

MacMILLAN BLOEDEL LIMITED

1997 ANNUAL REPORT

HAIDA TREE FARM LICENCE

No. 39

SEPTEMBER 1998

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MacMillan Bloedel Limited
Solid Wood Group

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1.0 SUMMARY

1997 was the second year of Management Plan #7 for TFL 39. It was the second year of the five-year cut control period 1996–2000.

1.1 General Comments

Poor market conditions in Japan and high costs contributed to a difficult year. Consequently, in the latter part of 1997, MB initiated an intensive review of all aspects of its business. The results of this process will occur largely in 1998.

In the late summer and fall, demand decreased significantly in the Japanese market, particularly for hemlock/balsam lumber products. Demand for redcedar products (mainly sold in the North American market) remained relatively firm during this period. The USA softwood quota restrictions prevented BC companies from redirecting Japan destined lumber to the USA.

Coastal BC continued to be a high cost producer in 1997. Substantial cost increases have occurred in recent years, mainly from increased costs of regulations and from additional stumpage charges.

The result was a significant reduction in harvesting during the last half of 1997, particularly in ewood sawmills, Alberni Pacific Division (APD) in Port Alberni and Island Phoenix Division (IPD) in Nanaimo had substantial down time because of the very poor market opportunities.

A comprehensive review of management strategies and operations occurred in late 1997 and early 1998.

The company reaffirmed its commitment to the solid wood products industry in BC. MB's goal is to be a highly respected forest products company. This includes attaining high standards in safety and business success.

Strategies will be developed during 1998 to achieve these goals. The strategies include:

- A dedicated effort to improve safety in the work place.
- Initiating with the IWA a program of co-designing operations, of involving all employees in improving safety and productivity and reducing costs. Competitive operations are critical for both corporate success and for the health of the local economy including provision of employment opportunities.
- Restructuring of operations to reduce overhead costs.
- A thorough examination of forest management practices including traditional clear-cutting. This is in response to market and general public concerns.
- A review of manufacturing and distribution operations to determine more effective ways of meeting customer needs.

2.2 Production by Harvest Profile

Results are based on Divisional volume data (excluding residue) and on the inventory classification for operability. In 1997 there was 2 083 880 m³ of first growth harvested in the conventional economic class and 231 139 m³ in the non-conventional economic class. A further 34 032 m³ classified as marginal economic was logged. In addition 370 847 m³ of second-growth timber was harvested. The details of the Harvest Profile production are shown in Appendix I, Table 1a. Since these volumes are based on the divisional volume reports they differ from the data shown in Table 1 of Appendix I. Appendix I, Table 1b details the volume cut by Operability Class in each of the TFL Blocks.

2.3 Volumes Harvested by SBFEP

Volume harvested on SBFEP timber sales totaled 160 854 m³ excluding residue, as shown in Table 2 of Appendix I. Note that the SBFEP harvest volumes are not required for the cut control calculations relative to MacMillan Bloedel's AAC allocation. The following table shows the volume harvested over the last five years. Note that residue may not be billed every year.

Year	1993	1994	1995	1996	1997
Volume Harvested (m ³)	236 625	128 380	179 606	151 798	160 854

2.4 Residue

Residue is measured and reported annually for the TFL. Residue applied to Cut Control is the volume processed through the Stumpage and Royalty system in the reporting year, regardless of the year scaled.

A total of 1,792 plots was established on 3 834 ha in 1997 to measure residue and waste for Cut Control purposes. A total of 128 581 m³ of residue was charged to the AAC in 1997.

2.5 Cutting Balance

This is the second year of the Cut Control period from 1996 to 2000. The harvest in 1997 was 81.6% of the AAC. Cut Control status is shown below.

Year	1996	1997	Total
MB AAC (m ³)	3 545 460	3 577 780	7 123 240
Actual Cut (m ³)			
• Log Scale	3 133 897	2 791 082	5 924 979
• Residue	159 971	128 581	288 552
Total Actual Cut (m ³)	3 293 868	2 919 663	6 213 531
Percent of AAC	92.9%	81.6%	87.2%

1997 harvest levels compared to AAC contributions are shown below.

Block	AAC Contribution m ³	SBFEP Allocation m ³	MoF District	MB Allocation m ³	Volume Harvested including Residue m ³	Variance	
						m ³	%
I	445 000	21 462	Sunshine Coast	423 538	385 307	(38 231)	(9)
II	1 335 000	58 654	Campbell R	1 276 346	932 125	(344 221)	(27)
III, IV	415 000	14 884	Port McNeill	400 116	354 223	(45 893)	(11)
V	100 000	3 680	Campbell R	96 320	193 143	96 823	101
VI	1 210 000	56 324	Queen Charlotte	1 153 676	886 640	(267 036)	(23)
VII	195 000	7 214	Mid-Coast	187 786	168 225	(19 561)	(10)
Decid.	40 000	--		40 000	N/A	N/A	
Total	3 740 000	162 218		3 577 782	2 919 663	(658 119)	(18)

The deciduous AAC allocation of 40 000 m³ is not specifically assigned by Block, but is assigned to areas described as deciduous in the inventory. This includes stands with a deciduous species (usually red alder) as the leading or primary species.

A procedure for estimating the harvest volumes from these stands has been proposed and will be applied in the 1998 Annual Report. At that time, an attempt will be made to apply the same procedure to volumes harvested from deciduous stands during 1996 and 1997.

In the meantime it is noted that 28 ha and 33 ha of deciduous stands were harvested in Block I (Powell River) during 1996 and 1997 respectively (refer to Section 4.4.6). Most of the harvest of deciduous stand is expected to occur in Block I. Volumes harvested from deciduous stands in 1997 are included in the volume-harvested figures.

2.6 Contractor Production

The percent compliance achieved under the contractor clause regulation was 138.6%.

<u>Summary of Contractor Production (m³)</u>		
Full	1 307 396 m ³	79%
Phase <i>(equivalent volume processed)</i>		
Roads	289 535	
F & B	8 187	
Yarding	29 983	
Loading	11 890	
Hauling	2 718	
	<u>342 313 m³</u>	<u>21%</u>
TOTAL	<u>1 649 709 m³</u>	<u>100%</u>

3.0 TFL 39 BLOCK HARVESTING ACTIVITIES

The AAC for TFL 39 is partitioned by Block to facilitate geographic distribution of the cut. This portion of the Annual Report contains comments on the harvesting activities in each Block.

Block I Powell River

Administered by
Stillwater Division



3.1 Block I (Powell River)

Block I is located to the north and east of Powell River, encompassing the Powell, Dodd and Lois Lake drainages and extending east to include the peninsula between Hotham Sound and Prince of Wales Reach. The Block contains 183 000 ha, of which 89 000 ha is productive forest supporting hemlock, balsam, cedar and Douglas-fir. The current AAC allocation for Block I of 445 000 m³ is approximately distributed as 21 462 m³ for SBFEP and 423 538 m³ for MB harvest. Stillwater Division, based in Powell River, administers this Block.

3.1.1 Annual Harvesting

Stillwater harvested 385 307 m³ in 1997. This includes 15 721 m³ of residue (4% of the total) charged to the cut. This material was harvested using conventional, longline and heli-logging systems. Harvesting systems being considered for future use include group shelterwood and a series of intermediate cuts. Stillwater harvested 33 ha of hardwood stands to prepare the area for conversion to coniferous timber.

3.1.2 Engineering Development

Mainline access was extended along the Rainbow mainline in the Powell Lake drainage and the Lois mainline in the Lois Lake drainage. Work on a total of 10 bridges, located throughout the active logging area, was completed.

3.1.3 Development Plans

A Five-Year Development Plan for Block I was approved in 1997. Public meetings were held in Powell River.

3.1.4 Cutting Permits

The following Cutting Permits were active in 1997:

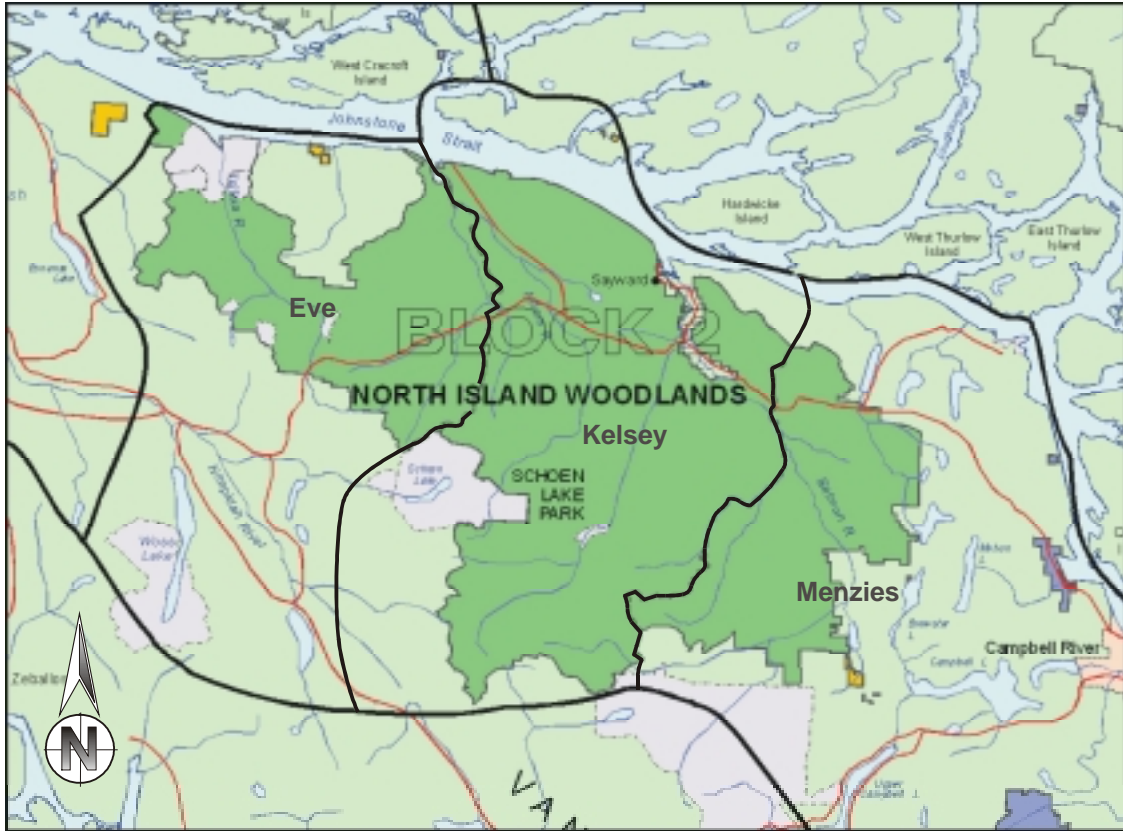
Cutting Permit No.	Location
1	Lois Lake/St. Vincent Bay
3	Powell/Daniels
5	Olsen Valley
6	Goat Lake
9	Windsor Lake/Rainbow Main
91	Stillwater Valley
99	Goat Island

3.1.5 Scaling

All harvested wood was 100% stick scaled at the various dryland sorts. In addition, some weight scaling was done at the Stillwater dryland sort.

Block II Adam River

Administered by
Eve, Kelsey and Menzies



3.2 Block II (Adam River)

Block II is located north and west of Campbell River. It includes the Salmon, Adam, Eve, Tsitika and White River drainages. The Block contains a total of 208 000 ha, with 170 000 ha of productive land supporting a forest of hemlock, balsam, cedar and yellow cypress timber. The current AAC allocation for Block II of 1 335 000 m³ is approximately distributed as 58 654 m³ for SBFEP and 1 276 346 m³ for MB. During 1997 three MB divisions managed the block: Eve River, Kelsey Bay and Menzies Bay. A re-organization in early 1998 combined these Divisions into the North Island Division.

3.2.1 Annual Harvesting

The three divisions in this Working Circle harvested a total of 932 125 m³, including 42 840 m³ of residue. Eve River cut 299 603 m³, Kelsey Bay harvested 405 966 m³ and Menzies Bay logged 226 556 m³ including residue. Conventional logging systems were used in all Cutting Permits, supplemented in some cases with longline and heli-logging systems. Future systems being

considered are clearcut with reserve, shelterwood and clearcut leaving wildlife tree patches.

3.2.2 Engineering Development

Eve River Division extended both the Catherine and Alpha mainlines. Extensive work on mainline and branch roads was also done in Kelsey (33 km) and Menzies (15 km). Major bridges were built on the Alpha mainline and on Kunnum 93A in Eve River Division.

3.2.3 Development Plans

Five-year Development Plans for the three divisions in this working circle were approved in 1997. Consultations were held in the Divisional offices, Sayward, Campbell River and with First Nations Groups.

3.2.4 Cutting Permits

Cutting Permits active in Block II during 1997 were:

Division	Cutting Permit No.	Location	Division	Cutting Permit No.	Location
Eve	19	Eve River	Kelsey	206	Middle Memekay
	20	Tsitika River		207	Memekay/Rooney L.
	800	Tsitika River		208	Lower Adam
	801	Tsitika River		209	Memekay
	802	Eve River		211	White River
	803	Tsitika/Eve Rivers		213	North Memekay
	804	Tsitika/Eve Rivers	Menzies	104	Memekay
Kelsey	12	Moakwa Creek		105	Memekay
	200	White River, Memekay		106	Amor de Cosmos
	201	North Memekay		107	Salmon River
	202	Newcastle, White River		108	Big Tree Creek
	203	Middle Memekay		109	Memekay
	204	White River		113	Memekay
	205	Rooney Lake/Newcastle			

3.2.5 Scaling

All wood processed through the dryland sorts at Eve River, Kelsey Bay and Menzies Bay were 100% stick scaled. Campbell River Mills and Leaky Pole Yard in Courtenay were also 100% stick scaled material from Menzies Bay. Campbell River Fibre weight scaled logs from Menzies Bay.

Block III Coast Islands

Block IV Port Hardy

Administered by
Port McNeill Division



3.3 Block III (Coast Islands) and Block IV (Port Hardy)

Port McNeill Division administers Blocks III and IV. Block III includes property on North Broughton, Gilford, Turnour, Harbledown, Watson and Kinard Islands and a parcel on Vancouver Island at Beaver Cove. Block IV includes land in the Benson, Victoria, Alice and Marble River drainages and an area between Rupert Inlet and Port Hardy. The combined areas of the two Blocks is 68 000 ha, mostly in Block IV (77%). Total productive area is 54 000 ha, supporting a forest of hemlock, balsam, cedar and yellow cypress. The current AAC allocation for Blocks III and IV of 415 000 m³ is approximately distributed as 14 884 m³ for SBFEP and 400 116 m³ for MB harvest.

3.3.1 Annual Harvesting

Port McNeill Division harvested a total of 354 223 m³, including 15 779 m³ of residue in 1997. The residue was 4% of the total cut. The conventional logging system was the most common method used to harvest this timber. The longline

system was used on one Cutting Permit and heli-logging was used on another. Some commercial thinning is being considered for the future.

3.3.2 Engineering Development

Road development included work on the Skidder, and Cabin mainlines.

3.3.3 Development Plans

A Five-year Plan for the Barge Camp was submitted after consultation meetings held in Port McNeill, Port Hardy and Port Alice.

3.3.4 Cutting Permits

The following Cutting Permits were active in 1997:

Block	Cutting Permit No.	Location
III	301	Gilford Island
	302	Turnour Island
IV	26	Cluxewe
	401	Rupert Arm
	402	Keogh Lake
	404	Maynard
	406	Doreen Lake

3.3.5 Scaling

All production was 100% stick scaled at either Howe Sound (Block III) or Port McNeill (Block IV). Some pulp salvage material was weight scaled by the salvage truck contractor.

Block V Phillips River

Administered by
Stillwater Division



3.4 Block V (Phillips River)

Block V is located at the head of Phillips Arm and includes most of the Phillips River drainage. The total area is 48 000 ha, of which 15 000 ha is productive forestland. The major species include hemlock, balsam and cedar. The current AAC allocation for Block V of 100 000 m³ is approximately distributed as 3 680 m³ for SBFEP and 96 320 m³ for MB. Stillwater Division is responsible for the administration of Block V.

3.4.1 Annual Harvesting

Stillwater Division harvested a total of 193 143 m³ in 1997. This volume included 4 696 m³ of residue, or 2% of the total cut. Logging was done using conventional and heli-logging methods. The high rate of harvest (relative to the AAC allocation) has been a management response to recover timber in areas seriously impacted (at risk) by the current infestation of the conifer sawfly (*Neodiprion spp.*)

3.4.2 Engineering Development

Mainline road extensions were completed on the East Main in the Hoet Creek drainage. Three new bridges were built and one was removed.

3.4.3 Development Plans

Five-year Plans were approved for this Working Circle in 1997. Consultations were held in Powell River and Campbell River.

3.4.4 Cutting Permits

The following Cutting Permits were active in 1997:

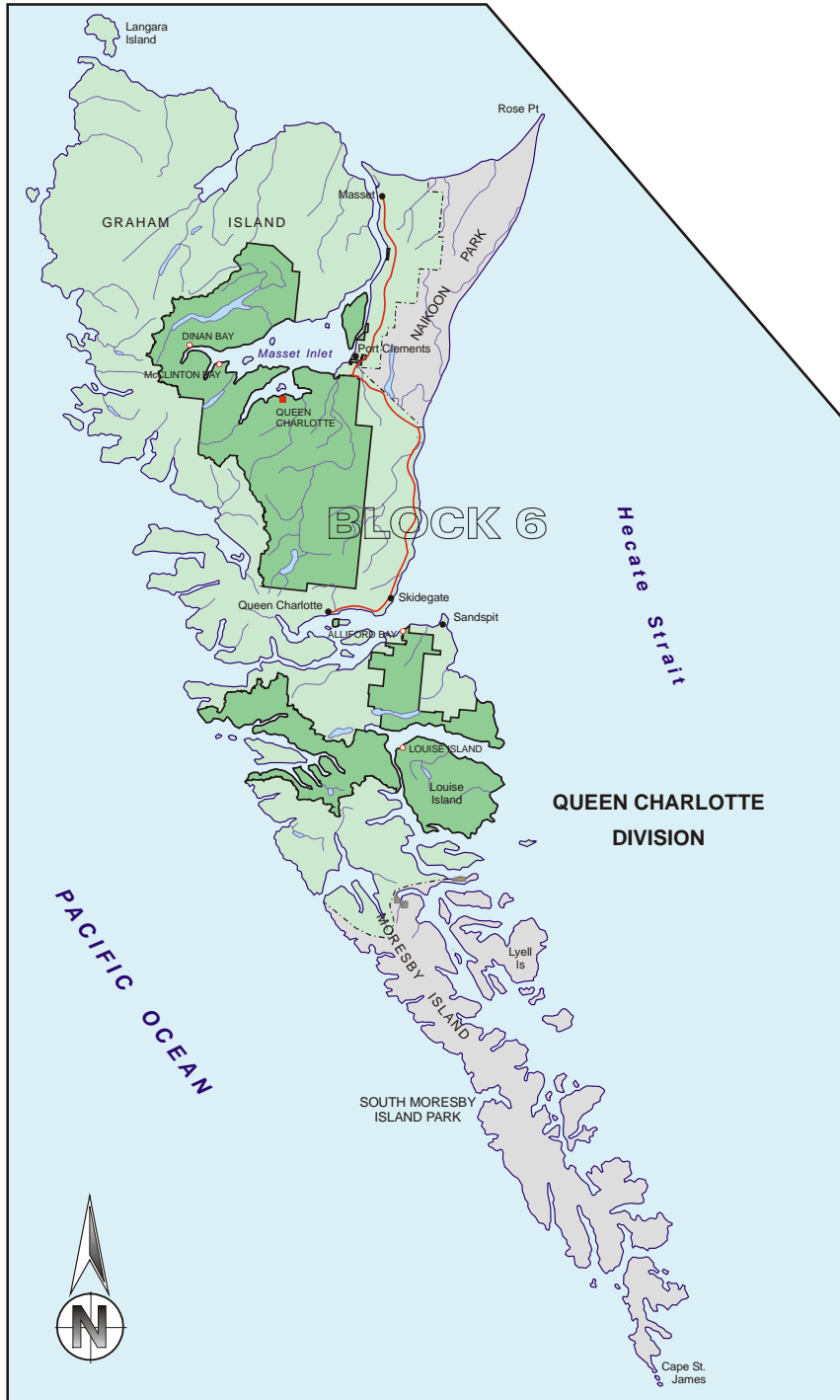
Cutting Permit No.	Location
41	Hoet Creek

3.4.5 Scaling

All production was 100% stick scaled.

Block VI Queen Charlotte Islands

Administered by
Queen Charlotte Division



3.5 Block VI (Queen Charlotte Islands)

Block VI is located in the Queen Charlotte Islands. The timberland is located on Graham Island (north and west of Masset Inlet and south in the Yakoun drainage to Queen Charlotte City) and on the north end of Moresby Island. The total area is 242 000 ha, of which 191 000 ha is classified as productive forestland. The primary species are hemlock, cedar and spruce. The current AAC allocation for Block VI of 1 210 000 m³ is approximately distributed as 56 324 m³ for SBFEP and 1 153 676 m³ for MB harvest. The Queen Charlotte Division operates in Block VI.

3.5.1 Annual Harvesting

A total of 886 640 m³ was harvested during 1997 by Queen Charlotte Division. This total included 41 839 m³ of residue, or 5% of the total cut. Conventional methods were used in all Cutting Permits, some were partially logged using helicopters. In the future, consideration will be given to using a strip shelterwood method of logging.

3.5.2 Engineering Development

Access was extended or completed for 28 km of mainline and branch roads in 12 different systems.

3.5.3 Development Plans

Five-year Plans were approved for the Ferguson–Skidegate, Louise, Alliford and West Coast areas. New plans were submitted for the Dinan–McClinton areas. Consultations were held in Masset, Old Masset, Skidegate, Port Clements and Queen Charlotte City. Watershed Restoration Project overviews were held in Port Clements and Queen Charlotte City.

3.5.4 Cutting Permits

The following Cutting Permits were active in 1997:

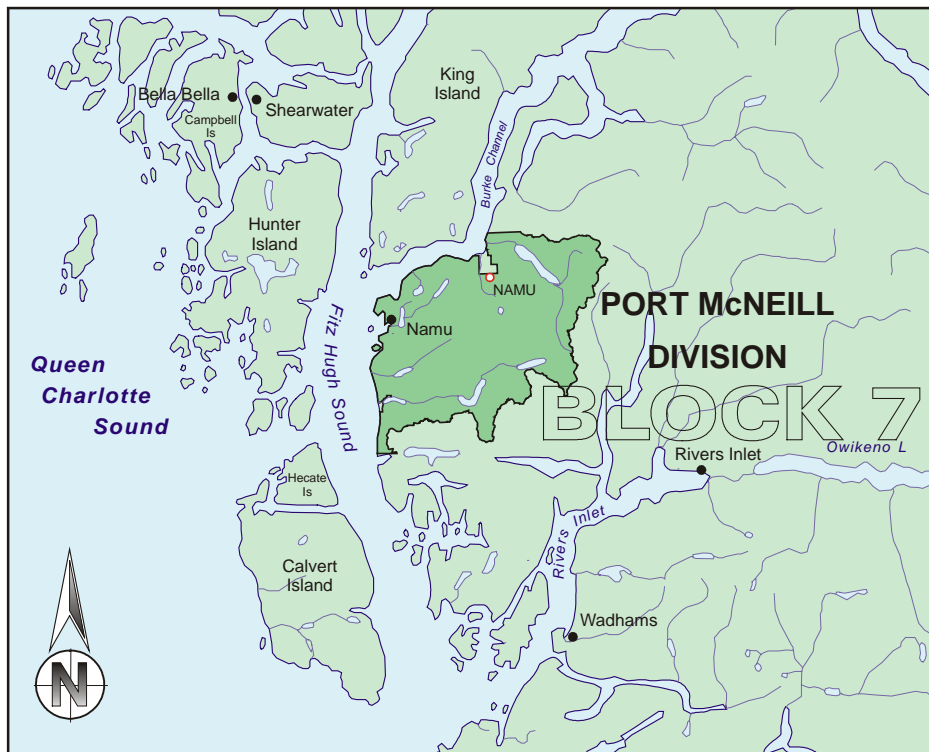
Cutting Permit No.	Location	Cutting Permit No.	Location
642	Datlamen	644, 682, 683, 696, 910, 918, 927	Ian Lake
654, 672	Mamin	657	Martin
669	Farm	697, 903, 920	Ain
670	Blackwater	630, 631, 632, 656, 698, 901, 923	Awun Lake
680	Sheila	679	Dennis
681	Blackbear	904, 673	Ira
684	Florence	608, 609	Breaker
688	Canoe	619, 901	Chadsey
689, 666	Drill	621	Mathers
691, 909	Canyon	634	Louise Narrows
693	Phantom	678	Fairburn
902, 604	Gold	616	Skedans
652	East Yakoun	695	Piper
674	Brent		

3.5.5 Scaling

Production was 100% stick scaled at the following locations: Ferguson Bay, Louise Island, Alliford Bay, Dinan Bay, and McClinton Bay.

Block VII Namu

Administered by
Port McNeill Division



3.6 Block VII (Namu)

Block VII is located on the east side of Fitz Hugh Sound and includes the major drainages: Koeye and Nootum Rivers. The total area is 56 000 ha with 30 000 ha classified as productive forestland, supporting hemlock, cedar and balsam. The current AAC allocation for Block VII of 195 000 m³ is approximately distributed as 7 214 m³ for SBFEP and 187 786 m³ for MB harvest. The Port McNeill Division is responsible for the administration of Block VII.

3.6.1 Annual Harvesting

The Division removed a total of 168 225 m³ of timber in 1997. Residue contributed 7 707 m³ or 5% to the total. All openings were logged using conventional systems.

3.6.2 Engineering Development

Road extensions along the Cold, North Cold, South Cold, Pawlick and Upper Amy mainlines were completed during 1997.

3.6.3 Development Plans

Development Plans for Doc Creek were approved in 1997 after consultations in Bella Coola and Bella Bella.

3.6.4 Cutting Permits

The following Cutting Permits were active in 1997:

Cutting Permit No.	Location
703	Doc Creek
704	Doc Creek
705	Doc Creek

3.6.5 Scaling

The production from Namu was 100% stick scaled at Doc Creek.

4.0 1997 GENERAL ACTIVITIES

The following sections describe the inventory, forest protection, silviculture and administrative activities completed during 1997.

4.1 Inventory Activities

Inventory Section of Corporate Forestry—Nanaimo is responsible for obtaining data and maintaining records pertaining to timber inventory.

4.1.1 Operational Cruising

A total of 6 006 ha of Operational Cruising were completed in 1997 to supply timber volume and grade information for 193 Cutting Permit Applications.

4.1.2 Second-Growth Inventory

In order to maintain an accurate inventory of immature stands, MacMillan Bloedel has established a program of Second-Growth Inventory. Young stands are cruised as they become stabilized, usually at about Age 31. A total of 3 192 ha were sampled in the past year.

The 5-year program of cruising 46 000 ha of older second-growth stands, not recruised since the original inventory, in Block 1 continued into the fourth year. The intent of this inventory is to upgrade the existing stand information. A total of 2 777 ha was cruised in 1997, bringing the four-year total to 30 780 ha.

4.1.3 TFL 39 Inventory Audits

The Mature timber inventory in Block I was checked by establishing random plots in two strata defined according to classification of accessibility in the 1960s inventory. Seventy-one plots were measured in the “Mature Accessible” timber. The paired t-test showed no significant difference between the recompiled volumes used in the inventory and the audit plots. The “Mature Inaccessible” timber was checked with 78 random plots. The paired t-test showed the average value in the test samples to be significantly higher than the inventory volumes. The implications of this difference will be examined in the analysis for Management Plan #8.

4.1.4 Residue Sampling

Contractors retained by the Divisions measured residue on completed settings. Inventory Section crews audit the contractors to ensure the BC Forest Service standards are met. The two contractors established 1,792 plots on 172 openings, totaling 3 834 ha.

4.1.5 Inventory Maintenance

The annual updating of the forest cover and volume data is required to maintain current information for management and harvesting decisions. Updated information includes harvesting, reforestation, silvicultural treatment, road construction and land acquisition or disposal activities. The Inventory Revisions to December 1996 were completed in 1997.

4.2 Forest Protection

Forest protection includes a wide range of activities to eliminate or minimize the effects of fire, disease and insects.

4.2.1 Forest Fires

A total of seven small fires burned a total of 0.5 ha. Lightning caused three fires and four were operational fires. The fires burned 0.1 ha each of immature and NSR stands, and 0.3 ha of mature timber (see Appendix I, Table 4).

4.2.2 Fire Control Planning/Protection

Prior to the fire season, each division prepared a pre-organization plan outlining the procedures and responsibilities for all phases of the divisional fire prevention and protection effort. Contact was maintained with operators in adjacent areas and with Small Business Forest Enterprise Program operators within the TFL to ensure coordination of prevention and suppression activities.

Roads providing fire protection access to inactive portions of the TFL were inspected prior to the onset of the fire season to ensure their usability.

4.2.3 **Slash Disposal**

All divisions used slash accumulation burning to reduce fire hazards at specified landings. A total of 101 ha of logging accumulations were burned in 1997. In addition, Port McNeill Division used a broadcast burn to reduce the hazard on 6 ha in Block IV.

4.2.4 **Fuel Management Plans**

Approved Fuel Management Plans are in place for all divisions and are reviewed periodically to ensure their validity.

4.2.5 **Fire Patrols**

Air or ground patrols are usually carried out within two hours after each shift whenever moderate fire hazard conditions exist for more than three days. During the past year, a total of 23 fire watches were flown by FIFT. In addition, 13 fire patrols were flown during periods of high fire hazard.

Additional ground fire patrols were performed during periods of extreme fire hazard.

4.2.6 **Fire Suppression Equipment**

Suppression equipment, including foam application equipment, required to meet or exceed required levels was maintained at all Divisions.

4.2.7 **Weather Stations**

Weather stations enhance the fire hazard prediction process. The following divisions are responsible for maintaining stations within their jurisdiction:

- **Stillwater:** Three stations are located in Block I—one each in the Powell/Daniels, Powell Lake and Stillwater areas. One station is located in the Phillips River in Block V.
- **Eve River:** One station is maintained in the Russell Creek area.
- **Kelsey Bay:** Kelsey Bay maintains four stations. They are located along the Moakwa 5, Compton Creek 200, Rooney Lake 121 and C800 Roads.
- **Menzies Bay:** One station is maintained by Menzies Bay and is located on the Salmon River Spur 13. Another station is located on the Salmon River Mainline Spur 6 and is maintained by the BCFS.
- **Port McNeill:** This division has weather stations in each of the Blocks managed by them. One is located in the Benson River area of Block IV and is maintained by MB. Contractors maintain the other two—one at

Gilford on North Broughton Island in Block III and one on Nootum Main (Doc Creek) in Block VII.

- **Queen Charlotte:** MB in the Queen Charlottes maintains five stations. They are located at McClinton Bay, Dinan Bay, Juskatla, Louise Island and Ghost.

4.2.8 Insects

Helicopter salvage of the Douglas-fir bark beetle infestation in the lower Powell Lake area of Block I continued in 1997. Recovery of the trap trees, placed there as a control strategy, was completed. The dead standing trees were also harvested.

Conifer sawfly (*Neodiprion* spp.) continues to be active in the Kunnum area of Eve River Division and has been detected in the C Branch, White River and Compton Creek areas of Kelsey Bay where moderate to high damage has been reported.

The management response to infestation of the conifer sawfly in Phillips River (Block V) has included harvesting to recover timber in high-risk areas. The situation is being monitored.

Blackheaded budworm has been detected in the Kunnum area of Eve River Division and appropriate action was taken. Populations of the budworm have recently increased in the Queen Charlotte Islands (Block 6 of TFL 39). Damage has occurred primarily in second-growth stands. The situation is being monitored.

The white pine weevil has been reported in the Eve and Tsitika River areas in Block II.

Evidence of the Sitka spruce weevil has been found in Block III as well as in the Benson drainage in Block IV.

4.2.9 Disease

Mistletoe in Eve River continues to be cause for concern. A 3-m knockdown program continues as the preferred means of controlling the problem.

4.3 Forest Regeneration

The initial regeneration of harvested forests includes preparation of the growing site, production of seedlings, planting and measuring the results of regeneration activities.

4.3.1 Site Preparation

The following site preparation was completed in 1997. Details of these activities by Division are listed in Appendix I, Table 5.

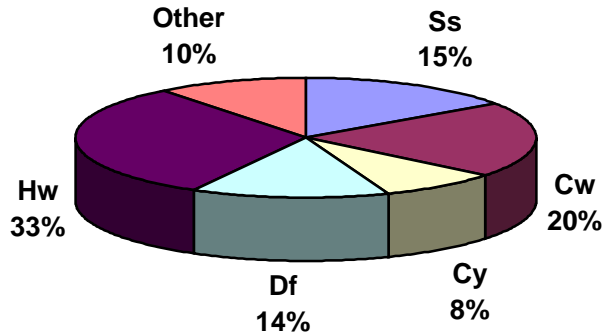
- **Burning:** All divisions used Accumulation Burns to reduce landing debris on 101 ha. In addition, Port McNeill broadcast burned 6 ha in Block IV.
- **Mechanical:** Excavators were used to prepare 144 ha for regeneration.
- **Three-Metre Knockdown:** A total of 562 ha of knockdown was completed using chain saws.

4.3.2 Artificial Reforestation

- **Tree Improvement:** The Coastal Tree Improvement Council has been replaced by an Interim Council to develop a business plan for delivery of the Provincial Tree Improvement Program through the FRBC. The plan is to set up a Forest Genetics Council and use the business plan to prioritize investment areas as a guide for FRBC investment and an arms-length company to broker seed orchard seed purchases for members. The program would cover both breeding and seed orchard operators.
- **Seed Procurement:** Cone collections from seed orchards produced 11.6 hL of cones. Wild cone collections produced 7.3 hL of cones. Details by species are listed in Appendix II, Table 1.
- **MB Seed Inventory:** The 1997 seed inventory exceeds 728 kg. Details of the species distribution are found in Appendix II, Table 2.
- **Planting Stock:** The seedling inventory held by MacMillan Bloedel at the end of 1997 was 6,808,000 trees. The sowing requests for the fall of 1997 and the spring of 1998 totaled 8,645,000 seedlings. Table 3 in Appendix II shows the details of the inventory.
- **Planting:** Planting was completed on 3 909 ha of Area Awaiting Restocking (AAR) using 3,696,000 seedlings. Fill planting was done on 569 using 400,600 trees to bring the stocking level on those areas to Management Plan standards. Appendix I, Table 6 shows the number of trees planted by Division and Appendix I, Table 7 details the hectares planted by Division and tenure.

The following graph details the percent of species planted in 1997.

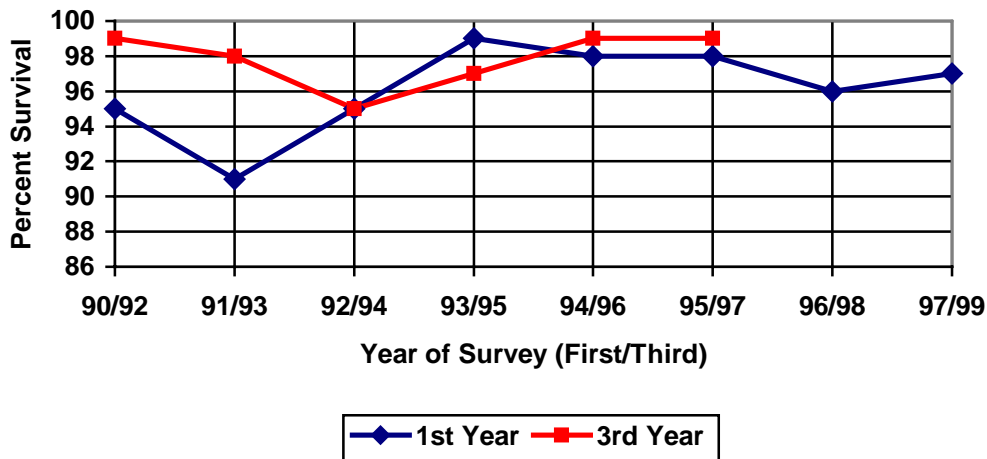
Species Planted (%)



4.3.3 Survival

Survival surveys, completed one year after planting, on 4 544 ha showed a survival rate of 96%. Three years after planting, the survival rate rose to 99% on the 6 563 ha surveyed. Individual Division details are reported in Appendix I, Table 8.

First- and Third-Year Regeneration Performance Comparison



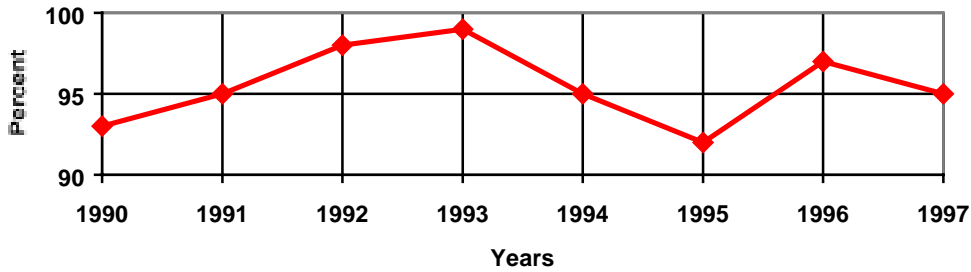
With the exception of 1995, the third-year survival has equaled or surpassed the first-year survival performance. Weather conditions are the probable cause for the lower survival rate in 1995. The third-year data does not include plantations that failed the first year.

4.3.4 Natural Regeneration

Stocking surveys were conducted on 2 997 ha and 24% were found to be stocked. After three years the naturally regenerated areas were 95% stocked,

based on a survey of 3 031 ha. Details of these surveys by Division are found in Appendix I, Table 8. Natural stand regeneration has remained above 92% since 1990.

Natural Regeneration Performance

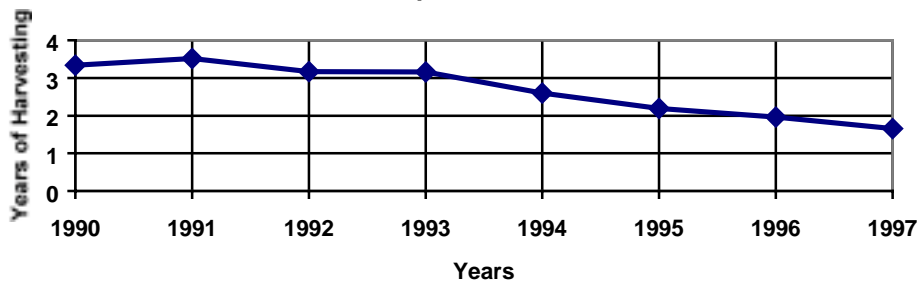


4.3.5 Areas Awaiting Restocking (AAR) Status

The inventory of Areas Awaiting Restocking in TFL 39 at the end of 1997 was 7 309 ha, 1 825 ha less than December 1996 (refer to Appendix I, Table 9 for details). There were 207 ha of regeneration failures during the year due to animal damage, poor quality seedlings, poor planting quality, and frost.

When the total annual AAR for 1997 is compared to the average area harvested over the previous ten years, it represents 1.53 years of logging. The following graph shows the trend of AAR in terms of logging history.

Equivalent AAR



4.3.6 Free-Growing Status

Appendix I, Table 13 summarizes areas that require MoF approval for free-growing status. These areas, generally, have been harvested since October 1, 1987.

During 1997, free-growing status was declared for 6 793 ha of forestland, of which 556 ha were in areas harvested since 1987.

4.4 Stand Tending

Silvicultural activities continue after reforestation. Several projects were completed in 1997; the details by Division are shown in Appendix I, Table 10.

4.4.1 Brushing and Weeding

Brushing and weeding projects were completed on 1 618 ha. Methods of treatment included chainsaws, girdling, ground and aerial spray.

4.4.2 Juvenile Spacing

All Divisions completed juvenile spacing work. A total of 1 327 ha were treated using chainsaws.

4.4.3 Fertilizing

A total of 4 370 ha were fertilized during the year. All Divisions except Kelsey Bay did some fertilization at time of planting, 2 648 ha in total. Stillwater and Port McNeill Divisions did some aerial spraying and Port McNeill and Queen Charlotte Division also did some post-planting hand fertilizing. These projects covered a total of 1 722 ha.

During 1997, free-growing status was declared for 6 793 ha of forestland. MoF approval will be required on 556 ha of this area.

4.4.4 Pruning

Three Divisions completed pruning projects in 1997. Stillwater pruned trees on 14 ha, Menzies Bay completed a four-hectare project and Queen Charlotte Division pruned trees on 96 ha. Handsaws and clippers were the tools of choice.

4.4.5 Erosion Control

All Divisions were involved with erosion control, treating a total of 249 ha. The details of ha treated by Division are found in Appendix I, Table 11. Roadsides and slide areas were treated either by hydroseeding or dry seeding. Port McNeill did some work on stream banks in Block IV.

4.4.6 Hardwood Logging

The logging of hardwood stands in preparation for conversion to conifers continued in Block I. The area of converted stands over the last five years is shown below.

Year	1993 (ha)	1994 (ha)	1995 (ha)	1996 (ha)	1997 (ha)
Stands classed as hardwood in Forest Inventory	43	42	48	28	33
Stands classed as conifer in Forest Inventory but included within areas logged	11	16	—	—	—
Total	54	58	48	28	33

4.5 Assessments

4.5.1 Silvicultural Assessments

The results of various types of silvicultural assessments are used for planning future activities, monitoring the success of treatments, and to maintain up-to-date forest management records. Appendix I, Table 12 details the 29 074 ha surveyed for various assessments in 1997.

4.5.2 Silvicultural and Land Use Audits

Audits allow MacMillan Bloedel to evaluate performance compared to standards in a number of land use and forestry disciplines. Qualified personnel conduct these audits and the results are discussed with appropriate divisional staff.

4.6 Funding Credits

Funding credits received by MacMillan Bloedel in 1997 totaled \$5,326,515. Industry Outstanding funds were used for brushing and weeding, planting, assessments and recreation site maintenance. FRBC funds were used for silvicultural activities, recreation, watershed restoration and surveys. Details of Division funding are found in Appendix I, Table 14.

4.7 Public Involvement

A number of communities are within or adjacent to the licence. Many of the residents are directly or indirectly dependent on the forest.

Public interest in resource management planning has increased the need for review of development and management plans by the general public.

4.7.1 Employment and Economic Opportunities

MB continues to support local employment. The main strategy for achieving continuing employment is to ensure that the company operations are competitive in the global market place. The current (1997, 1998) comprehensive review and restructuring efforts are focussed on returning the company to a competitive position.

In late 1997, MB and FRBC commenced negotiating a multi-year agreement for funding silvicultural, watershed restoration, inventory and other management activities in TFL 39 and TFL 44.

Participation of First Nations in the workforce has increased substantially during recent years. Most of the gains have been in silviculture, particularly in enhanced forestry work, funded by FRBC. In Block 6 (Queen Charlotte Islands), Haida and MB have been partners in FRBC projects on watershed restoration, enhanced forestry and inventory work. Similarly in Block 1 (Powell River), the Sliammon Band and MB have cooperated on the Theodosia Watershed restoration project.

4.7.2 Development Plans

Development Plans, prepared by the Divisions, were reviewed at public open houses held in Sayward, Campbell River, several communities in the Queen Charlottes, Port McNeill, Port Hardy, Port Alice, Bella Coola, Bella Bella, and several Divisional offices. Divisional activity is reported in Section 3.

4.8 Operational Research

Operational research is carried out in several of MacMillan Bloedel's divisions and managed forests. Results can be applicable to TFL 39 when species, site index, terrain and biological conditions are considered.

4.8.1 Forest Renewal

Forest Renewal research in the Montane Alternative Silvicultural Systems (MASS) project focuses on performance of Douglas-fir, hemlock and western redcedar in various silvicultural systems in higher elevations forests. Activities/results during 1997 included:

- A seedling experiment with two species (amabilis fir and western hemlock) and four treatments (fertilization, vegetation control, both and none) was established in 1996 on all five silvicultural settings (clearcutting, green tree retention, shelterwood and patch cutting). Preliminary results indicate the most significant single growth factor during the first four growing seasons is nitrogen nutrition. All seedlings had significantly higher first season growth with fertilization than with any other treatment. Excavations of whole trees and subsequent biomass allocation assessments were completed in 1997 to determine if the pattern of biomass allocation was different than the height and volume growth performance. The tests showed the total biomass allocation essentially matched the height and volume growth responses.
- Seedling growth has not been significantly different on the various silvicultural system settings, except the extremely slow growth in the old-growth control area. This is consistent with the collected microclimate evidence that indicated more similarity in temperature and light regimes than was expected.

4.8.2 Ecology

The forest ecology program in MacMillan Bloedel addresses issues pertaining to sustainable management of forest ecosystems. Its main project areas are silvicultural systems, site productivity, and ecosystem classification and mapping.

- **Montane Alternative Silvicultural Systems (MASS)**

Ecology research continued on the Montane Alternative Silvicultural Systems (MASS) project. This project is designed to study the biological and economic consequences of various silvicultural systems in higher elevation forests. The systems being studied include clearcutting, green tree retention retention, shelterwood and patch cutting. Harvesting was completed in 1993; post-harvest monitoring continued through 1997. MB studies included: regeneration, growth and yield, microclimate, hydrology, forest bird diversity and vegetation succession. Nearly 75 people visited the site in 1997, bringing the total number of visitors to almost 800. In addition, another 2,000 people around the world have participated in seminars given by the researchers. Activities in 1997 include:

- Windthrow monitoring: Windthrow is present in all of the cutblocks, but has varied between treatments. After four years, green tree retention has lost an average of 7.9 sph; patch cut—5.2 sph; shelterwood—18.7 sph and clearcut—8.5 sph due to windthrow. The greatest windthrow losses were in the intermediate crown class. Western redcedar appears to be more windfirm than either amabilis fir or western hemlock.
- Conifer seedfall and regeneration: Seedfall traps were sampled in May, August and November. The number of seeds collected was greatest in the first season, dropped off significantly in the second season, but rebounded in the last two seasons. Partial cutting seems to have stimulated the seed production as the greatest amount of seed has been collected from the shelterwood areas in the last two years. Low numbers of seeds reached the center of the 69 ha clearcut; however, natural stocking through advanced regeneration and seedlings has been adequate in most areas. Stocking in the partially cut stands is typically high.
- Natural Vegetation: The cover, frequency and number of species of understory plants decreased after all harvesting treatments. Three years after treatment the cover increased in the harvested areas primarily due to herbaceous colonizers. The shelterwood areas retained the greatest diversity of understory trees, shrubs and bryophytes compared to other systems.
- Bird Diversity: Pre-harvest breeding bird communities were dominated by a few abundant species. Of the 26 species detected, 10 species accounted for 96% of the population. Three years after harvest only 17 species were recorded during winter surveys with two species totaling 68% of the population. Few species were completely

lost or added to the population. The vast majority (85%) of the winter resident birds was concentrated in the old growth and unlogged portions of patch cutblocks. Retention of relatively intact old-growth forest patches appears to be a more useful strategy for conservation of some plant and bird species and in maintaining stand structural elements than uniform distribution of leave trees. This approach also appears to have cost, wind-firmness and safety advantages.

- **Salal-Cedar-Hemlock Integrated Research Program (SCHIRP)**

MB has participated in a multi-agency cooperative Salal-Cedar-Hemlock Integrated Research Program (SCHIRP) since 1986. A field guide to site identification and treatment was published in 1996. In March 1996 a replicate trial was established near Ucluelet to test optimum combinations of species, fertilization, mechanical site preparation and planting density. The new trial will expand the usefulness of the SCHIRP results to a wider range of sites.

After two growing seasons at the Ucluelet site, western redcedar survival ranged from 95% to 98% while western hemlock ranged from 70% to 83%. Site preparation alone did not produce increased seedling height or stem volume. Fertilization significantly increased second-year height growth and stem volume of both species. Combining treatments increased stem volume over the treatment of fertilizer alone. When using fertilizer, 'tea-bags' or applying fertilizer 10 cm deep produced the best results.

- **Ecosystems 2000**

The objective of this project is to map the ecosystems (site series) of all MacMillan Bloedel tenures at a scale of 1:20 000. This inventory will be an important component of landscape-level planning. Field work has been completed in Blocks 5 and 7, in the upper White, Adam, Eve and Tsitika watersheds in Block 2 and in the Haans, Chadsey, Louise Island, Yakoun, Tlell, Peel-Security, Mamin-Blackwater and Dinan-McClinton areas in Block 6. This data is at various stages of conversion to digital products. During 1998 field work is planned in the Lois Lake area of Block 1 and in the Salmon-lower White watersheds in Block 2. The project is expected to be complete in 2002.

4.8.3 Growth and Yield

MacMillan Bloedel maintains an inventory of permanent sample plots in mature and second-growth stands to evaluate long-term growth trends. These sample plots are periodically remeasured. Company wide a total of 129 Second-Growth plots, 73 Planting Assessment Plots, 22 Sustained Yield Plots, 129 Spacing Assessment Plots and 54 Nutrition plots were measured. Specifically, in TFL 39 29 Second-Growth plots, 85 Spacing Assessment and 16 Nutrition plots were measured.

4.9 Integrated Resource Management

MacMillan Bloedel is actively engaged in managing the forest resources within the TFL. This occurs in accordance with the Forest Practices Act (FPC) and Regulations and as directed by FPC Guidebooks. This involvement includes maintaining information (inventories) on a number of non-timber forest values. These inventories are updated on a regular basis. It also includes research as well as specific management actions. The following summarizes activities in 1997.

4.9.1 Recreation/Landscape

MacMillan Bloedel has built and maintains a number of campsites throughout TFL 39. The following activities were reported for 1997.

- **Eve River:** A new site was constructed on Montague Creek. A total of eight sites were enhanced at the Junction Pool (6) and the Tsitika Crossing (2) locations. One site was closed at a dryland sort as it was too close to an industrial site.
- **Queen Charlotte:** QC Division maintains twenty-two sites with funds from the Ministry of Forests. These sites are located at Gray Bay (15) and Papa Johns (7).
- **Port McNeill:** The campsites maintained by Port McNeill are all located in Block IV. They include locations at Rupert Arm (2), Keogh Lake (8), Alice Lake (12), Dinch Creek (4), and Kathleen Lake (4).
- **Stillwater:** Campsites in this Division are located on some of the many lakes found in the area. The Powell Lake Canoe Route has a total of 17 sites and one site is located at each of Tony and Lewis Lakes. All of these sites were maintained in 1997.

Recreation and landscape inventories were completed for Blocks I and VI and the data entered into the MB mapping system. A contractor started to update this type of information for the other Blocks. This job will continue into 1998.

4.9.2 Wildlife

Wildlife management focused on assessment and protection of important habitat. Ongoing adjustments were completed to the wildlife inventories in conjunction with agency staff during the development plan process. These adjustments included deer winter ranges, elk summer ranges, and grizzly and goat habitat.

4.9.3 Fisheries

Analysis and overview reports for Grilse Creek and Tsitika River in Block II were contracted out and supervised by MacMillan Bloedel. Instream restoration work was done on the Yakoun River in Block VI. Reconstruction work was done on a section of Crabapple Creek, also in Block VI.

4.9.4 Water

Watershed assessments, carried out according to the Coastal Watershed Assessment Procedure were done on the following drainages:

- **Block I:** My, Scanlon, Silver, Upper Powell and Whittal.
- **Block II:** Eve, Palmerston, Tsitika, Catherine, Adam, Compton, Elk, Kim, Lower and Upper Memekay, Newcastle, White and Rooney and Grilse.
- **Block V:** Phillips.
- **Block VI:** Copper, Datlamen, Ira, Mamin, Mathers, Skedans and Waste.

Assistance was provided for surface water quality assessments of leachate with wood waste landfill sites in Queen Charlotte and Port McNeill Divisions. Assistance was also given to Queen Charlotte Division in the evaluation of proposals for the closure of the Skidegate landfill.

4.9.5 Soils

Terrain stability inventory of Block II was completed in the lower part of the Eve River drainage. Fieldwork for terrain mapping in Block VII was completed and the information was submitted to GIS for data entry. In addition, terrain stability assessments of hillside slopes and gullies for proposed roads and harvesting areas were performed in a number of divisions.

Work for various divisions included:

- Landslide investigations,
- Geotechnical assessments of problem areas on existing roads,
- Hydrotechnical assessments of floodplains, logged and unlogged stream channel fluvial geomorphology,
- Surface erosion potential for proposed harvesting areas, and
- Windthrow assessments.

A Woodlands Waste Management Standard was developed in 1997. Requirements for the storage and disposal of various waste materials are outlined and new “best management practices” are proposed for implementation in 1998 at all Divisions to reduce short- and long-term environmental risks from landfills, dryland sorts, debris burn sites, shops and camps.

4.9.6 Biological Diversity

The biodiversity model developed by UBC’s Institute for Applied Conservation Biology was incorporated into the GIS system in 1995. Calibration of the model for coastal conditions using Permanent Sample Plot data is complete. A

contractor has assisted in developing natural disturbance module for the model that includes both wind and fire as disturbance elements. Partial harvesting and natural disturbance factors have been incorporated in the model and will be tested in 1998.

4.9.7 Cultural Heritage

The emphasis has been on identifying sites of potential interest by reviewing operational plans with First Nations Groups and by retaining field staff that are trained to recognize cultural heritage sites. Where necessary, specialists are hired to ground truth sites. In Block 6 (Queen Charlotte Islands) First Nations members are employed and trained to assist with this process.

As needed, prescriptions are developed for cultural heritage sites in conjunction with specialists including MoF staff.

4.10 Administration

The administration activities necessary to operate the TFL in 1997 are described in the following sections.

4.10.1 TFL 39 Amendments

There were no amendments made to the TFL 39 Agreement in 1997.

4.10.2 Property Additions/Deletions

There were no property additions or deletions in 1997.

4.10.3 Managed Forest 21 “Haida Tree Farm”

The “Haida Tree Farm”, which comprises all the land privately owned by MB included in the TFL, is managed as an integral part of the Licence and to the same standards. The total area for the Tree Farm is 17 597 ha.

4.10.4 Annual Allowable Cut

The AAC for TFL 39, as approved by the BC Forest Service in a letter dated June 27, 1996, is 3 740 000 m³ for the period July 1, 1997 to July 1, 2001. This volume includes the SBFEP portion of the AAC, which totals 162 218 m³. The total licensee AAC for MacMillan Bloedel is 3 577 782 m³.

4.10.5 Regional and Landscape Planning

Major initiatives continue on the development of boundaries and management objectives for landscape units. These are largely in draft form and await formal recognition before being implemented.

The Vancouver Island Land Use Plan has resulted in the establishment of a protected area in the Tsitika Watershed and in the definition of Special

Management Zones (SMZs formerly referred to as Low Intensity Areas) in parts of the Tsitika and White Watersheds and adjacent to Johnstone Strait.

SMZs are areas for which conservation of one or more resource values, such as habitat, recreation, scenery and community watersheds is a priority. The management emphases (objectives) have been defined for each SMZ. The special requirements for SMZs are being built into Forest Development Plans as information becomes available and decisions are reached by the agencies involved.

The Vancouver Island Resource Targets Technical Team submitted their final report in November of 1997. The report recommends locations and management objectives and strategies for Enhanced Development Zones and General Management Zones (previously referred to as High Intensity Areas and General Forestry Areas). This report has yet to be approved by Government.

The MoF and MoELP have developed a Regional Landscape Unit Planning Strategy. This initiative has defined draft landscape unit boundaries and assigned biodiversity emphases to these units. These plans have yet to be approved. Further developments regarding landscape unit planning are expected in 1998.

MB is participating in the Central Coast Land and Resource Management Plan (LRMP) process. The Central Coast planning area includes Blocks 3 (Coast Islands), 5 (Phillips River) and 7 (Namu) of TFL 39. Roding and harvesting in the Koeve Watershed of Block 7 has been deferred since 1991 due to study area status, first as an old-growth deferral area and latter as a Protected Area Strategy Study area.

MB continued to be involved in discussions regarding the Tlell Local Resource Use Plan (partly within Block 6 of TFL 39).

MB is continuing to develop its capabilities for landscape reporting to assist with the landscape planning process.

4.10.6 Management Plan Process

Management Plan #7 was approved in June of 1996. The thirty-month process for developing Management Plan #8 to achieve approval by December 31, 2000 will begin in mid-1998.

4.10.7 TFL Annual Report

The Annual Report for the activities in TFL 39 during 1996 was submitted in June, 1997.

APPENDIX I - Table 1

TFL 39 Volume Harvested in 1997
Based on Cut Control Letter Issued by Vancouver Forest Region
Volumes (m³)

Block	Division	Tenure	Ha	Fir	Pine	Cedar	Cypress	Spruce	Hemlock	Balsam	Decid	Total Billed	Residue	Total Cut Control	
I	Stillwater	Private		623		20			124		53	820		820	
		TL	4	123		2 945	83		969	644	1	4 765		4 765	
		Crown	343	174 375	220	77 273	10 127	36	83 879	7 430	10 661	364 001	15 721	379 722	
		Total	347	175 121	220	80 238	10 210	36	84 972	8 074	10 715	369 586	15 721	385 307	
II	Eve River	Private		184	46	9 047	4 463	78	50 983	21 065	18	85 884	1 287	87 171	
		TL	105	62	86	26 080	18 067	56	91 582	64 740	68	200 741	11 691	212 432	
		Crown	216	246	132	35 127	22 530	134	142 565	85 805	86	286 625	12 978	299 603	
	Kelsey Bay	Private		31		1 169	357		1 454	1 109		4 120		4 120	
		TL	171	404	35	23 705	5 582	40	44 543	32 085	44	106 438	8 972	115 410	
		Crown	330	5 962	69	16 536	25 792	524	124 238	103 811	172	277 104	9 332	286 436	
	Menzies Bay	Private		837	11	9 831	4 803		5	14 611	12 016	17	42 131	2 059	44 190
		TL	239	13 316	75	28 830	7 877	31	79 985	42 289	464	172 867	9 499	182 366	
		Crown	262	14 153	86	38 661	12 680	36	94 596	54 305	481	214 998	11 558	226 556	
	Total	Private		31		1 169	357		1 454	1 109		4 120		4 120	
		TL	299	1 425	92	42 583	14 848	123	110 137	65 166	79	234 453	12 318	246 771	
		Crown	785	19 340	230	71 446	51 736	611	295 805	210 840	704	650 712	30 522	681 234	
		Total	1 084	20 796	322	115 198	66 941	734	407 396	277 115	783	889 285	42 840	932 125	
	III	Port McNeill	Private		153	24	10 027	39	447	17 099	2 883	5	30 677	1 634	32 311
			TL	13	795	5	421		3 630	43 503	1 337	43	49 734	783	50 517
			Crown	62	948	29	10 448	39	4 077	60 602	4 220	48	80 411	2 417	82 828
IV	Port McNeill	Private				173		129	7 228	535	48	8 113		8 113	
		TL	22	998		12 017	94	823	19 437	6 941	117	40 427	1 304	41 731	
		Crown	44	434	18	38 504	19 933	3 921	110 349	35 965	369	209 493	12 058	221 551	
V	Stillwater	Private													
		TL		921		23 250	2 342	2 676	72 883	86 312	63	188 447	4 696	193 143	
		Crown	192	921		23 250	2 342	2 676	72 883	86 312	63	188 447	4 696	193 143	
VI	QCD	Private				9 173	13 253	2 202	16 677			41 305	4 510	45 815	
		TL	60		1 095	14 078	6 449	2 496	6 090			30 208	843	31 051	
		Crown	70		8 114	300 181	63 519	82 193	319 271		10	773 288	36 486	809 774	
		Total	1 190		9 209	323 432	83 221	86 891	342 038		10	844 801	41 839	886 640	
VII	Port McNeill	Private													
		TL													
		Crown	181	2	32	36 804	18 818	18 092	48 506	38 178	86	160 518	7 707	168 225	
ALL	ALL	Private		654		10 535	13 610	2 331	25 483	1 644	101	54 358	4 510	58 868	
		TL	430	2 699	1 211	81 650	21 513	3 889	153 732	75 634	202	340 530	16 099	356 629	
		Crown	3 032	195 867	8 619	547 879	166 475	111 159	974 196	380 062	11 936	2 396 193	107 973	2 504 166	
		Total	3 544	199 220	9 830	640 064	201 598	117 379	1 153 411	457 340	12 239	2 791 081	128 582	2 919 663	

Appendix 1 - Table 1a

TFL 39 Production by Harvesting Profile and System - 1997

As Reported by the Woodlands Divisions⁽¹⁾

Excludes Residue

Harvesting System	Harvest Profile ⁽²⁾													
	Conventional				Non-conventional				Total				Grand Total	
	Economical		Marg. Economical		Economical		Marg. Economical		Economical		Marg. Economical		Volume	ha
	Volume	ha	Volume	ha	Volume	ha	Volume	ha	Volume	ha	Volume	ha		
First Growth														
Clearcut	1 121 543	1 595	24 156	51	125 311	156	9 517	15	1 246 854	1 751	33 673	66	1 280 527	1 817
Clearcut with reserves	915 642	1 109	198		105 828	126			1 021 470	1 235	198		1 021 668	1 235
Seed Tree	4 889	30	161	1					4 889	30	161	1	5 050	31
Shelterwood	19 762	28							19 762	28			19 762	28
Shelterwood with reserves	22 044	19							22 044	19			22 044	19
Total	2 083 880	2 781	24 515	52	231 139	282	9 517	15	2 315 019	3 063	34 032	67	2 349 051	3 130
Second Growth														
Clearcut	56 422	63							56 422	63			56 422	63
Clearcut with reserves	276 865	309							276 865	309			276 865	309
Shelterwood with reserves	20 367	18							20 367	18			20 367	18
Stand Rehab/Improvement					17 193	24			17 193	24			17 193	24
Total	353 654	390			17 193	24			370 847	414			370 847	414
Grand Total	2 437 534	3 171	24 515	52	248 332	306	9 517	15	2 685 866	3 477	34 032	67	2 719 898	3 544

⁽¹⁾ Volume data (m³) based on Divisional records and may not agree with official BCFS billed volumes due to differing year-end dates.

⁽²⁾ Conventional, Non-conventional and Marg-economic categories are based on inventory classification and not actual harvest method.

Appendix I - Table 1b

TFL 39 Volume Harvested by Operability Class - 1997

As Reported by the Woodlands Divisions ⁽¹⁾

Excludes Residue

Volumes (m³)

Block	First Growth			Second Growth		Total
	Conventional	Non-conventional	Marg. Economic	Conventional	Non-conventional	
I	109 941	9 556		171 542	17 193	308 232
II	758 525	78 699		29 040		866 264
III, IV	243 340	29 567		118 602		391 509
V	103 473	67 106				170 579
VI	705 453	46 211	34 032	34 470		820 166
VII	163 148					163 148
Total	2 083 880	231 139	34 032	353 654	17 193	2 719 898

⁽¹⁾ Volume data (m³) based on Divisional records and may not agree with official BCFS billed volumes due to differing year-end dates.

⁽²⁾ Conventional, Non-conventional and Marg. Economic categories are based on inventory classification and not actual harvest method.

APPENDIX I - Table 2

TFL 39 SBFEP Timber Harvested - 1997
Based on Billing from Vancouver Forest Region
Volume (m³)

BCFS District	Timber Sale	Billed Volume
Port McNeill	A39536	12 842
QCD	A43696	42 675
	A53007	105 337
Total		160 854

Note: Billed Volume excludes residue.

APPENDIX I- Table 3

TFL 39 Road Construction Report - 1997

Block	Division	New Construction (km)			Debuilt Road (1) (km)	
		Mainline Branch	Spur	Other		
I	Stillwater	6.2	27.7		0.5	
II	Eve	0.9	20.5		0.3	
	Kelsey Bay	33.1	14.1			
	Menzies Bay	15.1	8.3			
	Total	49.1	42.9		0.3	
III	Pt McNeill	12.0	14.9		1.8	
IV	Pt McNeill	4.1	20.0			
V	Stillwater	1.8	5.5			
VI	QCD	28.8	90.8			
VII	Pt McNeill	8.0	8.7			
Total		110.0	210.5			2.6

- (1) Debuilt roads are defined as those in which the road structure has been rehabilitated as close to the original land profile as is feasible and, where practicable, restored to forest growing production.

APPENDIX I - Table 4

TFL 39 Fire Report - 1997

Block	Division	Number and Causes of Fires									
		Lightning		Escape Slash		Operational		Public		Total	
		No.	Ha	No.	Ha	No.	Ha	No.	Ha	No.	Ha
I	Stillwater	1	Spot							1	Spot
II	Kelsey Bay					2	Spot			2	Spot
III	Port McNeill	1	0.1							1	0.1
IV	Port McNeill	1	0.1							1	0.1
VI	QCD					2	0.3			2	0.3
Total		3	0.2			4	0.3			7	0.5

Block	Division	Area Burned by Forest Fires (ha)				
		Mature	Immature	AAR	NSR	Total
I	Stillwater					Spot
II	Menzies Bay					Spot
III	Port McNeill				0.1	0.1
IV	Port McNeill	0.1				0.1
VI	QCD	0.2	0.1			0.3
Total		0.3	0.1		0.1	0.5

APPENDIX I - Table 5

TFL 39 Site Preparation - 1997
(Hectares)

Block	Division	Tenure	Broadcast Burn	Burn Accum. ⁽¹⁾	Mechanical	Brush/ Grass Control	Three Metre Knockdown	Alder Seed Tree Control	Drainage Restore	Total Hectares	
I	Stillwater	Private Crown		10						10	
		Total		10						10	
II	Eve River	Private Crown		7	7		326			340	
		Total		7	7		326			340	
	Kelsey Bay	Private Crown		33	70					103	
		Total		33	70					103	
	Menzies Bay	Private Crown		16	59					75	
		Total		16	59					75	
	Total	Private Crown		56	136		326			518	
		Total		56	136		326			518	
	III	Port McNeill	Private Crown		9						9
			Total		9						9
IV	Port McNeill	Private Crown	6	14	8					28	
		Total	6	14	8					28	
V	Stillwater	Private Crown									
		Total									
VI	QC	Private Crown					236			236	
		Total					236			236	
VII	Port McNeill	Private Crown		12						12	
		Total		12						12	
All Blocks		Private Crown	6	101	144		562			813	
		Total	6	101	144		562			813	

⁽¹⁾ Actual hectares of roadside accumulations burned.

APPENDIX I - Table 6

TFL 39 Summary of Planting - 1997
(000s of trees)

		Woodlands Operation										
		Bk I	Bk II				Bk III	Bk IV	Bk V	Bk VI	Bk VII	Grand
Type of Planting	Species	Stillwater	Eve	Kelsey	Menzies	Total	McNeill	McNeill	Stillwater	QCD	McNeill	Total
		No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)	No. Trees (000s)
Normal	Ax		0.5			0.5						0.5
	Ba	7.1	38.5	78.7		117.2		84.6	7.8		5.8	222.5
	Bg	2.7										2.7
	Bn						6.2	2.2				8.4
	Cw	63.2	69.4	12.7	14.8	96.9	93.6	85.5	57.1	344.5	26.9	767.7
	Cy	40.5	48.7	40.1	58.4	147.2		55.2		51.9	15.1	309.9
	Df	227.1	34.6	54.5	132.8	221.9	14.9	19.8	1.4			485.1
	Dr		0.7			0.7						0.7
	Ds								0.8			0.8
	Hm	4.3										4.3
	Hw	12.9	52.7	343.1	106.1	501.9	39.2	88.4	41.9	434.1	32.0	1 150.4
	Pl		1.4	0.1		1.5				32.3	0.5	34.3
	Pw											
	Ss		2.4			2.4	2.4	15.3		589.2	22.0	631.3
	Sx	0.3	2.0			2.0						2.3
Ct	75.1										75.1	
	Total	433.2	250.9	529.2	312.1	1 092.2	156.3	351.8	108.2	1 452.0	102.3	3 696.0
	Ba	6.9	0.3	3.7		4.0			3.2			14.1
	Bg	2.9										2.9
	Cw	26.8	1.1	2.6	3.9	7.6			14.0	20.0		68.4
	Cy	2.4		9.6	12.6	22.2				5.0		29.6
	Df	30.8	2.3	5.2	42.5	50.0			2.0			82.8
	Hm			5.0		5.0						5.0
	Hw	1.0	2.7	71.7	19.4	93.8			6.5	40.0		141.3
	Pl			5.7		5.7						5.7
	Pw									50.4		50.4
	Se				0.1	0.1						0.1
Ct	0.3										0.3	
	Total	71.1	6.4	103.5	78.5	188.4			25.7	115.4		400.6

Appendix I - Table 7

TFL 39 Hectares Planted - 1997
(hectares)

Block	Division	Tenure	Normal	Fill	Total Hectares	Plant + Fertilize
I	Stillwater	Private	12	15	27	
		Crown	367	99	466	77
		Total	379	114	493	77
II	Eve River	Private				
		Crown	232	9	241	119
		Total	232	9	241	119
	Kelsey Bay	Private				
		Crown	589	157	746	
		Total	589	157	746	
	Menzies Bay	Private				
		Crown	257	84	341	337
		Total	257	84	341	337
	Total	Private				
Crown		1 078	250	1 328	456	
Total		1 078	250	1 328	456	
III	Port McNeill	Private				
		Crown	197		197	108
		Total	197		197	108
IV	Port McNeill	Private				
		Crown	360		360	34
		Total	360		360	34
V	Stillwater	Private				
		Crown	90	36	126	32
		Total	90	36	126	32
VI	QCD	Private	67		67	104
		Crown	1 628	169	1 797	1 729
		Total	1 695	169	1 864	1 833
VII	Port McNeill	Private				
		Crown	110		110	108
		Total	110		110	108
All	Total	Private	79	15	94	104
		Crown	3 830	554	4 384	2 544
		Total	3 909	569	4 478	2 648

Note: Planted and Fertilize hectares included in hectares planted.

APPENDIX I - Table 8

TFL 39 Plantation Survival And Regeneration Performance Report - 1997

Block	Division	Natural			Plantation		
		Examined (ha)	Stocked (ha)	Percent Stocked	Examined (ha)	Successful (ha)	Percent Successful
		Stocking Survey			Survival Survey (First Year)		
I	Stillwater	37	26	70	505	486	96
II	Eve	481	127	26	319	315	99
	Kelsey Bay	1 343	213	16	1 048	1 013	97
	Menzies Bay	140			976	959	98
	Total	1 964	340	17	2 343	2 287	98
III	Pt McNeill				77	77	100
IV	Pt McNeill				267	265	99
V	Stillwater	25	3	12	97	97	100
VI	QC	971	343	35	1 235	1 197	97
VII	Pt McNeill				303	242	80
Total		2 997	712	24	4 827	4 651	96

		Regeneration Performance (Third Year)			Regeneration Performance (Third Year)		
I	Stillwater	836	836	100	1 388	1 388	100
II	Eve	297	295	99			
	Kelsey Bay	1 555	1 518	98	2 759	2 739	99
	Menzies Bay	40	40	100	687	680	99
	Total	1 892	1 853	98	3 446	3 419	99
III	Pt McNeill						
IV	Pt McNeill	191	115	60	281	277	99
V	Stillwater				452	452	100
VI	QC				665	658	99
VII	Pt McNeill	112	81	72	331	293	89
Total		3 031	2 885	95	6 563	6 487	99

APPENDIX I - Table 9

TFL 39 Restocking Statement to December 31, 1997
(Hectares)

Reconciliation of Denuded Lands ⁽¹⁾	Backlog ⁽²⁾	MP# 1-5 1962-87	MP #6 1988-95	MP #7			Grand Total
				1996	1997	Total	

DENUDEATION HISTORY

- Logging	37 320	102 974	36 564	3 828	3 157	6 985	183 843
- Fire		2 203					2 203
- Other ⁽³⁾	50	4 674					4 724
Total Denuded	37 370	109 851	36 564	3 828	3 157	6 985	190 770

RESTOCKING RECONCILIATION

- Total at previous year end		25	5 669	3 440		3 440	9 134
- Add total denuded current year					3 157	3 157	3 157
- Regeneration failures		3	180	23	1	24	207
- Adjustments ⁽⁴⁾		9	- 117	- 21	- 229	- 250	- 358
Total AAR for Reclassification		37	5 732	3 442	2 929	6 371	12 140

RESTOCKING CLASSIFICATION FOR 1997

-Non-productive⁽⁵⁾		4	6	6	177	183	193
- Stocked ⁽⁶⁾							
. Planted or seeded		22	2 617	1 153	117	1 270	3 909
. Natural		9	583	115	22	137	729
Total stocked		31	3 200	1 268	139	1 407	4 638
Total Awaiting Restocking		2	2 526	2 168	2 613	4 781	7 309
Total Classified During 1997		37	5 732	3 442	2 929	6 371	12 140
AAR as of December 31, 1997		2	2 526	2 168	2 613	4 781	7 309
Net Change from 1996		- 23	- 3 143	- 1 272	2 613	1 341	- 1 825

(1) TFL 7 data to 1987 was sorted to match TFL 39 time periods and added to the appropriate TFL 39 MP

(2) Logged or unstocked land, including TFL 7, which existed in 1961 when TFL 39 was established.

(3) Includes property additions with existing denuded lands requiring reforestation at the time of addition to the TFL.

(4) Adjustments due to area remeasurements, correction of denuded data, etc.

(5) Reclassification of Non-productive areas (roads, rock, swamp, etc.)

(6) Does not include "fill" planting (i.e., intensification of stocking) or planting in the 30-year reserve in Block I, Stillwater

Appendix I - Table 10

TFL 39 Stand Tending - 1997
(hectares)

Block	Division	Tenure	Brushing/ Weeding	Spacing	Fertilize	Plant + Fertilize	Pruning	Total Hectares
I	Stillwater	Private	86					86
		Crown	790	315	185	77	14	1 381
		Total	876	315	185	77	14	1 467
II	Eve River	Private						
		Crown	16	164		119		299
		Total	16	164		119		299
	Kelsey Bay	Private	9					9
		Crown	65	132				197
		Total	74	132				206
	Menzies Bay	Private						
		Crown		98	11	337	4	450
		Total		98	11	337	4	450
	Total	Private	9					9
		Crown	81	394	11	456	4	946
		Total	90	394	11	456	4	955
III	Port McNeill	Private						
		Crown				108		108
		Total				108		108
IV	Port McNeill	Private						
		Crown		142	1 067	34		1 243
		Total		142	1 067	34		1 243
V	Stillwater	Private						
		Crown	235	95		32		362
		Total	235	95		32		362
VI	QCD	Private			26	104		130
		Crown	417	381	433	1 729	96	3 056
		Total	417	381	459	1 833	96	3 186
VII	Port McNeill	Private						
		Crown				108		108
		Total				108		108
All	Total	Private	95		26	104		225
		Crown	1 523	1 327	1 696	2 544	114	7 204
		Total	1 618	1 327	1 722	2 648	114	7 429

Appendix I - Table 11

TFL 39 Erosion Control Seeding - 1997
(Hectares)

Block	Division	Hydro Seeding	Dry Seedling	Other	Total Hectares
I	Stillwater	71			71
II	Eve River	18	28		46
	Kelsey Bay	18	5		23
	Menzies Bay	23	4	1	28
	Total	59	37	1	97
III	Port McNeill				
IV	Port McNeill	46			46
V	Stillwater	24			24
VI	QCD		11		11
VII	Port McNeill				
All	Total	200	48	1	249

APPENDIX I - Table 12

TFL 39 Miscellaneous Stand Surveys and Assessments - 1997
(hectares)

Block	Division	Pre-log Prescript	Post-log Prescript	Stand Maintenance Prescript	Post- Treatment Evaluation	Free Growing	Total Area Assessed
I	Stillwater	850	4 967	622	121	1 194	7 754
II	Eve River	504	287		221	482	1 494
	Kelsey Bay	588	650	200	106	1 070	2 614
	Menzies Bay	357	990	161		239	1 747
	Total	1 449	1 927	361	327	1 791	5 855
III	Port McNeill	412	100	963			1 475
IV	Port McNeill	673	138	780	1 209	153	2 953
V	Stillwater	200	991	200	170	131	1 692
VI	QCD	1 140	109	2 343	894	4 571	9 057
VII	Port McNeill	183	105				288
Total		4 907	8 337	5 269	2 721	7 840	29 074

APPENDIX I - Table 13

TFL 39 Free Growing Status Report for Openings Requiring MoF Approval⁽¹⁾
As of December 31, 1997

Block	Division	Openings Not Free Growing					Openings Free Growing ⁽³⁾	
		Number of Openings	Treatment Required (ha)	FG Survey Pending (ha)	Declared FG ⁽²⁾ (ha)	Total (ha)	Number of Openings	Hectares
I	Stillwater	148	2,968	1,152	84	4,204		
II	Eve River	100	2,253	1,139	120	3,512	10	356
	Kelsey Bay	232	1,276	5,845		7,121	8	200
	Menzies Bay	72	1,704	1,048	40	2,792		
	Total	404	5,233	8,032	160	13,425	18	556
III	Port McNeill	19	374	188		562		
IV	Port McNeill	96	1,621	2,459	3	4,083		
V	Stillwater	54	1,179	232		1,411		
VI	QCD	342	12,388	2,125	242	14,755		
VII	Port McNeill	46	836	1,224		2,060		
Total		1109	24,599	15,412	489	40,500	18	556

Notes:

- (1) Only openings/cut blocks with a date of felling on or after October 1, 1987 or negotiated with the MoF, where felling spanned the cut-off date.
- (2) Partial FG openings. An opening is not reported in the next column until it is declared completely Free Growing by MacMillan Bloedel.
- (3) Openings declared Free Growing by MacMillan Bloedel and not yet approved by MoF.

APPENDIX I - Table 14

TFL 39 Funding Credits - 1997

Block	Division	Source ⁽¹⁾	Activity/Description	\$	Ha	
I	Stillwater	Industry Outstanding	Brushing & Weeding	41 274	58	
		Industry Outstanding	Planting	87 777	66	
		FRBC	Fertilization	62 252	185	
		FRBC	Spacing	62 317	50	
		FRBC	Pruning	16 237	19	
		FRBC	Spacing	127 772	115	
		FRBC	Surveys	53 742	665	
		FRBC	Spacing	33 944	31	
		Total		485 315	1 189	
II	Eve River	FRDA	Spacing	304 365	164	
		FRBC	Recreation	15 000		
		FRBC	Grass seeding	47 085		
		Industry Outstanding	Free-to-Grow Assessments	2 977	246	
	Total		369 427	410		
	Kelsey Bay	FRBC	Juvenile Spacing	290 451	132	
	Menzies Bay	Industry Outstanding	Planting	11 731	7	
		FRDA	Spacing/Pruning	160 381	102	
		FRBC	Training/Logging	125 035		
		FRBC	WRP - Roads	300 900		
	Total		598 047	109		
	Total		1 257 925	651		
	IV	Pt McNeill	FRBC	Aerial Fertilization	562 090	1 150
			FRBC	Surveys Layout	26 386	100
			FRBC	Juvenile Spacing	254 621	150
FRBC			Surveys Layout	26 067	1 150	
FRBC			Surveys Layout	49 450	50	
FRBC			Surveys Layout	10 000	60	
FRBC			Recreation Maintenance/Trails	80 000		
FRBC			Recreation Construction	50 000		
FRBC			Surveys Layout	23 123	60	
Total		1 081 737	2 720			
V	Stillwater	Industry Outstanding		61 659	107	
VI	QC	FRBC	Pruning	364 679	96	
		FRBC	Spacing	594 539	381	
		FRBC	Layout	58 798	594	
		FRBC	Training	172 749		
		FRBC	Watershed Restoration	807 719		
		Industry Outstanding	Brushing/Weeding	389 654	336	
		Industry Outstanding	Free Growing	47 101	4 626	
		Industry Outstanding	Recreation Site Maintenance	4 640		
Total		2 439 879	6 033			
Total				5 326 515	10 700	

⁽¹⁾ Industry Outstanding, FRBC, FRDA, etc.

APPENDIX II - Table 1

MacMillan Bloedel Cone Collection - 1997
as of December 31, 1997

Species	Cone Collection (hectolitres)		
	MB Orchards	Wild Collections	Total
Cw	1.3	3.5	4.8
Df		1.9	1.9
Pl		0.1	0.1
Hw	7.4		7.4
Sx		1.8	1.8
Yc	2.9		2.9
Total	11.6	7.3	18.9

28-Mar-00

APPENDIX II - Table 2

MacMillan Bloedel Seed Inventory - 1997

Species	MacMillan Bloedel Seed Inventory ⁽¹⁾				
	Seed Orchard Seed (gm)	Seed Orchard Control Cross (gm)	Wild Seed (gm)	Total Seed (gm)	Approx. Seedlings (000s)
Ba	4 574		407 607	412 181	1 783
Bg			35 069	35 069	414
Bn			53 972	53 972	267
Cw	2 612		22 958	25 570	4 071
Fd	59 282	10 407	28 136	97 825	3 123
Hm			573	573	83
Hw			45 963	45 963	8 854
Lw			617	617	24
Plc			3 136	3 136	427
Pli			40	40	6
Pw			2 409	2 409	44
Py			755	755	3
Ss	9 715		3 580	13 295	2 111
Sx			977	977	110
Sxs			611	611	34
Yc			35 127	35 127	985
Total	76 183	10 407	641 530	728 120	22 339

⁽¹⁾ Does not include seed from 1997 collections
Wild seed from all seed zones are included

APPENDIX II - Table 3

Planting Stock Inventory and Sowing Request
December 31, 1997

Species	Planting Stock Inventory plus Request		
	000s of Trees		
	Spring 1998	Fall 1998 / Spring 1999	Total
Ba	211	199	410
Bg	6	4	10
Bn	39	33	72
Cw	1 910	2 046	3 956
Dg	16	4	20
Dr	5		5
Fd	1 440	2 019	3 459
Hm	43	75	118
Hw	1 937	2 396	4 333
Plc	129	54	183
Pli	7		7
Pw	9	61	70
Ss	541	804	1 345
Sx	41	25	66
Yc	474	925	1 399
Total	6 808	8 645	15 453

APPENDIX I - Table 1

TFL 39 Volume Harvested in 1997
Based on Cut Control Letter Issued by Vancouver Forest Region
Volumes (m³)

Block	Division	Tenure	Ha	Fir	Pine	Cedar	Cypress	Spruce	Hemlock	Balsam	Decid	Total Billed	Residue	Total Cut Control
I	Stillwater	Private		623		20			124		53	820		820
		TL	4	123		2 945	83		969	644	1	4 765		4 765
		Crown	343	174 375	220	77 273	10 127	36	83 879	7 430	10 661	364 001	15 721	379 722
		Total	347	175 121	220	80 238	10 210	36	84 972	8 074	10 715	369 586	15 721	385 307
II	Eve River	Private		47.4%	0.1%	21.7%	2.8%	0.0%	23.0%	2.2%	2.9%	100.0%		
		TL	105	184	46	9 047	4 463	78	50 983	21 065	18	85 884	1 287	87 171
		Crown	216	62	86	26 080	18 067	56	91 582	64 740	68	200 741	11 691	212 432
		Total	321	246	132	35 127	22 530	134	142 565	85 805	86	286 625	12 978	299 603
	Kelsey Bay	Private		31		1 169	357		1 454	1 109		4 120		4 120
		TL	171	404	35	23 705	5 582	40	44 543	32 085	44	106 438	8 972	115 410
		Crown	330	5 962	69	16 536	25 792	524	124 238	103 811	172	277 104	9 332	286 436
		Total	501	6 397	104	41 410	31 731	564	170 235	137 005	216	387 662	18 304	405 966
	Menzies Bay	Private		11		9 831	4 803	5	14 611	12 016	17	42 131	2 059	44 190
		TL	239	13 316	75	28 830	7 877	31	79 985	42 289	464	172 867	9 499	182 366
		Crown	262	14 153	86	38 661	12 680	36	94 596	54 305	481	214 998	11 558	226 556
		Total	262	14 153	86	38 661	12 680	36	94 596	54 305	481	214 998	11 558	226 556
	Total	Private		31		1 169	357		1 454	1 109		4 120		4 120
		TL	299	1 425	92	42 583	14 848	123	110 137	65 166	79	234 453	12 318	246 771
		Crown	785	19 340	230	71 446	51 736	611	295 805	210 840	704	650 712	30 522	681 234
		Total	1 084	20 796	322	115 198	66 941	734	407 396	277 115	783	889 285	42 840	932 125
III	Port McNeill	Private		2.3%	0.0%	13.0%	7.5%	0.1%	45.8%	31.2%	0.1%	100.0%		
		TL	13	153	24	10 027	39	447	17 099	2 883	5	30 677	1 634	32 311
		Crown	62	795	5	421		3 630	43 503	1 337	43	49 734	783	50 517
		Total	75	948	29	10 448	39	4 077	60 602	4 220	48	80 411	2 417	82 828
IV	Port McNeill	Private		1.2%	0.0%	13.0%	0.0%	5.1%	75.4%	5.2%	0.1%	100.0%		
		TL	22			173		129	7 228	535	48	8 113		8 113
		Crown	44	998	18	12 017	94	823	19 437	6 941	117	40 427	1 304	41 731
		Total	345	1 432	18	50 694	20 027	4 873	137 014	43 441	534	258 033	13 362	271 395
V	Stillwater	Private		0.6%	0.0%	19.6%	7.8%	1.9%	53.1%	16.8%	0.2%	100.0%		
		TL				23 250	2 342	2 676	72 883	86 312	63	188 447	4 696	193 143
		Crown	192	921		23 250	2 342	2 676	72 883	86 312	63	188 447	4 696	193 143
		Total	192	921		23 250	2 342	2 676	72 883	86 312	63	188 447	4 696	193 143
VI	QCD	Private		0.5%		12.3%	1.2%	1.4%	38.7%	45.8%	0.0%	100.0%		
		TL	60		1 095	9 173	13 253	2 202	16 677			41 305	4 510	45 815
		Crown	70		8 114	14 078	6 449	2 496	6 090			30 208	843	31 051
		Total	1 320		9 209	323 432	83 221	86 891	342 038			10	844 801	41 839
VII	Port McNeill	Private			1.1%	38.3%	9.9%	10.3%	40.5%		0.0%	100.0%		
		TL				36 804	18 818	18 092	48 506	38 178	86	160 518	7 707	168 225
		Crown	181	2	32	36 804	18 818	18 092	48 506	38 178	86	160 518	7 707	168 225
		Total	181	2	32	36 804	18 818	18 092	48 506	38 178	86	160 518	7 707	168 225
ALL		Private		0.0%	0.0%	22.9%	11.7%	11.3%	30.2%	23.8%	0.1%	100.0%		
		TL	82	654		10 535	13 610	2 331	25 483	1 644	101	54 358	4 510	58 868
		Crown	430	2 699	1 211	81 650	21 513	3 889	153 732	75 634	202	340 530	16 099	356 629
		Total	3 032	195 867	8 619	547 879	166 475	111 159	974 196	380 062	11 936	2 396 193	107 973	2 504 166
ALL		Private		7.1%	0.4%	22.9%	7.2%	4.2%	41.3%	16.4%	0.4%	100.0%		
		TL	3 544	199 220	9 830	640 064	201 598	117 379	1 153 411	457 340	12 239	2 791 081	128 582	2 919 663
		Crown	3 544	199 220	9 830	640 064	201 598	117 379	1 153 411	457 340	12 239	2 791 081	128 582	2 919 663
		Total	3 544	199 220	9 830	640 064	201 598	117 379	1 153 411	457 340	12 239	2 791 081	128 582	2 919 663