Forest Ecologist, CMC Ecological Consulting

Robert H. Keen, R.P.F., FORMAC

Minga O'Brien, Biologist (covering social and community issues), SmartWood

Peer review of the findings and conditions contained in the team's Assessment Report was conducted by three regional experts: a forester, an ecologist/environmentalist, and a forester/ecologist.

2.3 Assessment Process

The Haliburton Forest assessment was structured according to FSC-accredited SmartWood procedures and included the following major steps:

1. Initial Team Planning - review of scoping information.
2. Assessment of Organization's Management - review of Haliburton Forest documents and management plans, interviews with Haliburton Forest staff.
3. Field Assessment - 4 days with the 4-person team.
4. Group Analysis and Presentation of Preliminary Findings - team discussion during and immediately following field work.
5. Final Report and Peer Review - preparation of draft report, circulation to peer reviewers, re-draft based on peer review comments.

Based on the pre-assessment materials, including interviews with staff and review of forest management procedures and policies, the team developed a list of sites to be visited, e.g. a current harvest, a recently-finished harvest, a nature reserve, etc. Sites were also selected at random.

The team's field visits included past, future and on-going harvest sites, natural reserves, and recreational facilities. There were 63 criteria evaluated during the SmartWood Assessment of Haliburton Forest. Direct fieldwork and interviews with company staff were supplemented by interviews with relevant stakeholders in the forest operation including local and regional government officials, community groups, environmental groups, subcontractors, and adjacent landholders. A Stakeholder Consultation Public Briefing Paper was also circulated by SmartWood to various interested parties.

2.4 Guidelines

The SmartWood Northeast Regional Guidelines for the Assessment of Natural Forest Management formed the basis of the certification assessment of Haliburton Forest. Upon request by the Great Lakes-Saint Lawrence FSC Regional Initiative, SmartWood incorporated portions of the draft Great Lakes – St. Lawrence standards (GLSL principle 5: *Benefits from the Forest* and Principle 6: *Environmental Impact*) into the SmartWood Northeast guidelines. This procedure is consistent with SmartWood's policy of encouraging assessment teams to adapt SmartWood standards to local conditions. For transparency purposes criteria from the GLSL standards are marked in this report with an asterisk. A separate report to the GLSL Steering Committee will be produced by SmartWood providing feedback on the applicability of the GLSL criteria under field conditions.

III. RESULTS, CONCLUSIONS AND RECOMMENDATIONS

3.1 General Discussion of Findings

Strengths

1. HF is a well integrated, multiple use operation that utilizes Tembec's tree marking program and regional marking guidelines in the application of appropriate forest management principles to their harvest operations.
2. HF management has made the property very accessible to the local community. He has hosted numerous open houses, workshops, fund-raisers and other community events, as well as placed an emphasis on educating the public about his forest operations and creating a model of good forest management. HF also manages for recreational opportunities, including camping, boating, biking, hunting, fishing and snowmobiling.
3. HF has encouraged universities, colleges, schools, and organizations to hold courses and workshops on the property. He also plans to make use of much of the research produced by government agencies, universities and colleges from their work at the HF, incorporating it into his database of ecological inventories, into his forest management plan, and into solving resource management problems.
4. HF, in cooperation with Tembec, has demonstrated a strong commitment to forest restoration and the protection of non-timber values, including initiatives to set aside nature reserves, areas of old growth forest, protection of genetically unique Lake Trout, etc.

Weaknesses

1. Although Tembec's tree-marking system is exemplary, and Mr. Schleifenbaum is a diligent supervisor of their operations, there are concerns that current harvest levels are not definitively sustainable (See Condition 1).
2. There is a lack of documentation, filing, and storage of information from forest surveys, timber harvests, and forest planning operations. This lack of information makes it difficult to demonstrate the success and sustainability of harvest operations (See Conditions 1, 2, 3, and 5).
3. There are no comprehensive inventories of non-timber values in the HF, nor is there a formal mechanism by which non-timber values are documented and the information exchanged between Tembec contractors and the HF (See Conditions 1, 3 and 5).

4. A complete Forest Management Plan was not available for the audit (See Condition 1).
5. To promote snowmobiling and other recreational activities, roads throughout the HF have been left open to recreational uses. Although management appears to recognize that this may be a problem, they have not developed and/or implemented a clear policy on road decommissioning (See Conditions 1 and 6).

3.2 Certification Decision

The purpose of this assessment was to determine if the Haliburton Forest and Wildlife Reserve Ltd. met the requirements to be certified as a SmartWood Certified Forestry Operation. Richard Donovan, Director of the SmartWood program, reviewed the HF assessment report and the peer reviewers comments. Based on his findings, Mr. Donovan made the decision to certify the Haliburton Forest and Wildlife Reserve Ltd. as a well-managed source of certified wood. Mr. Donovan made a number of minor modifications to the conditions, and added two more as shown below in the summary of conditions.

3.3 Summary of Conditions

Conditions

Conditions are verifiable actions that will form part of the certification agreement that Haliburton Forest will be expected to fulfill at the time of the first audit or as required in the condition. Each condition has an explicit time period for completion. Non-compliance with conditions will lead to decertification.

1. Condition: A completed Forest Management Plan must be submitted to SmartWood by August 31, 1998. This plan must include all the elements required by the SmartWood/Great Lakes St. Lawrence guidelines, in addition to the following components:

- Establish a system to update, maintain, track, and project/forecast forest inventories for timber and non-timber values.
- Given the rarity of red spruce in the region, include a specific prescription for the management of red spruce that addresses biological conservation concerns.
- Haliburton Forest tree marking guidelines shall be modified to meet or exceed provincial guidelines, with special attention towards buffer zones and wildlife.
- Haliburton Forest provide a clear rationale for summer versus winter harvesting on specific forest sites.
- Clearly demonstrate that the rate of harvest of forest products does not exceed levels that can be sustained. The method used must demonstrate how sustainable harvesting levels were determined and how they will be monitored. This method must be based on accurate assessment of the total available productive forest and must take into consideration variance in species composition, stocking, site class, stand age and silvicultural systems used.
- Describe the rationale for the management of small diameter trees.
- Provide a description of the current road infrastructure and develop policies which will minimize negative impacts associated with road systems (e.g. road closures, roadless areas).
- Describe plans for training and orientation of staff and contractors in relation to modification in policies and/or practices.

2. Condition: For all future harvesting operations, HF must compile cruise information for each proposed operating block prior to harvest.

3. Condition: Prior to completion of the management plan, Haliburton Forest shall confirm the list of VTE (vulnerable, threatened and endangered) species likely to occur in HF forests with the Natural Heritage Information Centre in Peterborough and make this list available to the staff and tree markers on an ongoing basis. Information reporting and recording shall follow the methodology described in Condition 5 below.

4. Condition: Throughout the certification period, in order to facilitate chain-of-custody tracking, Tembec (or any operator who has contracted for harvesting on HF) should produce a summary report for each cutting area which

details total production volume broken down by species and product. These reports should be produced for all current and future harvesting operations, and must be readily available for SmartWood annual audits.

5. **Condition:** By the end of Year 1, develop a map-based system to identify, track and record information related to an operating area, including cut boundaries, roads, forest resource inventories, non-timber values, AOC's, reserves, buffer widths, etc. As part of this system, HF shall ensure that the information is easily conveyed between the tree markers, cut foreman, operators and planning staff.
6. **Condition:** By the end of year 1, HF will complete a more thorough search of the scientific literature on the effects of snowmobiles on air quality and different species of wildlife, particularly those more sensitive to human disturbance. In year 2, Haliburton Forest shall prepare and begin to implement management options to mitigate known and documented impacts of snowmobiles.
7. **Condition:** By the end of year 1, HF shall develop mechanisms (e.g. written procedures, and training or orientation) to ensure that harvesting staff implement HF/Tembec policies and practices to minimize erosion and rutting.
8. **Condition:** During Years 1 & 2, HF shall coordinate their forward-looking protected areas strategy with the landscape level gap analyses that are ongoing through the Lands For Life process. By the end of Year 2, HF should have evaluated these analyses and adjusted their proposed protected areas accordingly.
9. **Condition:** During Years 1 & 2, HF shall monitor the implementation of the ecosystem classification system in central Ontario. By the end of year 3, HF should have evaluated the usefulness of the system and how it can be used to improve management of their own forest. This information will be presented to SmartWood in the 3rd annual audit.

IV. GENERAL INFORMATION

- 4.1 **Name of person(s) in charge of forest management operations.**
Peter Schleifenbaum
- 4.2 **Name, size and location of each forest management area.**
The Haliburton Forest and Wildlife Reserve Ltd. is a 54,378 acre property located in the Algonquin Park Site District (5E site district 9), Haliburton County, Ontario.
- 4.3 **Managed by (government, company, community, other).**
Peter Schleifenbaum (harvesting operations supervised by Tembec's Peter McElwain and Gerald Kroes).
- 4.4 **What is total volume (actual or estimated, preferably in cubic meters) of timber produced?**
In 1997, 2.5 million fbm of sawlog timber were harvested, as well as an additional and similar volume of pulp and firewood. Over the last 26 years, an average of 1.6 million fbm were harvested annually.
- 4.5 **Types of processing facilities owned or managed by the applicant (please be specific)?**
The applicant owns a circular saw mill that is used for educational purposes in association with the Logging Museum at the Base Camp.
- 4.6 **What percentage of timber supply comes from:**
100% from forestland that is managed by Peter Schleifenbaum.
- 4.7 **Who owns the land where forest management operations take place (e.g. government, company, community, individual)?**
Mr. Schleifenbaum and his family.
- 4.8 **What type of forest access or ownership agreement exists (titled land, concession, customary use right, other, please be specific)?**
Titled land
- 4.9 **What type of forest is being managed? Primary forest? Secondary forest? Plantation?**
Secondary forest

- 4.10 **How many hectares/acres total are being managed?**
 Total Property Acreage = 54,000
 Total Productive Forest = 47,960
- 4.11 **Are there management plans? If so, how many and covering how many hectares/acres?**
 The management plan for the Haliburton Forest and Wildlife Reserve Ltd. is presently in preparation, and will be completed by August 31, 1998. It will be effective for the entire property.
- 4.12 **What percentage of total volume of timber comes from each type of forest?**
 Almost all harvest operations occur within the hard maple working group. This working group comprises 80% of HF's productive forest lands. Other forest types that occur within the operating blocks are minimal in size and are generally not scheduled for treated.
- 4.13 **Roughly, what area of forest is being harvested on each year?**
 Approximately 2,000 acres
- 4.14 **Year in which logging operations began?**
 Mid 1800s
- 4.15 **Do logging operations include construction of roads into new forest areas?**
 Yes, some new roads are being constructed, however efforts are being made to rehabilitate old logging roads.
- 4.16 **Principal mode of timber extraction (mechanical or manual, specify equipment used).**
 Skidders, forwarders, and horses where appropriate
- 4.17 **Are areas of exceptional biodiversity known to exist in vicinity of logging?**
 There are no great concentrations of biodiversity in Haliburton that are of national or provincial significance. In fact, wildlife is abundant throughout the area. Although there are a number of plant species that are rare, these species are naturally rare, and probably not vulnerable or threatened, as long as the forest cover remains. The most concern is for the red shouldered hawk, which used to have much greater numbers.
- 4.18 **Which local communities are involved with/affected by logging activities: (please name communities and type of people, e.g. indigenous forest peoples, migrant farmers, other)?**
 The people of Haliburton County and the Haliburton Highlands are most involved with and affected by the logging activities. The high standards of forest management, as well as revenues, jobs, and recreational opportunities generated by the Haliburton Forest and Wildlife Reserve Ltd. have a significant local impact on the economy as well as on regional harvesting practices.

V. CERTIFICATION CRITERIA: SCORE AND FINDINGS

Based on the content and analysis of each criteria, a score has been assigned for each criteria using Table 2 as a guide. Scoring of the criteria is done by the entire assessment team through a consensus process. The following definitions apply, and are the basis for all certification assessments:

Pre-conditions - these are requirements that candidate operations must agree to before certification by SmartWood can take place.

Condition - these are requirements that candidate operations must agree to, and which must be addressed, during the five year recertification period.

Recommendation - these are voluntary actions suggested by the assessment team, but are not mandated or required.