Wood Supply Analysis of Zoning Changes Proposed by the Ontario Parks Board of Directors' Algonquin Park Subcommittee

October 2, 2006

Wood Supply Analysis of Zoning Changes Proposed by the Ontario Parks Board of Directors' Algonquin Park Subcommittee

Executive Summary	3
Anticipated Impacts to Facilities	5
Introduction	6
Management Context	7
Forest Industry and Algonquin Park Forest	7
2005-2010 Algonquin Park Forest Management Plan	9
Planned Areas of Operations	
Historical Utilization	10
Planned and Actual Yields	
Wood Supply Analysis of Implementing Proposed Components	
Available Landbase	12
Harvest Volume	
Access Considerations	16
Impact on Summer Operating Area	
Silviculture	
Investment	
Socio-Economic Impacts	
Community Economic Importance	
Projected Impacts to Facilities	
Opportunities to Offset Wood Supply Reduction	20
List of Figures Figure 1 Algonquin Park Forest wood supply projections (available harvest volume) and historical utilization.	
Figure 2 Ontario Parks Board proposed component areas.	6
Figure 3 Location of receiving facilities and proportion of planned harvest volumes for Algonquin Park Forest (source: Algonquin Park Forest 2005 Forest Management Pla Figure 4 2005-2010 Planned harvest areas and past treated areas within proposed compor Figure 6 Available forest area (from 2005 FMP) contained in Parks Board components Figure 7 Algonquin Park Forest Wood Supply Projections and Historical Utilization	nents9
Figure 8 Tolerant hardwood, all products, projected harvest volumes	
Figure 9 White/Red pine, all products, projected harvest volumes.	15
List of Tables	2
Table 1 Component area summary	
Table 2 Algonquin Park Forest commitments by facility.	
Table 3 Summary of operational factors by component.	
Table 4 Available forest area changes compared to the 2005 FMP available forest area	
Table 5 Projected sawlog & better volume reductions.	
Table 6 Significance of Forestry Labour Force by County	
Table 7 Comparison of Average Income versus Forestry Income by County	
Table o miniculate wood Supply impacts	19

Executive Summary

The Ontario Parks Board has proposed a series of 4 component areas to be rezoned from the Recreation/Utilization Zone of Algonquin Park and added to the Park's Wilderness, Natural Environment or Nature Reserve Zones. The component areas are numbered according to the Parks Board's priorities for protection (1 being the highest). The component areas are considered in a cumulative fashion for the impact analysis (e.g., component 3 impacts are a result of withdrawing the component 1, 2 and 3 areas from forest management). The wood supply impact of re-zoning these areas was determined using the Strategic Forest Management Model and information used in the preparation of the 2005 Algonquin Park Forest Management Plan.

The area of Algonquin Park that is available for timber harvesting is 428,518 ha (managed forest area), or 63% of the total forested area of the Park (Note: this area has been netted down for AOC reserves). Table 1 summarizes the forest areas within each of the components individually and cumulatively.

Parks Board Managed Forest Area in Total Cumulative Cumulative Forest Area **AOC Reserves** Forest Area Total Forest % Reduction Proposal (ha) (ha) Area (ha) in Total (ha) Forest Area **Component 1** 19,708 3,700 23,408 Central/Louisa 5% 23,408 Lakes 9,451 31,109 Component 2 21,658 200m Setback 54,517 11% **Component 3** 5,463 4,706 10,169 120m Setback 64,686 13% on Canoe Routes & **Brook Trout** Lakes **Component 4** 23,762 1,830 25,592 200m-500m 90,278 19% Setback, plus additional areas 70.591 19,687 90,278 Total

Table 1 Component area summary.

Note: Area figures are for Algonquin Park only. Some of the components include areas outside of Algonquin Park and these areas were not included in the analysis.

The available harvest volume is projected to be reduced by a range of 3% to 24% over time (Figure 1) when considering the range of impact (short-, medium-, long-term) of all 4 components. The forest area remaining after the withdrawal of the component 1 area is able to supply the total volume committed for the short and long term, but not current product level commitments (see Projected Impacts to Facilities section). The forest area available after the

withdrawal of any additional components cannot supply the committed volumes beyond the first 10 year term (2005-2015).

The proposed components include 10,368 hectares of planned harvest area, which is 15% of the total harvest area, in the 2005-2010 FMP. There are at least 10,052 hectares that have had silvicultural investment made in the last 10-20 years and 143 kilometres of primary and secondary roads in the components. There has been 44,000 ha (1975-2005) of harvest within these zones.

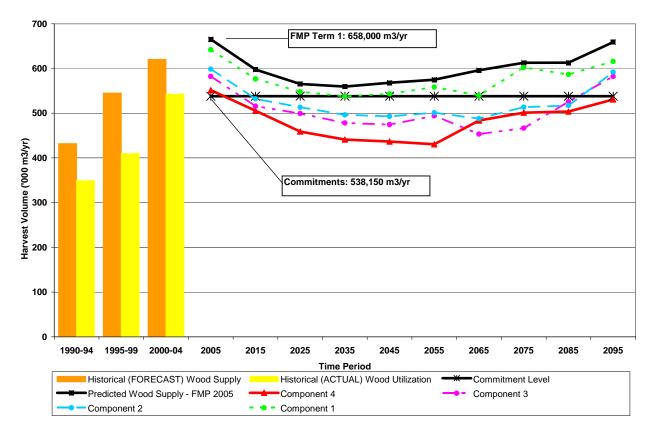


Figure 1 Algonquin Park Forest wood supply projections (available harvest volume) and historical utilization.

Historically, the available harvest area of Algonquin Park has not been fully utilized. Thirty-three percent of the available harvest area in the 2000-2005 FMP was not harvested (some of this area was reported as bypass). This level of utilization and recent increased harvest yields (compared to the yields modelled) would appear to support the withdrawal of area from the Recreation/Utilization Zone without impacts to the forest industry. However, this analysis indicates that there will be impacts. These impacts arise due to product-based commitment volumes, the spatial distribution of timber values and market conditions (see Historical Utilization).

Anticipated Impacts to Facilities

The Algonquin Forest Authority (AFA) examined the current FMP harvest areas and the components, to determine the short term impacts to facilities that rely on wood from Algonquin Park. Their approach included efforts to mitigate supply with alternate sources of the same species and product from Algonquin Park and within economic hauling distances.

The most significant impacts are expected on McRae Lumber (Whitney) and Commonwealth Plywood (Pembroke). The volume deficit for these two mills (based on the total volume committed) is expected to be 9% to 21%. Murray Brothers will also be impacted by the proposal and have a projected volume deficit of 10% of current hardwood sawlog commitment levels. The reductions in tolerant hardwood for these mills cannot be mitigated from other areas of Algonquin Park because alternative supplies are not within economical hauling distance. Total committed sawlog volumes in Algonquin Park are being fully utilized. McRae Lumber, Commonwealth and Murray Brothers obtain 76%, 54% and 48% of their supply from Algonquin Park. Recent economic conditions throughout Ontario's forest industry have been strained by forces such as a high Canadian dollar, energy prices, transport and labour costs, and export tariffs to the US. The added pressures of supply reductions may result in shut-downs and/or layoffs at these mills.

Introduction

Wood supply is the volume of wood, by species and product, available from a management unit, for processing by the forest industry. Wood supply is determined at the local level through the forest management planning process and is an outcome of planning for a broad set of economic, social and environmental objectives. This report documents the anticipated impacts of the Ontario Parks Board proposal on the Algonquin Park wood supply.

The Ontario Parks Board has proposed 4 component areas to be rezoned from the Recreation/Utilization Zone of Algonquin Park and added to the Wilderness, Natural Environment, or Nature Reserve Zones (Figure 2). The component areas are numbered according to the Parks Board's priorities for protection (1 being the highest). Table 1 summarizes the forest areas in each component and the cumulative areas used in this wood supply impact analysis. The component areas are considered in a cumulative fashion (e.g., component 3 impacts are a result of withdrawing the component 1, 2 and 3 areas).

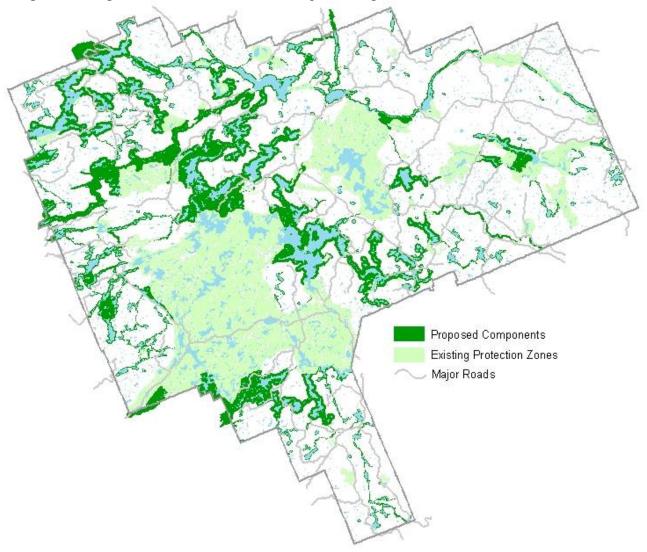


Figure 2 Ontario Parks Board proposed component areas.

Management Context

Forest Industry and Algonquin Park Forest

Eleven companies, that own 14 facilities, are 'designated corporations' under the Algonquin Park Forestry Agreement and they are the primary beneficiaries of the wood harvested from Algonquin Park Forest (APF). There are another five to ten mills that have traditionally received open market wood from the Algonquin Park Forest.

There are over 420 people employed in Algonquin woodland forestry operations. Approximately 2,400 people (revised November 2005) are employed in the mills that typically rely on Algonquin Park for at least a portion of their wood supply (source 2005 FMP, AFA survey).

The following Crown commitments are in place for the Algonquin Park Forest:

- five supply agreements;
- one conditional commitment made by the Minister following a Request for Proposal that will result in an additional supply agreement;
- a Minister's long-term commitment; and
- 5-year Minister's commitments for eight facilities based on the wood supply available in the current forest management plan and historical commitments levels.

Facility Volume % Reliance on Hardwood/ Commitment Algonquin Wood¹ Softwood (m3/yr)Carson Lake 30,600 Softwood 100% Columbia 3,100 4% Hardwood Commonwealth² 52,500 Hardwood/Softwood 54% Dament & Charles 30,000 Softwood 60% 70,900 **Grant Forest Products** 3% Hardwood Herb Shaw & Sons 19,800 55% Softwood 106,700 Hardwood/Softwood McRae Lumber 76% (Whitney) Murray Bros. 80,600 Hardwood/Softwood 48% $(46) 9\%^3$ 14,000 Precut Hardwood Hardwood 58%⁴ Smurfit-Stone 50,500 Hardwood Tembec Mattawa 20,700 31% Hardwood/Softwood Tembec Huntsville 25,750 11% Hardwood $27\%^{2}$ 33,000 Hardwood Tembec Temiskaming

Table 2 Algonquin Park Forest commitments by facility.

Algonquin Forestry Authority sales figures indicate a higher reliance on Algonquin Park.

² Includes both veneer and sawlog commitments.

³ Precut Hardwood has a supply agreement for 46% of their wood supply; however they have only been receiving approximately 9% of their supply from the Park due to availability and cost due to the long haul distances.

⁴ Tembec Temiskaming and Smurfit- Stone are facilities in Quebec that rely on wood supply from the Park. The continued operation of these mills is essential for marketing low-grade hardwood roundwood and mill residue from Eastern Ontario.

The total committed volume of 538,150 m3 was considered in determining wood supply impacts. The volume projection graphs include the commitment volumes for comparison. Table 2 describes the commitment volumes by facility.

Total committed sawlog volumes in Algonquin Park are being fully utilized. The total sawlog and better volume commitment of 228,732 m3/yr in 2000-2005 was exceeded. Volume commitments have increased for the 2005-2010 period, and it is expected that these will once again be fully utilized (subject to market conditions).

Relative proportions of wood flow to communities are illustrated in the Figure 3. Nearly 20% of the harvest volume from Algonquin Park is considered open market wood and sold to other mills, which do not have a committed wood supply from Algonquin Park. This is important in order to be able to utilize and sell the remaining low quality material for pulpwood, fuelwood or less marketable species.

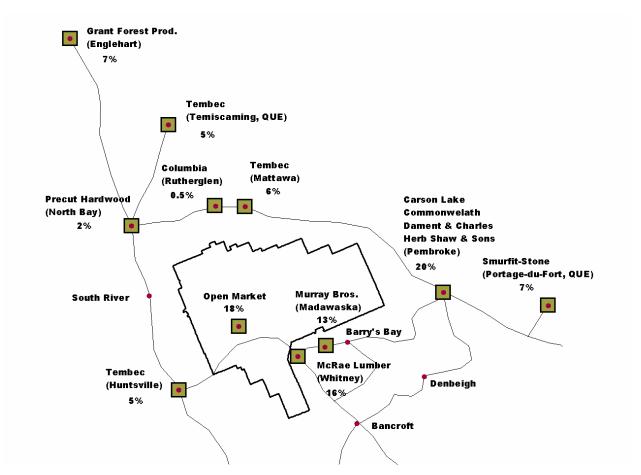


Figure 3 Location of receiving facilities and proportion of planned harvest volumes for Algonquin Park Forest (source: Algonquin Park Forest 2005 Forest Management Plan).

2005-2010 Algonquin Park Forest Management Plan

Planned Areas of Operations

The proposed components include 10,368 hectares or 15% of the planned harvest area in the approved 2005-2010 forest management plan (Figure 4). Table 3 summarizes the area of planned operations by component.

	Cumulative Component Total	Area of Past Operations (1975-2005) (ha)	Area of Planned Operations (2005 – 2010)	Avg Harvest Volume (m3/ha)	Summer Operating Zone (ha)	Primary & Secondary Roads (km)
Component 1		14,364	4,003	42	130	28
	1	14,364	4,003		130	28
Component 2		11,085	2,864	56	1,046	49
	1+2	<i>25,449</i>	6,867		1,176	77
Component 3		3,713	820	51	1,097	32
	1+2+3	29,162	7,687		2,273	109
Component 4		14,847	2,681	48	1,148	34
	1+2+3+4	44.009	10.368		3.421	143

Table 3 Summary of operational factors by component.

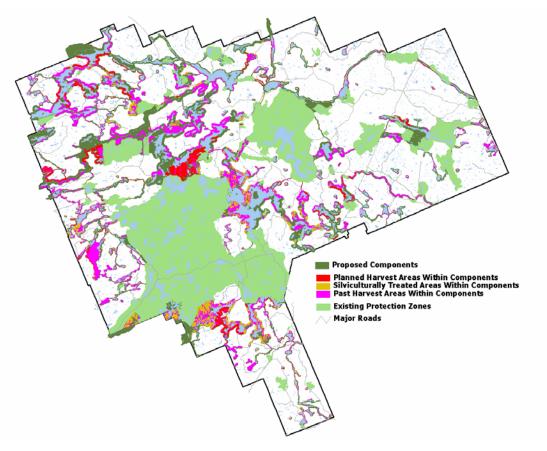


Figure 4 2005-2010 Planned harvest areas and past treated areas within proposed components.

Approximately 175 hectares have been harvested, since the implementation of the current plan in April 2005, that fall within Component 1 (Central and Louisa Lakes). Annual depletion summaries have not been completed yet for the 2005-2006 fiscal year, so areas within the other components have not been determined.

Historical Utilization

Historically, the available harvest area of Algonquin Park has not been fully utilized. Thirty-three percent of the available harvest area in the 2000-2005 FMP was not harvested (some was reported as bypass). This level of utilization and recent increased harvest yields (compared to the yields modelled) would appear to support the withdrawal of area from the Recreation/Utilization Zone without impacts to the forest industry. However, there will be impacts because of the product-based commitment volumes, the spatial distribution of timber values and market conditions.

Commitment Volumes

The Crown commitments represent volumes, specified by species and product type, that will be made available to individual mills. These volumes must be available within an economically viable haul distance (i.e. traditional operating area) in order to supply these commitments at a competitive cost. Shortfalls of product volumes in one part of the park cannot always be mitigated from another part of the park.

In Algonquin Park the sawlog volumes are totally committed. The Components include significant areas that have been managed in the past, as well as areas scheduled for management. These areas are forecast to provide significant volumes of the higher quality products. Removing the components will reduce the volume of lower quality material, but it will also remove the high quality material that is fully committed.

Distribution of Timber Values

Every hectare of the forest is different and has different timber, wildlife and ecological values. The timber values that are being examined in the wood supply analysis are based on the product and species commitment volumes. The problem with selecting areas for withdrawals is that the timber values do not occur in discrete areas. For example, in a given hectare of the tolerant hardwood selection forest unit, there are maple, beech and yellow birch sawlogs and pulpwood. The pulpwood impacts of withdrawing this hectare of forest can be mitigated because of an abundance of supply. However, the sawlog impacts cannot, because the sawlog supply is fully committed. This issue is exacerbated where the components include areas of past management that have been improved and are forecast to yield greater proportions of higher quality products in return cuts.

Market Conditions

Market conditions for lower quality material were particularly strong during the implementation of the previous FMP (2000-2005). These market conditions have allowed operations to occur in

stands that are only marginally economical under normal market conditions, due to their high proportion of low quality material. These operations resulted in higher than forecast yields because of the volumes of pulpwood removed. In normal market conditions, harvesting typically focuses on better quality stands that more closely approximate the average stand conditions forecast in the modelling. The harvest of these stands in poor market conditions results in lower yields because there are difficulties in marketing the lower quality material.

Planned and Actual Yields

The Year 10 Report submitted by the AFA compares planned operations identified in the 2000-2020 FMP to actual operations undertaken during the five-year (i.e. 2005-2010) operating term of the plan. The average yield for the total planned harvest area was 51 m³ per hectare. The actual yield from the harvested area was 66m³/ha, 29% more than the planned yield. There are several factors that contribute to the disparity between planned and actual yield per hectare, such as:

- Inclusion of undersize volume in the annual report volumes;
- Salvage of unplanned blowdown area;
- Conservative forecast volume "net down" calculations;
- Stand description inaccuracies in the planning inventory;
- Changes in planned to actual silviculture system based on actual site conditions;
- AFA strategy to capitalize on strong pulp markets and utilize more lower quality, higher yielding forest units;
- Harvest of higher stocked stands than the average condition represented in modelling.

Based on historic data, the average yield achieved from 1990 to 2003 is 51 m₃/ha, which is consistent with the forecast in the current and past FMPs.

Wood Supply Analysis of Implementing Proposed Components

The wood supply projected impacts of the proposed rezoning was determined using the Strategic Forest Management Model (SFMM), information used in the preparation of the 2005 Algonquin Park Forest management plan, commitment volumes and the operational experience of Algonquin Forest Authority (AFA) staff. Impacts will be discussed relative to the approved FMP volume projections and the Crown commitment volumes.

The SFMM analysis used the selected management alternative from the 2005-2025 FMP. The initial area available for forest management was reduced to account for the component areas. The impact analysis used the same inputs and assumptions (growth and yield, silvicultural options and management objectives), as developed and supported by the AFA, MNR (Ontario Parks and Field Services Division) and Local Citizens Committee for the approved FMP. The approved model inputs represent the best science and professional knowledge of the day.

By maintaining the foundation of base assumptions in the model, the impact of the proposed protected zones on harvest volume and the future forest condition of the Park is transparent and easily comparable to the approved forest management plan projections.

Available Landbase

In the strategic wood supply analysis in the 2005-2025 Forest Management Plan, the available forest area for forest management operations was 474,000 ha (before application of accumulating reserves in SFMM). The available landbase is reduced by 5% (Component 1) to 19% (Component 4) by the proposed components (Table 1, Figure 6).

Table 4 summarizes the reduction in the available forest area by forest type. Most forest types are reduced by similar proportions in each of the components, except for Hemlock Selection. The Hemlock Selection unit is small and occurs most frequently near water, resulting in larger percentage impacts to this forest unit.

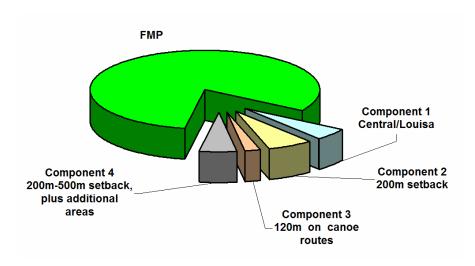


Figure 5 Available forest area (from 2005 FMP) contained in Parks Board components

Table 4 Available forest area changes compared to the 2005 FMP available forest area.

Forest Unit	2005 FMP	Component 1 Central/ Louisa	Component 2	Component 3 120m Canoe Routes/Brook Trout	Component 4 200m – 500m Setback
1 0.000 0	2003 FIVIP	Louisa	ZUUIII SELDACK	Hout	Selback
Intolerant Hardwood	36,390	-3%	-11%	-13%	-18%
Jack Pine	2,488	0%	-10%	-10%	-14%
Red Pine	5,218	0%	-10%	-11%	-14%
Black Spruce	6,475	-6%	-12%	-14%	-21%
Hardwood,					
Uniform					
Shelterwood	51,567	-5%	-12%	-16%	-21%
Mixed Wood, Uniform					
Shelterwood	44,945	-4%	-9%	-11%	-16%
Lowland Conifer, Uniform					
Shelterwood	5,616	-4%	-11%	-13%	-20%
Red Oak, Uniform	10,218	0%	0%	-2%	-6%

		Component 1 Central/	Component 2	Component 3 120m Canoe Routes/Brook	Component 4 200m – 500m
Forest Unit	2005 FMP	Louisa	200m Setback	Trout	Setback
Shelterwood					_
White Pine,					
Uniform					
Shelterwood	73,702	-1%	-7%	-8%	-11%
Spruce/Fir,					_
Uniform					
Shelterwood	34,459	-6%	-15%	-18%	-25%
Hemlock,					
Selection	30,279	-12%	-22%	-26%	-33%
Tolerant					
Hardwood,					
Selection	172,610	-7%	-12%	-14%	-20%
TOTAL	473,967	-5%	-11%	-14%	-19%

Harvest Volume

The available harvest volume is projected to be reduced by a range of 3% to 24% over time (Figure 6). The forest area remaining after the withdrawal of the component 1 area is able to supply the total volume committed for the short and long term, but not current product level commitments (see Projected Impacts to Facilities section). The forest area available after the withdrawal of any additional components cannot supply the committed volume of 538,000m3 beyond the first 10 year term (2005-2015).

Figure 6 shows that the historical wood utilization has increased consistently over the past 15 years. The historic wood utilization values are not directly comparable to the forecast available harvest volume because the utilization numbers are a result of a different measurement system (i.e. the scaling and billing system) and include additional volumes that are not included in the FMP forecasts (e.g. undersized material, which is considered unmerchantable under the Scaling Manual and CFSA). An important factor resulting in the increased utilization is improved market conditions (e.g. markets for hardwood, birch and poplar pulp). While markets and utilization of low-quality fibre have improved, there is still a deficit of sawlog and veneer materials within the Algonquin Park Forest.

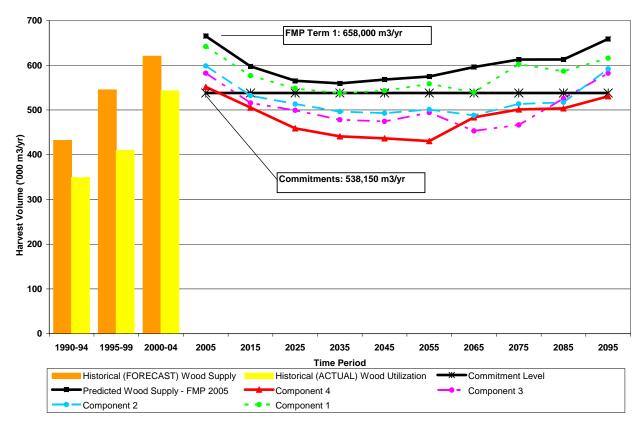


Figure 6 Algonquin Park Forest Wood Supply Projections and Historical Utilization.

Mills that rely on wood fibre from Algonquin Park require a steady flow of white and red pine sawlogs as well as sawlog and veneer quality tolerant hardwood. These two species groups are projected to experience an immediate reduction of: 2% - 19% in red and white pine volume (PWR); and 5% - 15% in tolerant hardwoods (TOL) (Figures 7 and 8). The reduction increases from the short to the long-term (100yrs).

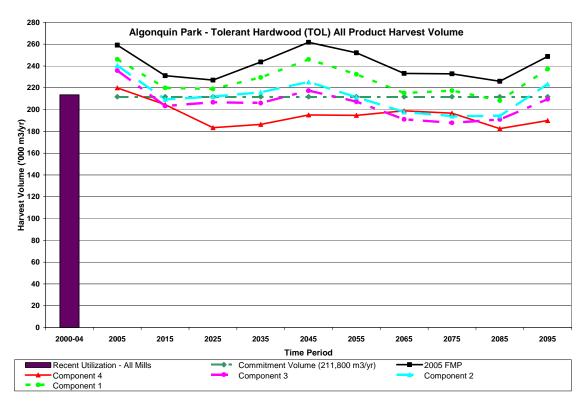


Figure 7 Tolerant hardwood, all products, projected harvest volumes.

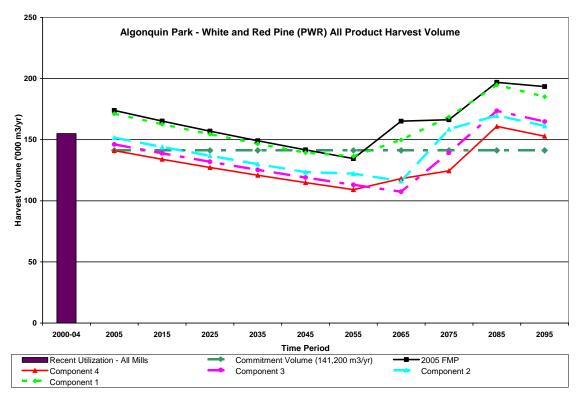


Figure 8 White/Red pine, all products, projected harvest volumes.

The Provincial Wood Supply Strategy recognizes the deficit of quality veneer and sawlog material in Southern Region. Ministerial commitments for tolerant hardwood sawlogs and veneer for the 2005-2010 are 91,100 m³ annually. Forecast volumes shown in Table 5 are the projected reductions to the two main species group-product combinations (i.e. sawlog and veneer PWR and TOL). The volume forecasts are well below the 2005-2010 committed volumes.

Component 3 120m Canoe Component 4 **Component 1** Component 2 Routes/Brook 200m - 500m Central/Louisa 200m Setback **Trout** Setback Tolerant Hardwood Sawlog & Better Short-Term -5% -7% -9% -15% Medium-Term -5% -11% -14% -23% -14% -17% Long-term -7% -19% Red/White Pine Sawlog & Better Short-Term -2% -13% -16% -19% Medium-Term -1% -12% -15% -18% Long-term -2% -14% -17% -21%

Table 5 Projected sawlog & better volume reductions.

As shown in Table 5, Component 1 has very little impact on the red/white pine supply, because the area is concentrated in the hardwood forest units. Component 2 is projected to just meet the committed red/white pine levels in Term 2 (2015-2025). Component 3 and 4 cannot meet commitments after 10 years for red/white pine.

Access Considerations

The Parks Board has indicated that existing access will be maintained on a case-by-case basis and zoning options will be considered, so that additional areas (outside the components) do not become isolated or inaccessible. There has also been significant work between Ontario Parks and AFA to update the current road strategy for Algonquin Park. This strategy is intended to provide a comprehensive and consistent approach to managing roads in Algonquin Park. Until the details governing access are resolved it is not possible to assess and report on economic impacts (e.g., additional road construction and haul costs, viability of additional haul distance) and environmental considerations (e.g., road abandonment of existing roads, additional roads and water crossings and potential new points of entry into the Park to access isolated areas).

There are 143 kilometres of primary and secondary roads in the components (Table 3).

Impact on Summer Operating Area

Timing restrictions on forestry operations within 1.6 kilometres of canoe routes in Algonquin Park reduce the area available for summer operations to 161,650 hectares (34% of the available productive forest area). Maintaining summer operating area on the management unit is critical to maintaining a viable contractor base with options for harvesting in all seasons. The proposed components would reduce the summer operating area by 3421 ha (Table 3).

Silviculture

The proposed zones include at least 10,052 hectares of area that have received some form of silvicultural treatment in the past 20 years.

Based on the planned harvest area in the first 5 year term of the approved in the 2005-2025 FMP, there are another 10,368 hectares scheduled to receive renewal and/or tending treatments in the next 5 years (Table 3).

Most of the treated forest stands within the proposed protection zones are within the Hardwood Selection forest unit. Stand improvement operations undertaken in the Hardwood Selection forest unit target the removal of low-quality trees within the forest stand. The intent is to provide increased benefits in future harvests by increasing the overall health, vigour and timber quality of unharvested trees. Approximately 7600 hectares of hardwood stand improvement has been completed within the proposed zones. Removing the previously treated area from the managed forest negates the realization of those future economic benefits.

Investment

Harvest and tending renewal efforts often require an investment in the treated area to successfully regenerate the area with desirable species or to improve the quality of the residual trees on site. Moderate to high levels of investment are associated with the selection and shelterwood systems carried out Algonquin Park, and the level of investment for artificial regeneration of clearcut stands is very high. Using average renewal costs documented in the 2005 FMP, investments in the past 15 years treatments have exceeded \$1,000,000. Investments scheduled in the 2005-2010 allocations included in the components will surpass \$1,000,000.

Socio-Economic Impacts

Community Economic Importance

Forestry contributes more jobs and higher incomes than average in communities surrounding Algonquin Park.

This section discusses the economic importance of forestry in the Census Division areas, or counties surrounding Algonquin Park. Smaller towns and villages within these areas may have a much higher reliance on forestry, because this is where many of the employees live and work. Data is based on 2001 Census data from Statistics Canada.

	_		•	•	•		
Employment	Muskoka	Nipissing	Haliburton	Renfrew	Parry Sound	TOTAL	Ontario
Logging	75	185	85	415	90	850	6,415
Sawmills	175	370	50	745	130	1,470	9,380
Veneer	240	260	50	280	250	1,080	6,340
Other Wood	135	50	35	340	80	640	15,005
Pulp	185	425		50	25	685	15,875
Total	810	1,290	220	1,830	575	4,725	53,015
Labour Force	26,330	39,625	6,415	46,885	19,045	138,300	6,086,815
Forestry Importance	3.1%	3.3%	3.4%	3.9%	3.0%	3.4%	0.9%

Table 6 Significance of Forestry Labour Force by County

The total level of forestry and wood industry employment in the area surrounding Algonquin Park is 4,725 for an overall importance to the area of 3.4%, compared to 0.9% for the entire province. When traditional forest work like logging and sawmill employment is isolated from the paper and value-added wood jobs, the concentration of harvesting and mill work is almost 50% of the total employment of 4,725 – high even by northern Ontario standards (43%).

Table 7 Comparison of Average Income versus Forestry Income by County

Income	Muskoka	Nipissing	Haliburton	Renfrew	Parry Sound	TOTAL
Average						
Forestry Income	\$ 38,194	\$ 32,165	\$ 17,062	\$ 31,673	\$ 33,749	\$ 30,568
Average Income	\$ 26,382	\$ 26,184	\$ 22,418	\$ 26,286	\$ 24,323	\$ 25,119

The chart above compares annual incomes across the same forest industry employment categories. With the exception of Haliburton, all incomes derived from forest or wood activity are higher that the average income for that area – again showing the relative importance of forest related activity to neighbouring communities to Algonquin Park. In addition, the average of the four highest forestry incomes is \$33,945 – over \$1,000 higher than the Ontario average salary of \$32,865.

Projected Impacts to Facilities

AFA conducted an analysis of the current FMP approved harvest areas to determine the short term impacts to the facilities that rely on the wood supply from Algonquin Park. Their approach included efforts to mitigate supply with alternate sources of the same species and product that would be within an economic haul distance from affected mills. These immediate wood supply impacts are identified below.

In addition to these short-term impacts, Murray Brothers would experience a reduction of approximately 10% of their hardwood sawlog commitment level with the introduction of all four components.

Component 1

Component 1 is concentrated in the Central and Louisa Lakes areas and has the most significant impact on Commonwealth Plywood and McRae Lumber. The reductions in tolerant hardwood, hemlock and spruce-fir for these two mills cannot be mitigated because additional supplies are not available within economic distances.

Declines in white and red pine would be shared equally amongst the consuming mills as the pine historically has been hauled beyond traditional operating areas. However, the tolerant hardwood is typically hauled over shorter distances and therefore the impacts of removing the concentrated areas of tolerant hardwood have a more significant effect on particular facilities and the reductions cannot be rationalized amongst the other consuming mills as with the red/white pine.

The Commonwealth sawmill and veneer mill in Pembroke relies on the Algonquin Park wood supply for 54% of their mill furnish. A reduction of 20% of the Park supply will have significant negative impacts for this facility.

McRae Lumber is in Nipissing County and Commonwealth Plywood is in Renfrew County. As noted in the section above on commitment holders these two mills are highly dependent on their wood supply from Algonquin Park.

	Annual	Deficit (cumulative % reduction of commitment levels)					
	Commitment	Component	Component	Component	Component		
	Level	1	1 & 2	1, 2 & 3	1, 2, 3 & 4		
Commonwealth							
All Species	$48,000 \text{ m}^3$	20%	20%	21%	21%		
Tolerant Hwd	22,300	17%	18%	18%	19%		
Hemlock	2,700	73%	73%	73%	73%		
Spruce-fir	4,500	20%	23%	24%	25%		
McRae							
Lumber							
All Species	$106,700 \text{ m}^3$	9%	10%	12%	12%		
Tolerant Hwd	69,300	11%	12%	13%	13%		
Hemlock	7,300	15%	17%	19%	19%		
Spruce-fir	9,400	10%	10%	13%	13%		

Table 8 Immediate Wood Supply Impacts

McRae's Whitney mill traditionally operates 250 days a year, employs 68 people and was established in 1918. McRae relies on the Algonquin Park wood supply for 76% of their mill furnish. There is a high probability that this level of reduction will result in down time and/or layoffs at McRae Lumber.

Component 2

The white/red pine supply could just meet the commitment levels in Term 2 (2015-2025) with component 2 areas withdrawn. After Term 2 commitment levels cannot be met again until Term 8 (2075-2085). The white/red pine that has been available on the open market (i.e. not committed) will be affected first and further reductions would be shared amongst commitment holders. Even though some volume has not been committed, mills such as Tembec-Mattawa rely on white pine open market volume which is recognized in their Ministry Recognized Operating Level, although not part of their supply agreement.

The mid-term wood supply impacts of Component 2 are more significant than in the short term. Although Figure 7 illustrates that the supply of tolerant hardwood is sufficient to meet the current commitment levels for the first 6 terms, the supply will be unable to sustain the current level of sawlog production and impacts will be more significant for McRae and Commonwealth.

Component 2 also has the biggest impact on the supply of poplar and white birch. The current FMP supply is unable to meet existing wood supply commitments, therefore Component 2 would further reduce the wood supply available to Grant Forest Products, Precut Hardwood and Smurfit-Stone.

Component 3

Component 3 results in a reduced supply of white/red pine that would be unable to achieve current commitment levels beginning in term 2 (2015-2025). Mills are dependent on this supply as illustrated by the current consumption in Figure 8.

Component 4

The addition of Component 4 exacerbates the dip in volumes in the mid-term for all species groups except red/white pine,

Opportunities to Offset Wood Supply Reduction

Challenges of wood quality, market conditions and shareholder agreements that exist in surrounding SFLs mean there are very limited opportunities to mitigate a wood supply reduction as a result of implementing the proposed rezoning with underutilized harvest area from surrounding SFLs.

The tolerant hardwood forest units represent over 50% of the area in the proposed components with the majority in Components 1 and 4. The majority of the immediate impact to the industry that cannot be mitigated is tolerant hardwood. The Provincial Wood Supply Strategy explains that the current hardwood supply in Southern Region is well above the demand, but notes that the "surplus is confined to low-grade hardwoods, and that veneer and sawlog supply is in a deficit situation." This sawlog deficit makes it unrealistic to expect that mitigation could occur from adjacent management units in the short term. In the medium to long term, supplies of veneer and sawlogs are expected to improve as the results of practices, such as tree-marking, are realized. The benefits of these increases would accrue to the shareholders (some of which are mills with commitments in Algonquin) of those SFLs that have invested in these forest practices.

Utilization conditions in adjacent management units are:

- Bancroft-Minden: Utilization is increasing and 90% utilization is anticipated for the 2001-06 FMP. A portion of the harvest is retained for open market sales.
- French-Severn: Utilization of the harvest area is 52%. Selection harvest is still focused on 1st or 2nd removals, resulting in low volume recovery and high proportions of lower quality material. This makes much of the harvesting extremely marginal and sensitive to market conditions. The management unit has difficulty marketing pulp quality material because of distances to markets.
- Mazinaw-Lanark: Utilization of the harvest area is 81%. Harvests are yielding lower
 volumes than forecast. The proportion of sawlog quality material is very low. The
 increase in haul distances (compared to Algonquin Park wood), make volumes from
 Mazinaw-Lanark uneconomical for some Algonquin mills. A portion of the harvest is
 retained for open market sales.
- Ottawa Valley: Utilization of the harvest area is 92%. A portion of the harvest is retained for open market sales.

DRAFT version 1.1

Report and analysis prepared by:

Glen Watt Regional Planning Analyst Southern Region Planning Unit (705) 755-3259

Norm Cottam , R.P.F Resource Analyst Southern Region Planning Unit (705) 755-3229

Peter Henry, R.P.F. Supervisor Forest Analysis & Modelling Unit (705)945-6572 Ian Manson, M.A.E.S. Forest Industry Liaison Officer, Southern Region Forest Business and Economics Section (705) 755-3214

Deb MacEwen, R.P.F Forest Industry Liaison Officer, Southern Region Wood Allocation & Measurement Section (705) 755-3232

Gord Cumming, R.P.F. Chief Forester Algonquin Forestry Authority (705)789-9647