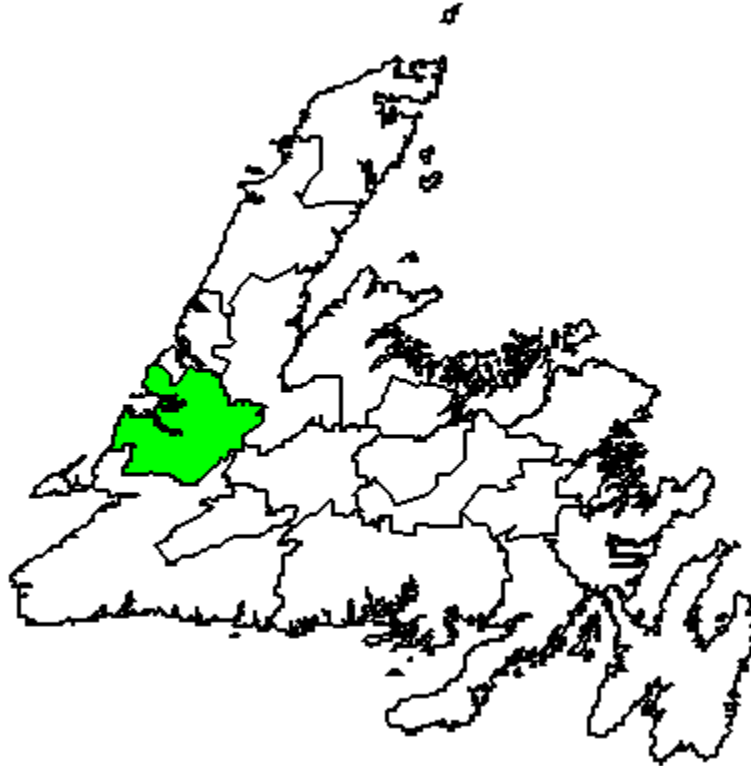


**FIVE YEAR OPERATING PLAN  
FOR  
CROWN LAND IN FOREST MANAGEMENT DISTRICT 15**

**[APRIL 1, 2003 - MARCH 31, 2008]**



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\_\_\_\_\_ **Minister of Forest Resources  
and Agrifoods**

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## 1.0 INTRODUCTION

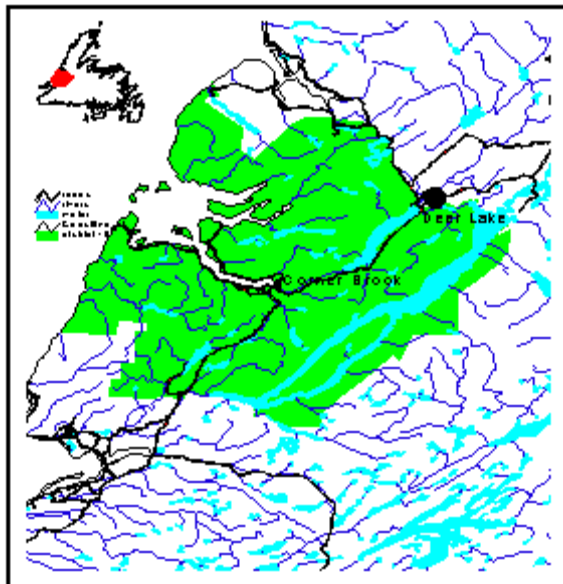
### About the Plan

This Five Year Operating Plan has been developed for unalienated Crown Lands in Forest Management District 15 (hereinafter referred to as the District) for the period April 1, 2003 to March 31, 2008. It provides details of activities that are designed to ensure that the forest resources are managed in a sustainable manner using the Adaptive Ecosystem Management Planning Process (illustrated in [Appendix I](#)). Activities will include: harvesting, road construction, silviculture, environmental protection, surveys and monitoring. These activities are consistent with the goals and objectives of the recently completed Forest Management Strategy : Forest Management District 15.

The plan was developed through a planning process which involved consultation with government departments, industry, interest groups, and members of the general public. A description of the planning process and minutes of the planning team meetings are available upon request in a document entitled “**Citizen’s Guide to Public Participation in Forest Management**”.

This plan will be submitted to the Department of Environment for registration as a undertaking pursuant to the Environmental Protection Act (2002) . Implementation is scheduled for April 1, 2003.

### District Profile



The District is located on the west coast of the island portion of Newfoundland and Labrador and is centered around the Bay of Islands. It is bounded by Gros Morne National Park in the northwest, Deer Lake in the northeast, the Gulf of St. Lawrence in the west, Gallants in the southwest and extends east to just beyond Grand Lake’s southern shore. A map of the district boundary is shown in Figure 1.

Historically, use of the forest resource in the district centered around fuel wood, building materials and supplies for the fishing industry. The first major sawmill was constructed near Corner Brook Stream in 1863 which at peak production employed 45 people. In the 1900's forestry became the employment mainstay in the region.

Figure 1. Outline of Management District 15

From 1921 to 1947 sawmills were established in Bonne Bay which produced approximately 6

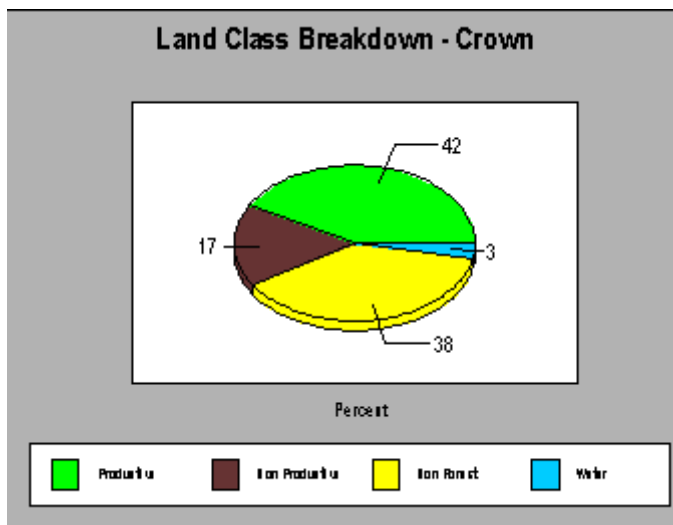
million fbm of lumber per annum . In 1923 the construction of a pulp and paper mill in Corner Brook and a hydro generation station at Deer Lake commenced; both developments were completed in 1925. The mill was initially owned by the Newfoundland Power and Paper Company limited which operated it until 1928. It was then taken over by the Canadian International Paper Company before giving way to Bowaters in 1938. Bowaters operated the mill until 1985 when it was taken over by Kruger Inc. under the name Corner Brook Pulp and Paper Ltd who operate the mill today.

Although the pulp and paper mill at Corner Brook still dominates the forest sector in Western Newfoundland, on Crown Land in District 15 fuelwood cutting and sawlog production are the primary uses. In fact, local sawmills still produce in excess of 2 million fbm of lumber annually. In recent years the recognition and consideration of other values has shifted management from purely timber to a more holistic, ecosystem based approach.

### Forest Landbase

The District covers a total area of 562 533 ha. Of this, 42 503 ha, mainly in the northwest corner, have not been mapped due to inaccessibility and low productive capacity. The remaining 520,028 ha have been inventoried by the Forest Service, which involves stratifying landscape into productive forest (forest land capable of producing > 35 m<sup>3</sup>/ha at rotation), non productive (scrub), non forested (bog, barren, cleared land etc.), and fresh water.

There are two major landholders in the District, Corner Brook Pulp and Paper Ltd. (CBPPL) and the Crown (Figure 2). Of the inventoried landbase CBPPL has timber rights and management responsibility for 372,054 ha (72 percent of the inventoried area). These timber rights are held in



58 licence agreements that are due to expire in 2037. The Crown has control of 100,311 ha or 20 percent of the inventoried area scattered in 16 blocks throughout the District. This plan will focus on the management activities directly associated with these blocks for the next five year period. Figure 3 presents the landbase breakout for these Crown land blocks consisting of 42 percent productive forest, 17 percent nonproductive, 38 percent non-forested and three percent water.

Figure 3. Breakdown of Crown Land

by Land Class



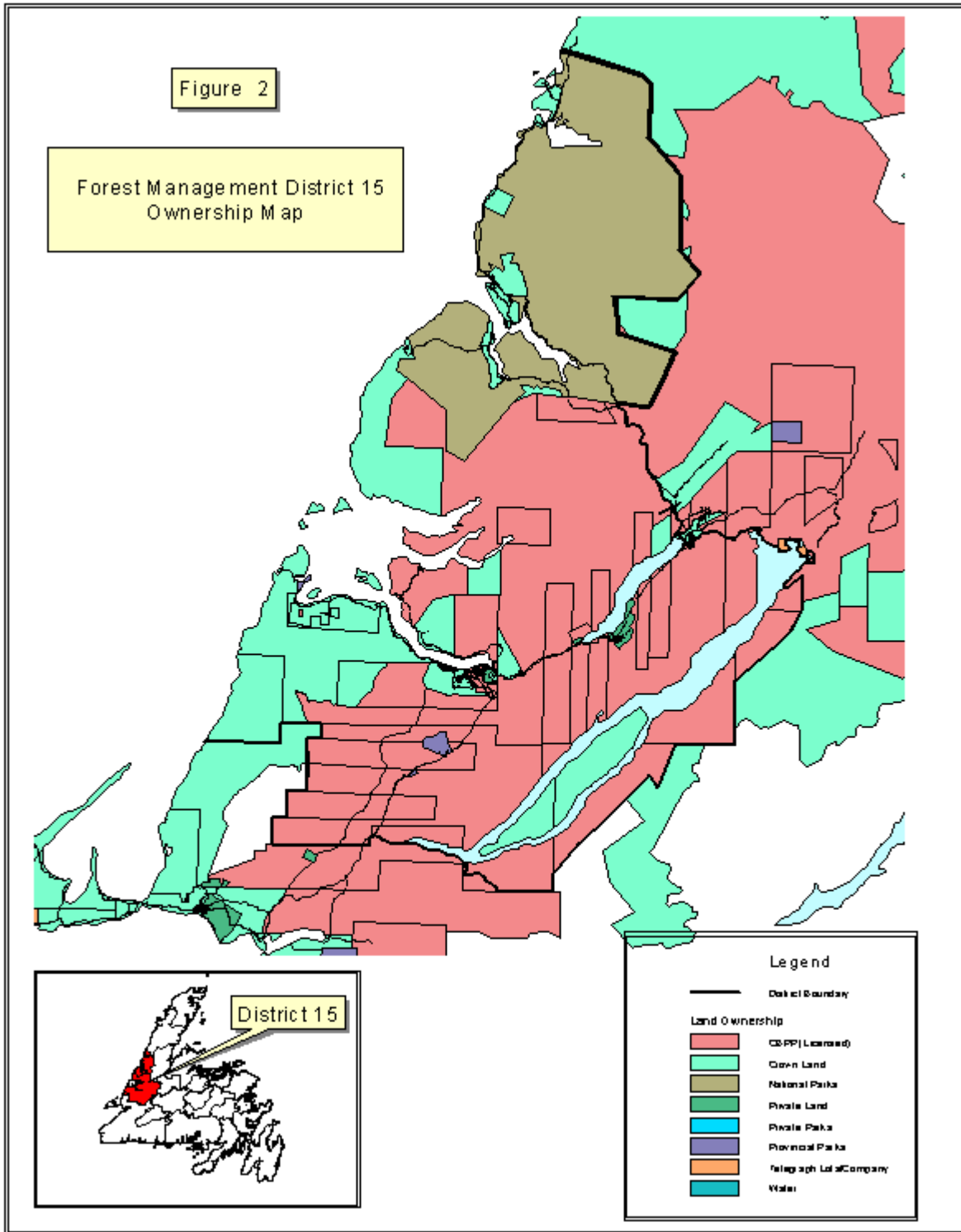


Figure 2. Forest Management 15 Ownership Map

## Description of Crown Blocks

The Crown blocks in Management District 15 include;

- eight unalienated Crown blocks in the Bay of Islands; Lark Harbour, Benoit's Cove, Corner Brook Ring Road, Wild Cove, Gillams, Old Man's Pond, Goose Arm Road, and Glover Island (illustrated in [Figure 4](#)), and  
  
one unalienated Crown block in Bonne Bay at Adam's Road Trout River ([Figure 5](#)).

<p><b>NOTE:</b> There is no forestry activity proposed for the Glover Island block and therefore it will not be referenced further in this plan.</p>
--

- four CBP&P to Crown exchange blocks located at Mckenzie's Brook, Middle Trout River/Governors Pond, Humber Valley Forest Reserve, and Bonne Bay Big Pond ([Figure 6](#)). The exchange at Middle Trout River/Governors Pond is due to expire in 2007. The other exchanges at Mckenzie's Brook, Humber Valley Forest Reserve, and Bonne Bay Big Pond, have no expiry date specified.

<p><b>NOTE:</b> For the purposes of this plan Mckenzie's Brook and Middle Trout River/Governor's Pond exchanges are combined and referred to as Mckenzie's Brook Crown block.</p>
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- three Gros Morne Park enclaves at Woody Point, Rocky Harbour, and Sally's Cove ([Figure 5](#)). The Crown is responsible for regulating domestic cutting in the enclaves of Gros Morne National Park. These enclaves are areas encompassed by the National Park Boundary yet exempted from the park to provide for the consumptive needs of the local people.

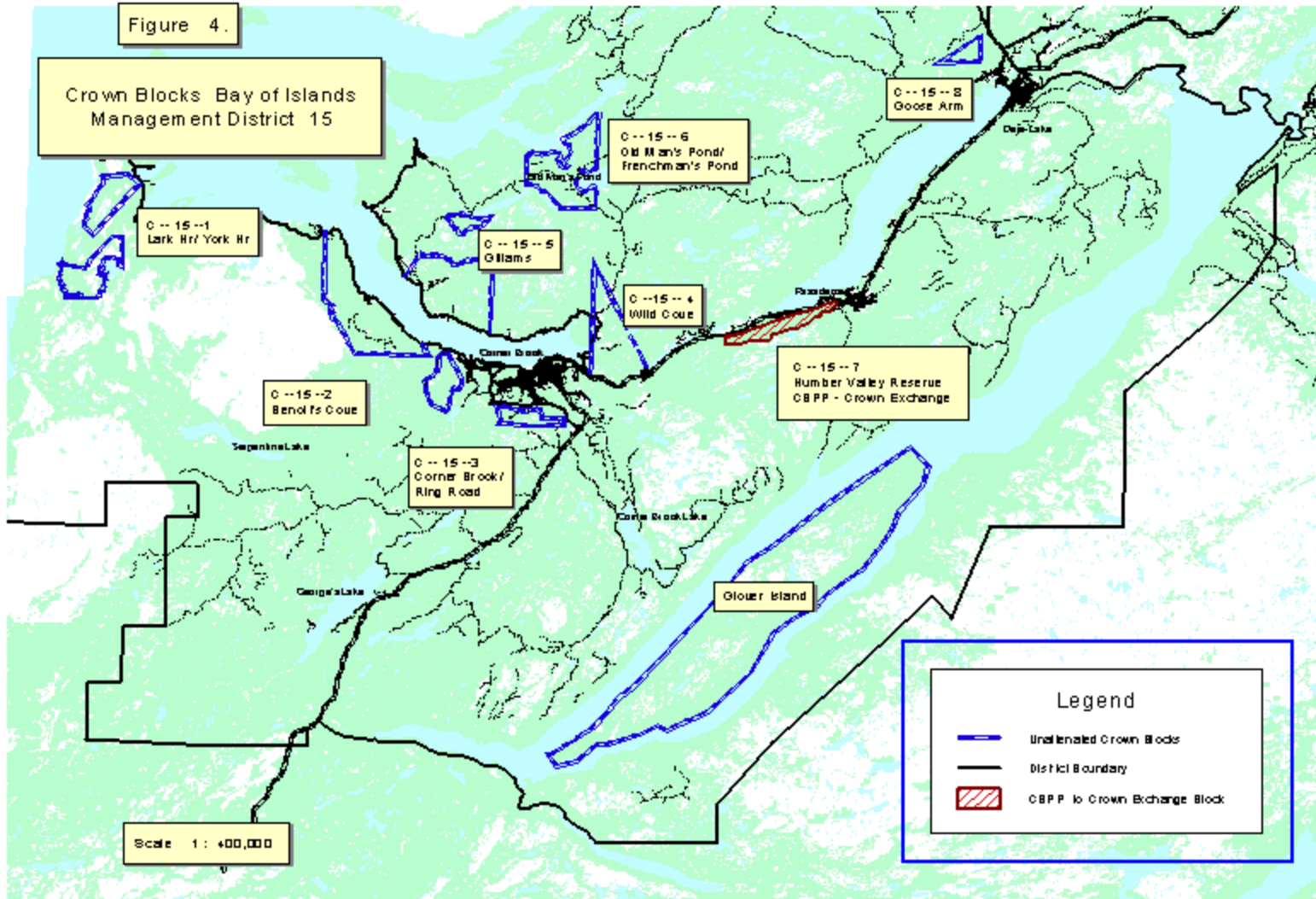


Figure 4. Crown Blocks - Bay of Islands - Management District 15

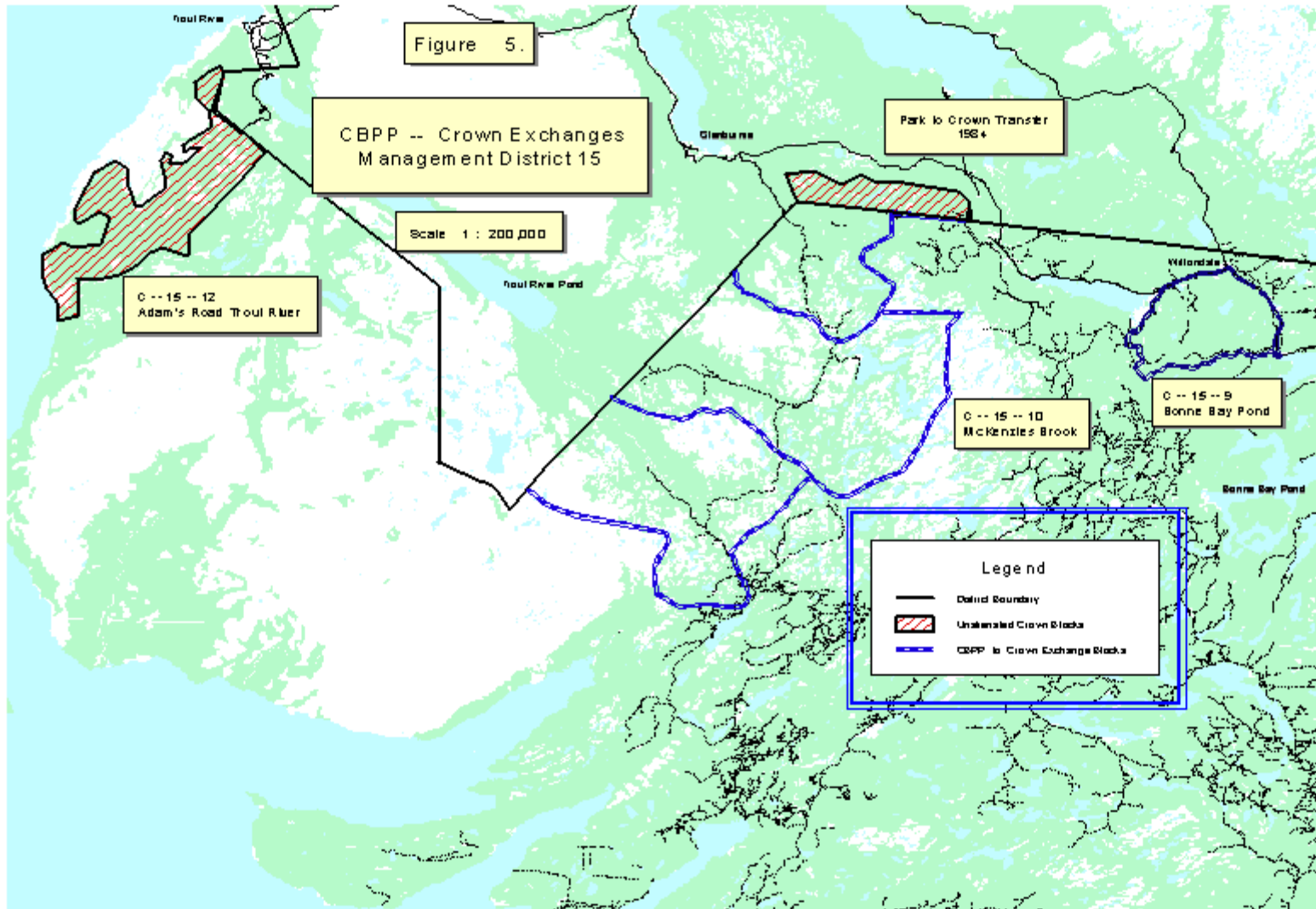


Figure 5. CBPP – Crown Exchanges - Management District 15

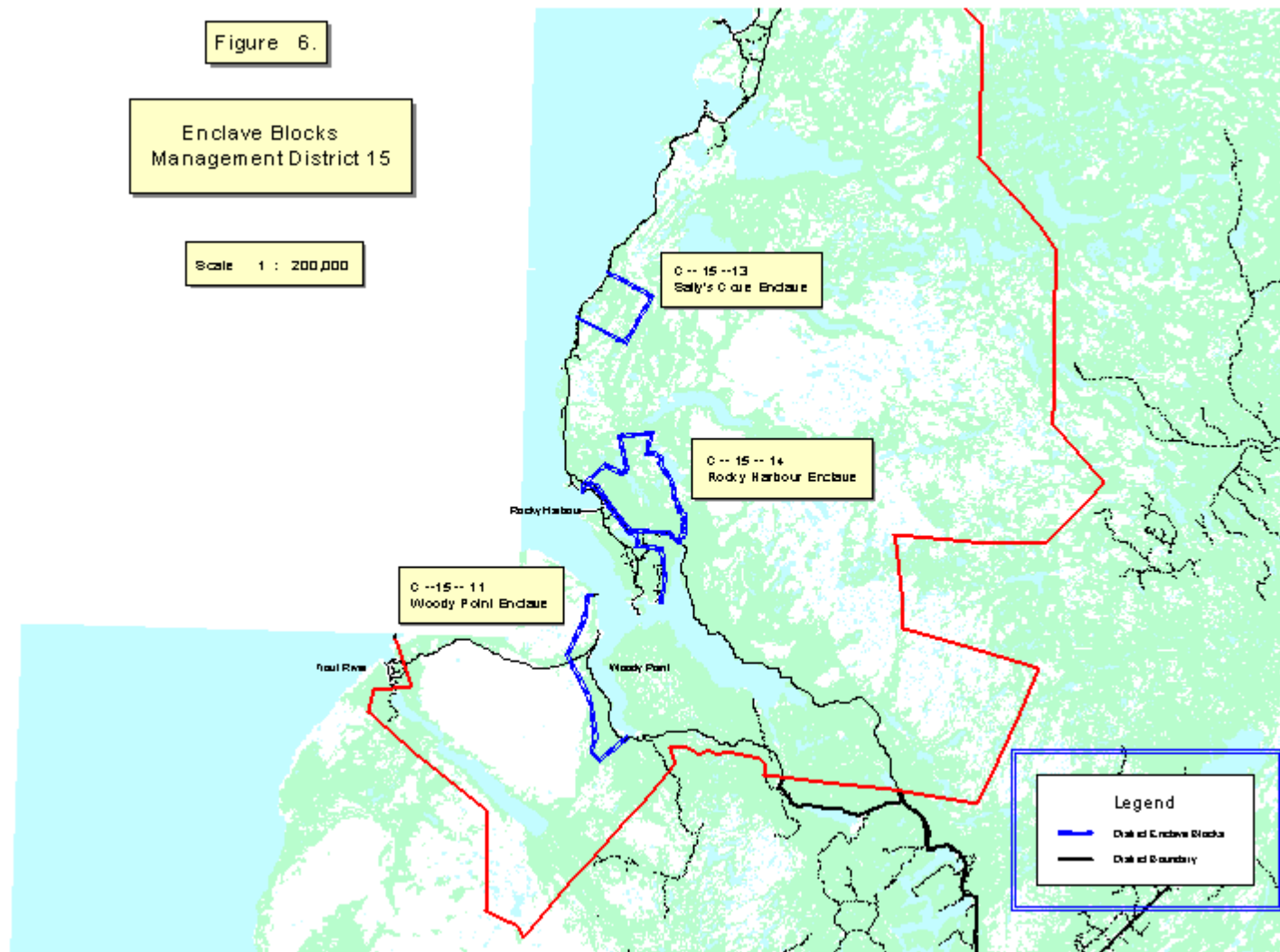


Figure 6. Enclave Blocks – Management District 15

## **2.0 PAST ACTIVITIES**

In the past five years the forestry activities on unalienated Crown Land and the CBPPL to Crown exchanges in District 15 have included both commercial and domestic harvesting, silviculture operations, access road construction and forest protection.

### **2.1 Harvesting**

Both commercial and domestic harvesting in the District was regulated using a permitting system to ensure harvesting occurred within the sustainable limits of the resource. Each permit issued was subject to terms and conditions consistent with the Environmental Protection Guidelines ([Appendix II](#)), developed by the Department in early 1990's to minimize the impacts of forest management activities on the forest environment. These guidelines include requirements such as water body buffers, proper stream crossing techniques, avoidance of sensitive areas, etc. In addition to the environmental guidelines, any special considerations identified by the planning team were attached as conditions. The Forest Service regularly monitored all operations to ensure adherence to these conditions. A formal program is in place to record the finding of these inspections.

The allocated cut for the past five years for both commercial and domestic operations was based on a Crown AAC of 17,250 m<sup>3</sup>/yr and an allocation of CBP&P's AAC for the exchange areas. There were no AACs calculated for the unmapped enclaves in and around Gros Morne National Park.

#### **2.1.1 Domestic Harvesting**

Domestic cutting accounted for the majority of the harvest in the District as most Crown blocks had little or no commercial potential. Many years of traditional subsistence activities have resulted in a broken, fragmented forest, especially adjacent to communities. Where possible, domestic harvesting areas were established within the blocks, in concentrations of old timber, and domestic activities were restricted to these areas. Within the zones, a selective patch harvest was used, which resulted in individual trees or groups of trees being harvested as needed.

The level of activity in each domestic harvesting area is for the most part proportional to the number of households in the area. This has resulted in some blocks being harvested at a faster rate than others and a big range in available timber supplies. To address this concern, in the mid 1990's a Domestic Woodcutting Working Group was established through the Western Newfoundland Model Forest Program to look at options to bring the allocation in line with the supply. The two options explored by the group were; (1) to balance supply and allocation by individual block or (2) balance supply and allocation overall for the Bay of Islands. After much debate the group recommended an overall reduction in the softwood permit allocation to 11 m<sup>3</sup>/yr per household in the Bay of Islands. The group felt this wasn't necessary to regulate by block because all blocks were regulated under a single AAC.

The total domestic harvest for the past five year period was estimated to be 22,176m<sup>3</sup> for the Bay of Islands which equates to little more than 4,400 m<sup>3</sup> per year. On average, this would not fulfill a typical household's annual fuelwood requirement, therefore many individuals had to supplement their fuelwood needs by utilizing hardwoods from Crown and industry cutovers. In Bonne Bay, the permit allocation is significantly higher at 23 m<sup>3</sup> per permit. The actual five year harvest is estimated at 48,369 m<sup>3</sup>. In the past five years the domestic harvest has averaged at nearly 10,000 m<sup>3</sup>/yr. Table 2.1 presents the yearly breakdown of domestic harvest for each Crown block.

Table 2.1 Summary of Domestic Activities for each Crown Block : April 1998 to March 2003

<i>Crown Blocks</i>	<i>Map ID</i>	<i>Number of Permits Issued</i>					<i>Total</i>
		<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>	<i>2002*</i>	
<b><i>Bay of Islands</i></b>							
Lark Harbour/York Harbour	C-15-1	34	54	73	68	70	299
Benoit's Cove	C-15-2	154	140	132	118	120	664
C. Brook Ring Rd (Mt Moriah)	C-15-3	79	101	87	80	80	427
C. Brook Ring Rd (Ring Road)	C-15-3	25	31	19	15	15	105
Wild Cove	C-15-4	15	13	8	5	10	51
Gillams	C-15-5	51	71	64	45	45	276
Old Man's Pond	C-15-6	15	14	10	11	10	60
Humber Valley Reserve	C-15-7	15	19	13	11	10	68
Goose Arm Road	C-15-8	13	16	15	12	10	66
<b>subtotal # of permits:</b>		401	459	421	365	370	2016
<b>**Estimated Volume(m<sup>3</sup> - net):</b>		4,411	5,049	4,631	4,015	4,070	22,176
<b><i>Bonne Bay</i></b>							
Bonne Bay Big Pond	C-15-9	34	29	21	21	20	125
Mckenzie's Brook	C-15-10	84	54	62	60	60	320
Woody Point Enclave	C-15-11	18	23	23	28	25	117
Adam's Road Trout River	C-15-12	47	62	65	61	60	295
Sally's Cove Enclave	C-15-13	16	12	11	11	11	61
Rocky Harbour Enclave	C-15-14	204	233	260	238	250	1,185
<b>subtotal # of permits:</b>		403	413	442	419	426	2,103
<b>***Estimated Volume(m<sup>3</sup> - net):</b>		9,269	9,499	10,166	9,637	9,798	48,369
<b>Total</b>							
<b>Total # of Permits Issued:</b>		804	872	863	784	796	4,119
<b>Est. Volume Harvested (m<sup>3</sup>):</b>		13,680	14,548	14,797	13,652	13,868	70,545

\* The 2002 figures are estimated based on 2001 levels.

\*\* The estimated volume is based on 11m<sup>3</sup> per permit and represents softwood only. There is very little hardwood availability in domestic operating areas on Crown Blocks within the Bay of Islands.

\*\*\* The estimated volume for Bonne Bay is based on 23 m<sup>3</sup> per permit and includes softwood and hardwood. The ratio of softwood to hardwood is 90/10.

### 2.1.2 Commercial Harvesting

For the past five years commercial harvesting was limited to four operating areas; Middle Trout River/Governor's Pond exchange within the McKenzie's Brook Crown block, Bonne Bay Big Pond

Table 2.2 Summary of Commercial Softwood Harvest: April 1998 to March 2003

Operating Areas	# Permits Issued	Sawlogs (solid m3)	Pulpwood (solid m3)	Fuelwood (solid m3)	Total (solid m3)
<b><i>Bay of Islands (only two operating areas: Gillams &amp; Old Man's Pond - unalienated Crown)</i></b>					
<b>1998</b>	<b>6</b>	<b>1,770</b>	<b>1,765</b>	<b>68</b>	<b>3,603</b>
<b>1999</b>	<b>4</b>	<b>1,415</b>	<b>658</b>	<b>68</b>	<b>2,141</b>
<b>2000</b>	<b>4</b>	<b>1,190</b>	<b>415</b>	<b>33</b>	<b>1,638</b>
<b>2001</b>	<b>3</b>	<b>1,467</b>	<b>363</b>	<b>36</b>	<b>1,866</b>
<b>2002</b>	<b>4</b>	<b>1,400</b>	<b>360</b>	<b>40</b>	<b>1,800</b>
<b>subtotal</b>	<b>21</b>	<b>7,242</b>	<b>3,561</b>	<b>245</b>	<b>11,048</b>
<b><i>Bonne Bay (only two operating areas: McKenzie's Brook &amp; Bonne Bay Big Pond - exchange areas)</i></b>					
<b>1998</b>	<b>6</b>	<b>2,445</b>	<b>3,913</b>	<b>9</b>	<b>6,367</b>
<b>1999</b>	<b>9</b>	<b>1,713</b>	<b>3,100</b>	<b>0</b>	<b>4,813</b>
<b>2000</b>	<b>8</b>	<b>2,249</b>	<b>3,261</b>	<b>0</b>	<b>5,510</b>
<b>2001</b>	<b>8</b>	<b>2,378</b>	<b>6,166</b>	<b>0</b>	<b>8,544</b>
<b>2002</b>	<b>8</b>	<b>2,500</b>	<b>6,000</b>	<b>0</b>	<b>8,500</b>
<b>subtotal</b>	<b>40</b>	<b>11,285</b>	<b>22,440</b>	<b>9</b>	<b>33,734</b>
<b><i>All Areas</i></b>					
<b>1998</b>	<b>12</b>	<b>4,215</b>	<b>5,678</b>	<b>77</b>	<b>9,970</b>
<b>1999</b>	<b>13</b>	<b>3,128</b>	<b>3,758</b>	<b>68</b>	<b>6,954</b>
<b>2000</b>	<b>12</b>	<b>3,439</b>	<b>3,676</b>	<b>33</b>	<b>7,148</b>
<b>2001</b>	<b>11</b>	<b>3,845</b>	<b>6,529</b>	<b>36</b>	<b>10,410</b>
<b>2002</b>	<b>12</b>	<b>3,900</b>	<b>6,360</b>	<b>40</b>	<b>10,300</b>
<b>Total</b>	<b>61</b>	<b>18,527</b>	<b>26,001</b>	<b>254</b>	<b>44,782</b>



exchange, Gillams, and Old Man’s Pond. The majority of the activity occurred in Mckenzie’s Brook because of the availability of commercial timber. Commercial operations were restricted to insect damaged stands and old stands that were at highest risk of mortality and blowdown. The commercial harvest consisted of softwood sawlog and pulpwood operations. The yearly breakdown of actual harvest by block is presented in [Table 2.2](#). These figures were taken directly from the permit returns provided by the contractors at year end. The actual commercial harvest levels are well below the permit allocations for both the Crown AAC landbase and the landbase regulated under CBPPL’s AAC (Tables 2.3 & 2.4). Again, this is a direct result of the limited commercial opportunities that exist in these areas. On the Crown AAC landbase, the domestic harvest

Table 2.3. Comparison of District 15 Crown AAC and the actual harvest from the AAC landbase

Year	AAC (m3/yr)	Actual Harvest		
		*Domestic (m3)	**Commercial (m3/yr)	Total (m3/yr)
<b>1998</b>	<b>17,250</b>	<b>6,146</b>	<b>3,603</b>	<b>9,749</b>
<b>1999</b>	<b>17,250</b>	<b>6,176</b>	<b>2,141</b>	<b>8,317</b>
<b>2000</b>	<b>17,250</b>	<b>5,824</b>	<b>2,212</b>	<b>8,036</b>
<b>2001</b>	<b>17,250</b>	<b>5,230</b>	<b>2,593</b>	<b>7,823</b>
<b>2002</b>	<b>17,250</b>	<b>5,248</b>	<b>2,500</b>	<b>7,748</b>
<b>Total</b>	<b>86,250</b>	<b>28,624</b>	<b>13,049</b>	<b>41,673</b>

\* *The domestic harvest includes all softwood harvested from operating areas in the Bay of islands, except the Humber Valley Reserve which is non-AAC, and two operating areas in Bonne bay; Mckenzie’s Brook and Bonne Bay Big Pond.*

\*\* *The commercial harvest credited against the AAC is from the following operating areas; Gillam’s, Old Man’s Pond, and Bonne Bay Big Pond*

is twice the magnitude of the commercial and combined they are less than half the total AAC. No attempts were made to close this gap as staff felt the AAC for Crown was an over-estimate, not reflecting the actual disturbances that have occurred since the last inventory in 1985.

[Table 2.4](#) presents a similar pattern of commercial undercut for the exchange areas that are regulated under CBP&Ps AAC. Only 55% of the allocation was harvested in the last five years. District staff are of the opinion that this undercut is a function of the lack of commercial opportunities. There are only scattered concentrations of commercial timber available in the exchange blocks and they represent difficult logging chances.

Table 2.4. Comparison of the exchange allocations and the actual harvest

Year	Allocation		Actual Harvest	
	Domestic	Commercial	*Domestic	**Commercial
1998	<b>2,000</b>	<b>9,178</b>	<b>1,842</b>	<b>6,367</b>
1999	<b>2,000</b>	<b>11,528</b>	<b>2,217</b>	<b>4,813</b>
2000	<b>2,000</b>	<b>11,530</b>	<b>2,192</b>	<b>4,936</b>
2001	<b>2,000</b>	<b>11,905</b>	<b>2,191</b>	<b>7,817</b>
2002	<b>2,000</b>	<b>11,781</b>	<b>2,097</b>	<b>7,800</b>
<b>Total</b>	<b>10,000</b>	<b>55,922</b>	<b>10,539</b>	<b>31,733</b>

\* *This domestic softwood harvest occurred mostly within the Bonne Bay Enclaves, with small amounts coming from the Humber Valley Reserve. The Enclaves are not-mapped and have no official AAC.*

\*\* *The commercial harvest occurred in Block B within the Mckenzie's Crown block and is credited against CBPPL's AAC.*

## 2.2 Silviculture

Within a year or two after harvesting, reconnaissance surveys are conducted to assess regeneration success. If there is any question as to whether an area is adequately stocked, formal surveys are conducted to quantify the actual stocking. In the past five years, there were no regeneration stocking issues identified that would require reforestation. There were, however, areas identified that had high densities of balsam fir regeneration that required spacing to improve growth rates. A total of 413 ha of pre-commercial thinning was completed in the Bay of Islands (Table 2.5). The program consisted of small scattered operations as a result of the past pattern of commercial harvesting.

Table 2.5 Summary of Silviculture Treatments : April 1998 - March 2003

Year	Treatment	Location	Area
<b>1998</b>	<b>Pre-commercial Thinning</b>	<i>Bay of Islands</i>	<b>272 ha</b>
<b>1999</b>	<b>Pre-commercial Thinning</b>	<i>Bay of Islands</i>	<b>100 ha</b>
<b>2000</b>	<b>Pre-commercial Thinning</b>	<i>Bay of Islands</i>	<b>41 ha</b>
<b>Total</b>			<b>413 ha</b>

### 2.3 Access Road Construction

There was not a significant requirement for forest access road construction in the past five years mainly because domestic harvesting was conducted in the winter using snowmobiles and a significant portion of the commercial harvest was conducted in the winter and at such a small scale that access road construction was not justified. The road building that did occur was limited to the Middle Trout River/Governor's Pond exchanges within the Mckenzie's Brook Crown block to access sawlogs and pulpwood for the sawmill operators in the area. A summary of the access road construction is presented in Table 2.6.

Table 2.6 Summary of Forest Access Road Construction : April 1998 - March 2003

Year	Operating Area	Type of Construction	# of Kms
1998	McKenzie's Brook	Replace 50' bridge	
1999	McKenzie's Brook	Primary Forest Access Road - New C class	1.75
2000	McKenzie's Brook	Replace 18' bridge	
2001	McKenzie's Brook	Primary Forest Access Road - New C class	0.75
2002	McKenzie's Brook	Primary Forest Access Road - New C-2 class	3
	Adam's Road Trout River	Road Reconstruction	5

### 3.0 PROPOSED ACTIVITIES

Forest activities for the next five years, beginning on April 1, 2003, will include commercial and domestic harvesting, silviculture, access road construction, and environmental protection. The level of these activities will be based on both biological and financial considerations. To ensure biological sustainability, all harvest allocations will be within AACs determined through formal scientific analyses, as described below. An overview map of proposed activities is presented in [Appendix IX](#).

#### 3.1 Determination of wood supply

The Province reviews its timber supply every five years in order to account for any changes in forest landbase, growth rates, and management strategies. This schedule is consistent with the Forestry Act, 1990, which established management by Forest Management District and mandates that a wood supply analysis be completed every five years. The most recent analysis, completed in 2001, has resulted in a new set of Annual Allowable Cuts (AACs) for each tenure within each Forest Management District. These AACs are defined as the maximum annual rate at which timber can be harvested at a sustainable level into the future. Details of the most recent analysis are summarized in the Forest Management Strategy document .

The key underlying principles that guided the analysis were: (i) the AAC must be sustainable; (ii) the level of uncertainty (risk) associated with the AAC must be minimized by using empirical information wherever possible; (iii) there must be conformity between information and assumptions used in the analysis and actions and decisions taken on the ground; (iv) the analysis must be consistent with other forest values and objectives; and (v) the timber supply calculation must consider economic factors, not solely the physical supply of timber. Besides establishing sustainable timber harvest levels every five years, there are supporting policies to ensure harvesting does not exceed the established AACs, that forest industry opportunities are optimized within the sustainable fibre supply, and that consultation be conducted during the timber supply analysis.

The results of the most recent timber supply review for Crown land in the District, released in 2001, is presented in [Table 3.1](#). Note that the Crown AAC is based on inventoried Crown land . It does not include the un-inventoried land, land held by CBPPL (including the various exchange blocks) or other public and federal lands such as parks and reserves. The only exception is the exchanges at Mckenzie's Brook and Bonne Bay Big Pond which were considered part of the Crown landbase for the purposes of the 2001 analysis.

The AAC is categorized into three components, **Base**, **Partition**, and **Class III**. The **Base** AAC is comprised of stands deemed economically operable, the **Partitioned** AAC includes stands that pose uncertainty as to their economic operability because of their small size and scattered location, and the **Class III** AAC represents forest stands deemed economically inoperable because of some physical impediment such as located on steep slopes, or isolated. The purpose of stratifying the AAC into a base and partition is to ensure that small isolated stands, which make

up a significant component of our forest resource, are proportionally targeted for harvest. Otherwise a potential economic highgrading of the forest stands could occur. To achieve the total AAC, harvest will have to mimic the AAC breakdown. To ensure this, each harvested stand

Table 3.1 Summary of the 2001 Wood Supply Analysis for Crown Lands in District 15

	Annual Allowable Cut (Net)(m <sup>3</sup> )			
	Base	Partition	Class III	Total
Crown	23,700	2,100	200	26,000

will be mapped and digitally compared to the AAC.

The total net AAC for Crown land in District 15 increased by 49 percent from the last analysis due mainly to an increase in available AAC landbase. This increase was the result of a change in the provincial landbase classification system used to define the AAC landbase. In the 1995 timber supply analysis, an Alienation Class 2 category was used to represent stands that had a high likelihood of some harvesting restriction, such as stands in watersheds. For purposes of wood supply only 50% of this Class 2 landbase was used. For the 2001 analysis this category was eliminated, leaving the watersheds around the many communities in the Bay of Islands to revert to Alienation Class 1, meaning that 100% of the area would be available for wood supply calculations. The change was made to accommodate the use of a spatial modeling system, but for Crown land in District 15 it resulted in an unrealistic increase in the AAC landbase and ultimately an inflated AAC.

To add to this uncertainty about the AAC, the inventory, which is the basis of the AAC, is approaching 20 years old, and few depletions have been mapped. Mapping depletions using the traditional methods is difficult due to the small size and scattered nature of the domestic harvest activities on Crown Land.

An AAC was determined for Alienation Class III lands to fulfil the legislative requirement to have an AAC for any forest lands where forestry activity could occur. On Crown land in District 15 it was determined to be 200 m<sup>3</sup>/yr. This volume, however, will not be allocated for harvest because of the extreme physical constraints associated with these areas. Most of the volume is on steep slopes, inaccessible to even domestic activities.

No hardwood AAC was calculated for Crown land in District 15 because there are few pure hardwood stands available in accessible areas. The majority of hardwood is found in softwood dominated stands that are regulated under a softwood AAC. Given the lack of hardwood stands and minimal hardwood residual from softwood harvesting, there are no commercial hardwood operators on Crown land in District 15.

## **3.2 Allocation of Wood Supply**

The establishment of the sustainable harvest levels or AACs is fundamental to sustainable forest management (SFM) and legislation requires that timber allocations not exceed the AAC. Normally the AAC is fully allocated to maximize the economic benefit. However, given the uncertainty associated with the new AAC for Crown Land in District 15, the future allocation will be maintained at existing levels.

The allocation for each of next five years credited against the Crown AAC is approximately 5,800 m<sup>3</sup>/yr domestic and 3,100 m<sup>3</sup>/yr commercial for a total of 8,900 m<sup>3</sup>/yr. This means that less than half the total AAC of 26,000 m<sup>3</sup>/yr will be allocated. It is anticipated that this allocation will be sufficient to meet the domestic softwood demand in this area, since many residents obtain a portion of their fuelwood by utilizing hardwoods from industry cutovers, and the commercial allocation equals or exceeds the actual commercial potential. On the exchange lands the commercial allocations will be reduced from 11,500 m<sup>3</sup>/yr to 6,500 m<sup>3</sup>/yr to bring it in line with actual harvest levels for the past five years.

The strategy for both commercial and domestic harvesting is to focus operations in the oldest stands at greatest risk to stand breakup and younger stands that have been impacted significantly by insects and windthrow. Also, attempts will be made to mimic the natural disturbance pattern by creating a patchwork of relatively even aged stands across the landscape. To achieve this, a modified pattern of clearcutting will be practised whereby small patches of forest are harvested, leaving scattered snag trees. By clearcutting, the amount of overall disturbance will be minimized as compared to a selective harvesting system. The size, shape, arrangement and juxtaposition of clear cut areas will vary across the landscape depending on localized topography, terrain conditions, type of harvesting, habitat requirements and the other non-timber values being addressed.

### **3.2.1 Domestic Harvesting**

The harvest of domestic fuelwood and sawlogs occurs from three main sources in the District; from designated domestic cutting blocks on Crown land, from salvage off commercial cutovers/landings on Crown and CBP&P limits, and from roadside clean-up. Within the Crown blocks attempts have been made to designate domestic cutting zones usually in concentrations of older timber and in close proximity to communities. These areas provide local residents with fuelwood, sawlogs, fencing and materials related to the fishing industry. The location of these areas are illustrated on maps found in [Appendix IV](#).

Ideally, each individual domestic cutter would be issued their own cutting block which would ensure harvest of optimal stands. Since this is not practical, domestic cutters are allowed to cut anywhere within the designated zones provided immature timber is not harvested. Since this pattern of harvest does not follow the optimum harvest schedule, a reduction in future sustainable supplies is anticipated. Trends suggests, however, that as society's needs and values continue to

change, any potential decline in sustainable supply will undoubtedly be offset with an equal or greater decline in the demand for consumptive forest products by domestic users. In any case, shortfalls in domestic fuelwood supplies in this district can readily be filled with hardwoods from industry limits.

There is varying levels of domestic harvesting in all the Crown blocks except Glover Island. The degree of activity is linked to accessibility to communities. Based on recent consumption records, the projected demand for the next five years is expected to remain constant. There is no evidence to suggest that this demand will increase over the next five years, as again, trends suggest that demand will drop. As the population ages the ability and fortitude of individuals to utilize the forest for fuelwood and sawlogs will decline. Rather than speculate on the timing and magnitude of this anticipated decline, the allocation will be projected forward for the next five years. Approximately 800 permits will be needed annually resulting in just under 14,000 m<sup>3</sup> being harvested (see [Table 3.2](#)).

As stated above, the overall strategy of domestic allocation, as with commercial, is to focus on harvesting the oldest stands at greatest risk to stand breakup and younger stands that have been impacted significantly by insects and/or windthrow. In support of this strategy there are a number of other domestic strategies;

- target low volume stands that have poor commercial harvest chances
- encourage use of under utilized species (birch, larch and aspen)
- target dead and insect damaged stands that are beyond commercial salvage
- where possible, harvest alienation class III lands that have low commercial potential
- in areas of high domestic demand, limit volume allocation in designated cutting areas and encourage alternate sources (birch, cutovers, landings etc)

Domestic cutting is regulated using a formal permitting system which is administered by the district office in Massey Drive near Corner Brook and from a satellite office located in Woody Point. The permits issued indicate the species, volume, location of the cutting area and list of conditions. These conditions specify utilization standards, buffers and other environmental requirements. An example of the guidelines for domestic cutting is presented in [Appendix III](#).

Table 3.2. Summary of anticipated softwood requirement from Crown domestic operating areas: April 2003 to March 2008

<i>year</i> Operating Area	MapID	<i>Anticipated number of domestic permits / volume proposed each</i>		
		2003 -2007		
		# of permits		*Est. Volume (m3)
<b><i>Bay of Islands</i></b>				
Lark Harbour/York Harbour	C-15-1	70	/	770
Benoit's Cove	C-15-2	120	/	1320
C. Brook Ring Rd (Mt Moriah)	C-15-3	80	/	880
C. Brook Ring Rd (Ring Road)	C-15-3	15	/	165
Wild Cove	C-15-4	10	/	110
Gillams	C-15-5	45	/	495
Old Man's Pond	C-15-6	10	/	110
Goose Arm	C-15-8	10	/	110
<i>subtotal (Crown AAC):</i>		370		3,960
Humber Valley Reserve (CBPPL AAC)	C-15-7	10	/	110
<b><i>Bonne Bay</i></b>				
Bonne Bay Big Pond	C-15-9	20	/	460
Mckenzie's Brook	C-15-10	60	/	1380
<i>subtotal (Crown AAC):</i>		80		1,840
Woody Point Enclave	C-15-11	25	/	575
Sally's Cove Enclave	C-15-13	10	/	230
Rocky Harbour Enclave	C-15-14	250	/	5750
<i>subtotal (enclaves):</i>		285		6,555
Adam's Road Trout River	C-15-12	60	/	1380
<b>Total</b>		<b>795</b>	<b>/</b>	<b>13,845</b>

\* The estimated volume is based on 11m3 per permit for the Bay of Islands and 23m3 per permit for Bonne Bay. The Bonne Bay permits include both hardwood and softwood volumes.



### 3.2.2 Commercial Harvesting

The opportunities for commercial harvesting in District 15 are very limited especially on unalienated Crown Land. This is due mainly to the lack of concentrations of mature timber. For this reason, the Crown is pursuing timber exchange agreements with CBP&P to try and secure long term supplies for local commercial operators, such as the sawmillers in Bonne Bay. Currently, there are four active exchange agreements between the Crown and CBP&P; Humber Valley Reserve, Bonne Bay Big Pond, Middle Trout River/Governor's Pond and Mckenzie's Brook (the last two exchanges physically border each other and are combined into a single Crown block for the purposes of this plan).

[Table 3.3](#) presents the proposed commercial allocation for the next five years. On average, approximately 9,600 m<sup>3</sup> per annum will be allocated to commercial operators in the District. Of this total, nearly two-thirds or 6,500m<sup>3</sup> will be allocated to the Bonne Bay operators in the Middle Trout River/Governor's Pond operating area within Mckenzie's Brook Crown block. This area poses many obstacles to commercial operations such as difficult terrain, short operating season, and fragmented forests, yet it is the best opportunity on Crown for commercial operations. This allocation of 6,500 m<sup>3</sup>/yr is the amount CBP&P is allowing to be drained against their AAC. It represents a significant reduction when compared to the previous five year allocation of 11,500m<sup>3</sup> per year, however, it is slightly higher than the average harvest for the last five years. There are seven commercial operating areas identified within Mckenzie's Brook block on Map:C-15-10 in [Appendix V](#). The proposal is to conduct harvesting in each of the areas 1 to 6 with area 7 as an alternate.

The other commercial operations in District 15 are those regulated under the Crown AAC and they include; Gillams and Old Man's Pond in the Bay of Islands and Bonne Bay Big Pond exchange. There are five commercial permits issued in total with a combined allocation of 3100 m<sup>3</sup>/yr. This low allocation directly reflects the limited opportunities for commercial harvesting, as most of the remaining timber is in isolated stand remnants. This situation will continue for at least the next twenty years until the regenerating forest matures to an operable size. In the meantime there will be no opportunity for any expansion.

The Forest Service have developed a number of strategies to try and maximize the economic and social benefit of the forest resource. These strategies are summarized below:

#### *Fibre Perspective -*

- the highest harvest priority will be placed on the oldest timber in the worst condition that is losing volume fastest. Next, younger stands damaged by insects and disease and at risk of mortality will be targeted,
- keep losses resulting from poor timber utilization to a minimum (< 6 m<sup>3</sup>/ha)

Table 3.3 Summary of the Proposed Commercial Allocation : April 2003 to March 2008

Crown Block	# Permits Issued / year	Total Allocation (m3/yr)	Tenure
<i>Regulated under Crown AAC</i>			
<b>Gillams</b>	<b>2</b>	<b>972</b>	<b>Unalienated Crown</b>
<b>Old Man's Pond</b>	<b>2</b>	<b>1,520</b>	<b>Unalienated Crown</b>
<b>Bonne Bay Big Pond</b>	<b>1</b>	<b>625</b>	<b>CBPP to Crown Exchange (no expiry date)</b>
<b>subtotal</b>	<b>5</b>	<b>3,117</b>	
<i>Regulated under CBP&amp;P's AAC</i>			
<b>Mckenzie's Brook (Middle Trout River/ Governor's Pond)</b>	<b>8</b>	<b>6,500</b>	<b>CBPP to Crown Exchange (expires April 2007)</b>
<b>District Total</b>			
	<b>13</b>	<b>9,617</b>	

*Non-fibre perspective -*

- utilize irregular cut block size that follow contours and natural boundaries where possible
- consider maintenance of unharvested corridors between harvest blocks to act as wildlife travel corridors
- vary buffer widths to protect other values (ie. larger buffers on salmon rivers)
- where possible utilize winter harvest on wet and sensitive sites
- maintain current size and distribution of clear cuts
- use landscape design techniques to mitigate viewshed impacts on areas of concern

### 3.3 Silviculture

The silviculture strategy for Crown land in District 15 is to ensure disturbed areas are sufficiently restocked to a minimum of pre-disturbance conditions and conduct enhancement programs where possible. Since District 15 is comprised mainly of balsam fir forests, which regenerate extremely well after harvesting and insect damage due to the presence of large amounts of advance regeneration that is released once the overstory is removed, silviculture activities will focus on reducing overstocking problems.

The most commonly used treatment to deal with overstocking problems is pre-commercial thinning of young juvenile stands. The issue on Crown Land is finding areas large enough to make a treatment operationally feasible. Rather than have a silviculture program every year, the program is intermittent to allow time for areas to accumulate to an operational size. A summary of proposed silviculture treatments for the next five years is presented in Table 3.4. This silviculture program meets the assumptions used in the recent timber supply analysis. While, silviculture will not have an immediate impact on the annual allowable cut (AAC), it will ensure long term health and increased productivity. Maps of proposed silvicultural operating areas can be found in [Appendix VII](#). The areas proposed will avoid any sensitive locations and no treatment will be undertaken within prescribed harvesting buffers, i.e., a minimum of 20 meters will be left around waterbodies and streams. In addition, the Environmental Protection Guidelines will be enforced on all operations.

Table 3.4 Summary of Proposed Silviculture Treatments : April 2002 - March 2008

Year	Treatment	Location	Area
2003	Pre-Commercial Thinning	Mckenzie's Brook (C-15-10)	100 ha
2004	Pre-Commercial Thinning	Mckenzie's Brook (C-15-10)	100 ha
2005	Pre-Commercial Thinning	Frenchman's Pond (C-15-6)	100 ha
2006	Pre-Commercial Thinning	Gillams (C-15-5)	100 ha

### 3.4 Access Road Construction

There is limited requirement for new forest access road construction on Crown land in District 15, as most concentrations of commercial timber are already accessed and domestic harvesting is conducted in the winter using snowmobiles. The small amount of road construction and upgrade proposed will occur in the McKenzie's Brook block. This is needed to access sawlogs and pulpwood for the sawmill operators in the area. The type of construction required is outlined in Table 3.5 and illustrated in [Appendix VI](#). The new primary forest access roads proposed are extensions to existing road systems.

Table 3.5 Proposed Primary Forest Access Road Construction : April 2003 - March 2008

Year	Crown Block	Type of Construction	# of Kms
2003	McKenzie's Brook	Primary forest access road - C class	2.5
2004	McKenzie's Brook	Primary forest access road - C class	1
2005	McKenzie's Brook	Primary forest access road - C class	2.5

These proposed primary forest access roads will be submitted for funding under the Department's Provincial Capital Roads Program. From there, they will be submitted to the Inter-departmental Land Use Committee (ILUC) for review and comment. If approved, construction contracts will be advertised for public tender. All roads will be constructed to specifications outlined in the Resource Road Operating Manual and construction activities will be regulated in accordance with the Forest Access Road Guidelines which are included in the Environmental Protection Guidelines ([Appendix II](#)).

Roads other than primary forest access road are the responsibility of commercial operators. The location and standard of these operational roads must be submitted for comment through ILUC and approved by District staff prior to construction.

### 3.5 Forest Protection

Over the last the two decades, there have been a number of insect infestations causing considerable damage to the balsam fir forest of the district. These infestations were caused by the spruce budworm, hemlock looper and most recently the balsam fir sawfly. In an attempt to minimize the timber losses, the Forest Service has conducted aerial spray programs using both chemical and biological control agents. Also, salvage operations have been directed at mature stands with high mortality in an attempt to recover fibre for commercial and domestic uses.

The latest ongoing balsam fir sawfly infestation is targeting the younger managed regenerating forest. The damage severely impacts on the tree's photosynthetic capacity resulting in significant growth loss. To date, there is no approved control agent to target this insect and salvage operations are not feasible given the maturity of the stands being affected. This poses a real challenge to forest managers as this forest is the key to sustaining fibre supplies in the future.

### 3.6 Protected Water Supply Areas

There is no commercial harvesting, or road construction scheduled for any of the Protected Water Supply Areas (PWSA) on Crown land in District 15. Table 3.6 lists all the PWSA and indicates

the operating area map where each is located. Also, [Appendix VIII](#) presents an overview map

Table 3.6 Protected Water Supply Areas on Crown land in District 15.

Protected Water Supply Areas	Reference Map# (Appendix IV)
<b>Humber Arm South (Clarke’s Brook)</b>	<b>C-15-2</b>
<b>Corner Brook Watershed (Burnt Pond)</b>	<b>C-15-3</b>
<b>Hugh’s Brook (Hugh’s Brook)</b>	<b>C-15-4</b>
<b>Frenchman’s Pond *</b>	<b>C-15-5</b>
<b>Meadows (Meaters Pond) *</b>	<b>C-15-5</b>
<b>Cox’s Cove (Cox’s Brook) *</b>	<b>C-15-6</b>
<b>Pasadena (Transmission Brook)</b>	<b>C-15-7</b>
<b>Glenburnie (Croucher’s Brook) *</b>	<b>C-15-11</b>
<b>Trout River (Feeder Brook) *</b>	<b>C-15-12</b>
<b>Norris Point (Neddy’s Harbour Pond) *</b>	<b>C-15-14</b>
<b>Rocky Harbour (Gull Pond) *</b>	<b>C-15-14</b>

\* indicates that domestic harvesting is ongoing.

outlining the location of these PWSA. Forestry activity will be limited to domestic cutting in the winter months with extraction by snowmobile. To ensure protection of these PWSAs, the following special criteria apply;

- a Certificate of Approval is required under the Environment Protection Act prior to operating inside a PWSA,
- cutting permits must highlight the pertinent Environmental Protection Guidelines as they applied to PWSA ,
- cutting permits must include detailed maps of the PWSA boundaries,
- cutting permits must include maps specifying the buffer requirements presented in Table 3.7,
- there is continuous monitoring by Conservation Officers while cutting activity is ongoing to ensure compliance with the permit conditions.

Table 3.7 Buffer requirements within Protected Water Supply Areas (PWSA)

Water Body	Width of Buffer Zone
1. Intake pond/lake/reservoir	A minimum of 150 m
2. River intake	A minimum of 150 m for 1 km upstream and 100 m downstream
3. Main river channel	A minimum of 75 m
4. Major tributaries/lakes/ponds	A minimum of 50 m
5. Other water bodies	A minimum of 30 m

These buffers are consistent with the guidelines for harvesting within PWSAs which are contained in the Environmental Protection Guidelines.

### 3.7 Environmental Protection and Land Use

In addition to fire suppression and insect control programs, this section will outline the District’s approach to other forest values and land use. This is based on past experience and discussions that were held with various government agencies and groups during the development of this plan.

#### 3.7.1 Fire Suppression

The balsam fir forest types which dominate the landscape of Western Newfoundland are not prone to fire disturbance. Typically these forest types have an abundance of green undergrowth which minimizes the fuel loading and ultimately the risk of fire. Also, favorable weather conditions tend to keep fires indices low. With the exception of a fire near Gillams in 1989, there have been no significant fires in District 15 for last 20 years.

Despite the low incidence of large forest fires, the risk of fire still exists, especially on harvesting operations in the summer months. Therefore, all harvesting operations must meet the same fire prevention/safety requirements as those in other parts of the Province. To ensure that those regulations are followed, regular checks are made on operators during the fire season. These checks will ensure that all operations comply with the Standard Fire Protection Regulations which are proclaimed annually.

In addition to enforcing the regulations on forestry operations, other fire prevention strategies are undertaken to enhance public awareness, and reduce fire occurrence;

- incinerator burning only, is permitted during the fire season. Garbage dump sites are inspected and recommendations for corrective measures are made to the appropriate authority,
- the provincial and private parks are checked for fire hazards and their fire equipment is tested,

- district staff will work closely with local fire departments through personal contacts and information exchange. In addition to communities, cabin development areas will be assessed and owners/groups will be advised of hazards and prevention measures,
- during the fire season the provincial public information program on forest fire safety will be augmented by articles to local papers, announcements on local radio, sign postings and staff contact with the general public. During periods of extreme hazard, patrols will be increased to remind recreational users of fire danger.

In the event that fire does occur, operators are required to report immediately and conduct initial suppression efforts. Fires can be reported to one of two depots, Sop's Arm or Pynn's Brook. The response capability of the District consists of one fire truck and six fire patrol staff stationed at Pynn's Brook. When required, a helicopter and water bomber are available from Deer Lake and additional aircraft can be obtained from Gander.

### **3.7.2 Insect and Disease**

Protection programs directed at controlling insects are coordinated through the Forest Engineering and Industry Services Division located in Corner Brook. Insect populations are monitored on an annual basis through a system of sample plots which have been established throughout the Province.

### **3.7.3 Agriculture**

There is one domestic cutting area, Goose Arm Road, on the north side of Deer Lake that falls within an agriculture development area. Only domestic harvesting is permitted in this area with extraction by snowmobile.

### **3.7.4 Cabin Development**

Applications for cabin development will be reviewed on a case by case basis through the Crown land referral process.

### **3.7.5 Mining**

Forestry does not negatively impact potential mining activity. In fact, it may facilitate exploration by providing access to remote areas. However, mining activity can have a significant impact on forestry especially in areas where large investments have been made in reforestation and/or forest enhancement. To minimize these conflicts, all proposed silviculture and road construction is submitted to ILUC for comment, and all planned forestry activities are provided to each Government Department for review.

Also, applications for mining exploration are submitted to the Department of Environment which requires review and comments from other government departments.

### **3.7.6 Parks and Protected Areas**

No permits will be issued to harvest in any of the proposed or existing protected areas. In District 15, these include; the T'Railway, Blow Me Down Provincial Park, Glover Island Crown Reserve, the proposed Serpentine Lake public reserve and the Grand Lake Brook IBP site.

### **3.7.7 Historic Resources**

There are a number of examples in the District where the Cultural Heritage Division have indicated potential archeological sites. The result is a number of 100/150 metre buffers maintained on major rivers and coastal areas.

### **3.7.8 Tourism & Recreation**

In recognition of the importance of the tourism industry and recreational opportunities in District 15, the Department has been proactive with a number of groups to protect high value recreational areas. For example:

- no-cut zone has been established around the Blow-me-down Cross Country Ski trails,
- no-cut zone has been established around the tube park on the Corner Brook Ring Road,
- 100m buffer on the main stem of all scheduled salmon rivers and 50m on all major tributaries,
- 30m on approved snowmobile trails
- 20m on approved hiking trails
- 100m on the Provincial Trailway.

Department staff will continue to work with groups such as the local snowmobile club and tourism association to avoid and resolve any conflicts with recreational areas.

The potential for negative visual impacts from commercial harvesting on Crown land in District 15 is minimal because of the small size and temporal nature of harvesting across the landscape, and the fact that no commercial activity will be visible from the TCH. In domestic areas, such as the Humber Valley Reserve that are in view of the highway, special conditions and monitoring will be in place to ensure the visual integrity will not be impacted. Should a conflict develop, the option of applying landscape management techniques (ie skyline reserves, etc) will be explored.



### **3.7.9 Outfitters**

The outfitting industry has a presence in District 15, however, no lodges exist within the Crown. For this reason, no impact of this plan is anticipated on the outfitting industry.

### **3.7.10 Water Resources**

The protection of municipal water supplies was discussed in an earlier section. Activities will be carried out as per the Environmental Protection Guidelines. Outside PWSA, water quality will be protected through the implementation of 20 metre treed buffers on all streams that appear on a 1:50,000 topographic map or which are greater than 1 metre in width. Also, 100 metre buffers will be maintained on the main stem of scheduled salmon rivers, and 50m on all major tributaries.

### **3.7.11 Wildlife**

Forestry activities impact wildlife species in many different ways depending on type of activity and the individual species. The goal of forest ecosystem management is to minimize the impact forest management activities have on the habitat of wildlife species. This is often very difficult to monitor because each species has its own unique habitat needs - what may be good for one species may not be for another. To address this issue, wildlife managers have adopted an approach of selecting either a single or small number of indicator species to represent the habitat requirements of larger groups of species. There are several examples provided that illustrate actions taken to mitigate the potential impact for harvesting on wildlife habitat, especially the endangered Newfoundland Pine Marten.

Wildlife Habitat - to ensure the sustainability of all forest age classes into the future, the Department in the most recent timber supply review, targeted a minimum sustainable limit of 20 percent for mature/overmature forest. On Crown land in District 15 it achieved between 22 and 48 percent over the entire planning horizon (160 years). This age structure maintenance combined with the areas that will not be harvested for operational (ie: steep slope) and regulatory (water course buffers) reasons should provide habitat for many wildlife species across the landscape. When that is not sufficient, reserves and/or corridors are identified to provide necessary habitat and connectivity. For example, in McKenzie's Brook operating area (Map 15-10) the Department identified a no-cut buffer adjacent to the barren highlands to ensure harvesting does not remove the treed fringe that may be important for wildlife habitat adjacent to the open highlands.

Connectivity - A cooperative effort between government and industry is ongoing to establish a habitat corridor connecting Main River to the southern forest limits of District 14. The Crown exchange block at Bonne Bay Big Pond (Map 15-9) was identified as a key area in terms of providing connectivity between District 15 and Gros Morne National Park. To ensure this area provides the necessary habitat both physically and temporally, harvesting will be consistent with the Pine Marten Guidelines. Commercial harvesting will be minimized for the duration of this plan.

Snag Retention - Snags provide nesting and feeding habitat for various bird and insect species. A minimum of 10 snags per hectare will be maintained in areas scheduled for harvest.

Raptor Nests - District staff will notify the Wildlife Division of all new nesting sites. Known sites are digitally mapped and available at the District office. An 800 metre buffer will be maintained from late April to the end of July if the nest is occupied. A 200 metre buffer will be maintained after that.

### **3.8 Criteria and Indicators**

In 1992, the Canadian Council of Forest Ministers released the National Forest Strategy. One of the commitments made under this strategy was to develop a national set of criteria (forest values) and indicators which would measure Canada's progress toward Sustainable Forest management.

One of Newfoundland and Labrador's commitments under the National Strategy was to develop local criteria and indicators (C & I) based on the national framework. This task was completed by the Western Newfoundland Model Forest (WNMF) and its partners. The Model Forest version of C & I was adopted by the District 15 Planning Team and can be found in the District 15 Strategy Document.

This section identifies specific actions under each of the six criteria and provides linkage to the Forest Ecosystem Strategy Document. These actions are as follows:

#### **3.8.1 Biodiversity**

Representative Landscapes - In support of the Provincial Protected Areas Strategy, candidate reserve areas have been removed from the current timber supply analysis. To further ensure representation of forest types on the landscape, the Department, in the most recent timber supply analysis, set an objective that required a minimum of 20% of the forest be maintained in stands older than 81 years (Age class 5+) into the future. On Crown land in District 15, the actual amount of forest in these older age classes fluctuates between 22% and 48% during the rotation. The maintenance of this older forest is consistent with the goals and objectives of biodiversity.

Special Places - There have been no special places identified within the areas proposed for harvesting. If any should arise, such as rare plant sites, during the implementation of this plan harvest plans will be modified as determined appropriate.

Wildlife Habitat - The establishment of a habitat corridor is well underway to ensure that sufficient habitat and connectivity is maintained at the landscape level. Also, a Pine Marten Habitat Model is being calibrated and tested to facilitate a landscape habitat analysis. There are two groups pursuing this goal; A technical working group, consisting of representatives of the Wildlife Division, ACI and CBPP, and DFRA and a broader Connectivity Committee with representatives from ForCan, GMNP, DFRA, CBP&P, & PNA.

Native and Value Species - The current moratorium on the harvesting of white pine combined with the research and silviculture initiatives are consistent with the policy regarding the protection and conservation of old growth white pine and the enhancement of white pine regeneration. These activities also meet the goals and objectives of maintaining species diversity.

### **3.8.2 Healthy Forest**

Natural Processes - to ensure that disturbed areas are adequately stocked, they will be assessed and scheduled for planting if necessary.

### **3.8.3 Soil and Water**

Water - Water quality will be protected by maintaining uncut buffers, no grub zones, installation of approved crossings and conducting operations in accordance with the Environmental Protection Plan. Section 6.0 of the EPP outlines guidelines for operations within Protected Waters Supply Areas.

Soil - Mineral soil exposure will not exceed 10% during harvesting operations. This target is consistent with the goals and objectives of soil conservation.

### **3.8.4 Global Impacts**

Forest Land Conservation - Attempts are being made to minimize road widths and reduce the number of landings. When possible applications for agricultural expansion will be directed toward existing agricultural development areas.

### **3.8.5 Benefits to Society**

Commercial Timber - To ensure a sustainable harvest, the AAC will not be exceeded during this planning period. Utilization surveys will also be conducted on an operating area basis to ensure that residual volumes does not exceed 6 m<sup>3</sup> per hectare.

Recreation - To protect high value recreation areas, a 100 metre buffer will be maintained on the main stem of scheduled salmon rivers. Also 20 - 30 metre buffers will be maintained on groomed snowmobile and various hiking trails throughout the District.

### **3.8.6 Public Involvement**

Fair Decision Making - Planning Team members have been invited to establish a District Monitoring Committee which would monitor the implementation of the plan over the next five years. This is

consistent with the goal of providing active ongoing public involvement in the forest management planning process.

### **3.9 Surveys**

There are many ad hoc surveys conducted within the District in response to immediate and special concerns. There are, however, only two formal surveys that are conducted on a regular basis; utilization surveys and regeneration surveys.

- **utilization surveys** are conducted periodically to measure the fibre left on cutovers after harvesting. These losses are usually from cull, breakage, large tops, and generally merchantable wood that was not removed from the site. Losses can vary significantly due to the following: (1) condition of the stand, (2) logging system, (3) season, and (4) individual operator.

The results from these utilization surveys are used to adjust the AAC. If surveys indicate a 20 % volume loss on average, then the Gross AAC will be reduced by 20% which in turn will reduce allocation by 20%. This adjustment of the AAC is very important because often the utilization losses are not attributable to poor practices but rather poor timber condition. If losses are as a result of poor harvesting practices and exceed acceptable limits, efforts will be made to recover fibre and/or penalize violators by laying charges.

Utilization surveys will be scheduled annually in areas of concern to ensure that logging losses do not exceed the regulated 6 m<sup>3</sup> allowance.

- **regeneration surveys** are conducted 3 - 5 years after harvesting to determine if an area is sufficiently re-stocked with natural regeneration. The process involves doing a reconnaissance of the area to determine if regeneration appears to be inadequate. If there are indications of regeneration failure, formal surveys will be conducted to determine the magnitude and location. The procedures for these surveys are consistent with those developed by the Silviculture and Research Section in the Regeneration Surveys & Procedures Manual.

### **3.10 Monitoring and Inspection**

Monitoring of planned activities is critical to ensure objectives are achieved and operations are carried out in a manner consistent with various guidelines and provincial and federal legislation. Monitoring occurs at several levels;

**On the ground:** all harvesting activity is regulated using a permitting system and all activities are inspected and monitored on the ground by Conservation Officers to ensure compliance with the Forestry Act and regulations, cutting permit conditions and the Environmental Protection Guidelines. Permit holders and contractors are subject to tickets and fines if found to be non-compliant. Road construction and silviculture contractors are also subject to financial deductions if work does not meet

contract specifications. Conservation officers conduct inspections on a weekly or monthly basis depending on the level of activity.

**Planning level:** - at the beginning of each year the Forest Service is required to develop detailed annual work plans consistent with the registered Five Year Operating Plan. At year's end, a past annual report is prepared outlining the actual activities that were undertaken. Any significant changes to the Five Year Plan that may have been required during implementation would have to be registered in the form of an amendment under the Environmental Protection Act and approved by the Department of Environment. These amendments undergo the same public consultation process as the Five Year Operating Plan.

Finally, members of the District Planning Team have been invited to form a local monitoring committee. This group could meet twice a year to review proposed annual plans and follow up with site visits to monitor implementation.

### **3.11 Amendments to Plan**

Due to unforeseen circumstances and requests there may be amendments required to this plan. When and if this requirement arises, application will be submitted to the planning team and Department of Environment for approval.

### **3.12 Specific Planning Team Issues and Concerns**

The planning team had no outstanding issues with the plan, however, there was interest in establishing some form of monitoring mechanism. The team felt it best to wait until the end of the first year of operation to get back together and plan monitoring activities.