WEYERHAEUSER
BC Coastal Group

1999 ANNUAL REPORT

TREE FARM LICENCE

No. 39

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DISTRIBUTION LIST

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STATEMENT OF AUTHORSHIP

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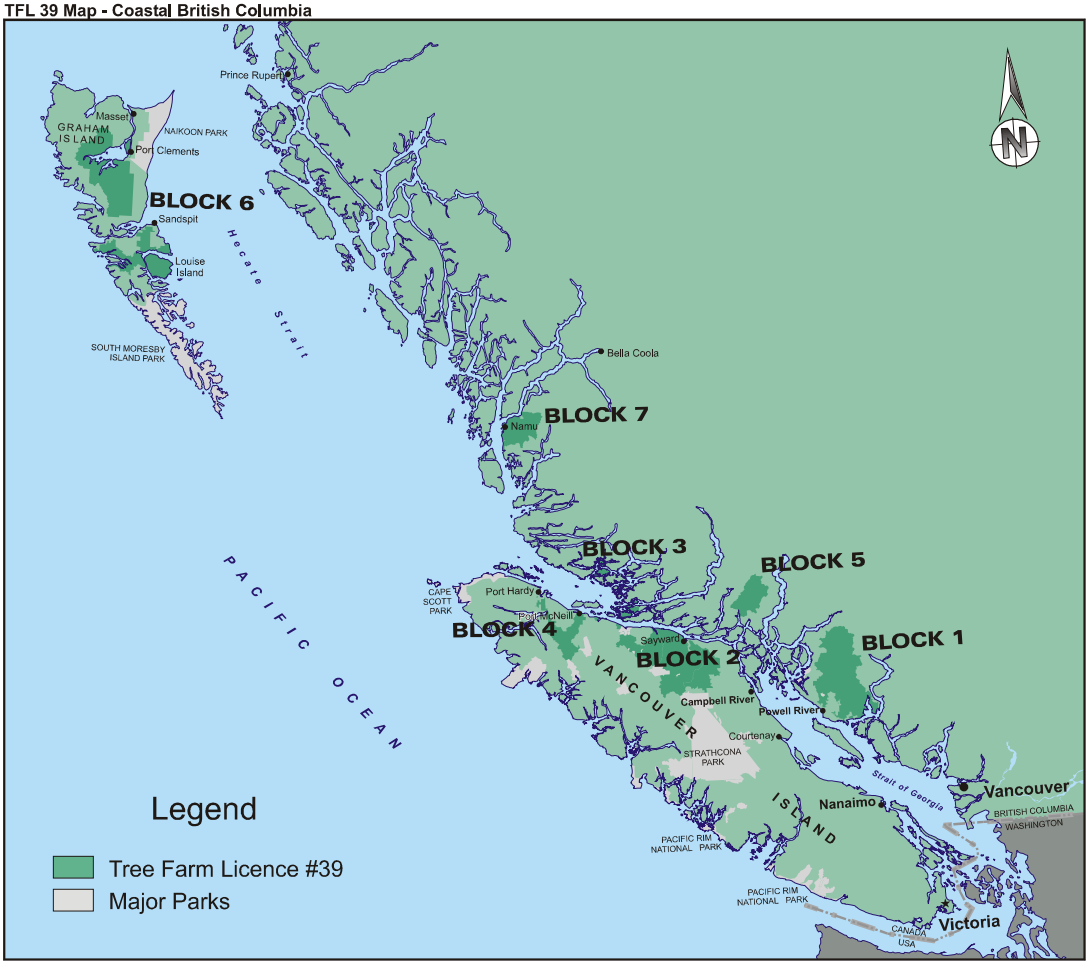
1.0 Introduction

TFL 39 includes seven geographically separate blocks that are dispersed along the BC Coast and are managed by four of Weyerhaeuser's Coastal BC operations. Refer to the following table and to the location map.

TFL 39 Block	Geographic location	MoF Forest District	Weyerhaeuser Timberlands Operation
Block 1 (Powell River)	Powell River Area	Sunshine Coast	Stillwater
Block 2 (Adam River)	North of Campbell River	Campbell River	North Island
Block 3 (Coast Islands)	Islands off Port McNeill	Port McNeill	Port McNeill
Block 4 (Port Hardy)	North Vancouver Island	Port McNeill	Port McNeill
Block 5 (Phillips River)	NW of Bute Inlet	Campbell River	Stillwater
Block 6 (QCI)	Queen Charlotte Islands	Queen Charlotte Islands	Queen Charlotte
Block 7 (Namu)	Central Coast	Mid Coast	Port McNeill

TFL 39 covers over 800 000 ha, approximately two-thirds of which is productive forest land. The current Management Plan (#7) is for the period to June 30, 2001 and has an Allowable Annual Cut (AAC) of 3 740 000 m^3/year, including 162 218 m^3/year allocated to the Small Business Forest Enterprise Program (SBFEP).

TFL 39 Map - Coastal British Columbia



The TFL 39 Annual Report for 1999 describes achievements in meeting management obligations and objectives.

2.0 Summary of Major Events and Initiatives in 1999

On June 21, MacMillan Bloedel Limited and Weyerhaeuser announced an agreement to merge the two companies. After regulatory (Canadian and US) and shareholder approvals, MB became part of Weyerhaeuser on November 1, 1999. The coastal operations are now known as the Weyerhaeuser B.C. Coastal Group.

Strategies continued to focus on corporate goals of safety in the workplace, business success and becoming a highly respected forest products company.

- The corporate commitment to safety has resulted in a dramatic reduction in medical incidents since 1997. The indicator used to measure safety has been the Medical Incident Rate (MIR) – the number of incidents per 100 workers that require a doctor's medical attention or result in lost work time. The MIR for the BC Coastal Group for 1999 was 8.3, a reduction by a third from the MIR achieved in 1998. In the future the safety indicator will be changed to Reportable Incident Rate (RIR), which is very similar to MIR. The target for 2000 is to reduce the RIR by a further 33%.

- Co-design, co-management or partnership programs continued at most Coastal BC operations. They are continuing to have a favorable impact on cost and profitability.

- The Forest Project passed an important milestone this past summer as a group of scientific experts gathered in Campbell River, BC to review the Company's Year One Progress. The 14-member review panel [selected by MB and environmental groups] included Canadian and U.S. forest experts drawn from universities, government and the private sector. The project is above target for achieving 100% variable retention on BC Coastal Woodlands within 5 years – for 1999, 35% of the area harvested was with variable retention.

- In May 1999, North Island Woodlands received certification status under both the Canadian Standards Association's [CSA] Sustainable Forest Management standards [it was the first in Canada to obtain CSA certification] and the ISO 14001 environmental management system - only the fourth operation in North America to achieve this. The area certified includes 230,000 hectares of forestlands near Campbell River and Sayward, in TFL 39, Block 2 and Blocks 8 and 9 of MF 19.

  Other timberlands operations have commenced preparation for certification. This includes developing successful public participation processes, expanding environmental management systems and implementing a sustainable forest management system. The goal is to achieve CSA and ISO 14001 certification at all Weyerhaeuser Coastal Timberlands operations by the end of 2003. The BC Coastal Group is participating in the process to

develop Regional Standards for Forest Stewardship Council (FSC) certification.

Plans also include achieving mill certification. This includes setting up a "chain of custody" tracking system that follows the wood from forest to customer and guarantees that certain environmental and sustainability standards are met.

- Re-engineering projects in 1999 included a "Tree to Plan" team that focused on improving efficiency in forest planning and approval processes, on providing more direct links between customer demand and operations. This co-operative effort between Weyerhaeuser and the Ministry of Forest resulted in a number of initiatives.

  One such initiative that started in late 1999, is the Stillwater Timberlands Pilot Project "Forest Stewardship Plan," applied to Block 1 of TFL 39. The purpose of this project is to develop a forest management and approval process that:

  - Allows Licensees flexibility to meet customer demand.
  - Encourages local community, government agency and First Nations involvement early in planning processes.
  - Shifts government focus from office approvals to field results.

  The project will reinvent the legislated approval process (in early 2000 it was accepted as a pilot project under part 10.1 of the Forest Practices Code of BC Act – "Pilot projects to Improve the Regulatory Framework for Forest Practices"). It will move toward landscape level planning and will shift public-, agency- and First Nation involvement from review of and comment on proposed plans to participation and consultation during the planning process.

Some improvement in Japanese markets and progress in reducing costs resulted in an improved year relative to 1998.

Weyerhaeuser (BC Coast) woodlands operations, and the mills that depend on them for logs, suffered the effects of the worst snow levels in 50 years. In early February, as coastal BC sawmills were struggling to keep working with increasingly tight log inventories, heavy snowfalls on the Coast, Vancouver Island and Queen Charlotte Islands shut down most of MB's Woodlands operations.

The IPD sawmill in Nanaimo, started up one shift at the end of April after a 4-month shutdown because of log shortages.

3.0 Management and Obligation Performance

3.1 Timber Harvesting

3.1.1 Volumes Harvested by Weyerhaeuser

Weyerhaeuser harvested volumes (including residue) on private and Crown land within the TFL as follows:

Private	128 274 m^3	4%
Timber Licenses	431 071 m^3	13%
Crown	2 655 404 m^3	83%
TOTAL	3 214 749 m^3	100%

A detailed summary of timber harvested by division, block, tenure, and species is shown in Table 1 of Appendix I.

3.1.2 Cutting Balance

This is the fourth year in the 1996-2000 Cut Control period. The harvest in 1999 was 90.4% of the AAC. Cut Control status is shown below.

Year	1996	1997	1998	1999	Total
Weyerhaeuser AAC (m^3)	3 545 460	3 577 780	3 577 780	3 556 889 (1)	14 579 909
Actual Cut (m^3)					
• Log Scale	3 133 897	2 791 082	2 479 259	3 098 796	11 503 034
• Residue	159 971	128 581	85 987	115 953	490 492
Total Actual Cut (m^3)	3 293 868	2 919 663	2 565 246	3 214 749	11 993 526
Percent of AAC	92.9%	81.6%	71.7%	90.4%	82.2%

(1) The Minister of Forests gave consent for the transfer of TFL 39 to Weyerhaeuser on October 29, 1999. Under Section 56 of the Forest Act, the licensee's AAC attributable to crown land is reduced by 5%, 14 days after consent is given for the transfer. Hence, effective November 12, 1999 the company AAC attributable to crown land has been reduced by 5% (152 522 m^3) to 2 897 920 m^3. In total (attributable to crown land and to private land and timber licences) the company AAC is reduced from 3 577 782 m^3 to 3 425 260 m^3. For 1999 the reduction has been prorated over the period (November 12th to December 31st) to which it applies.

Under Section 56.1 of the Forest Act, Weyerhaeuser is preparing a submission that includes a job creation plan and requests an increase in company AAC equivalent to the 5% reduction.

3.1.3 Volumes Harvested by SBFEP

Volume harvested in SBFEP sales during 1999 totaled 101 219 m^3 (refer to Appendix I, Table 2). The SBFEP harvest volume and allocation (162 218 m^3) are separate from the Weyerhaeuser harvest and AAC allocation discussed in sections 3.1.1 and 3.1.2. The following table shows the SBFEP volume

harvested over the last five years (note that residue may not be billed every year).

Year	1995	1996	1997	1998	1999
Harvest Volume (m^3	179 606	151 798	160 854	45 571	101 219

3.1.4 Compliance with Contractor Requirements

Contractor requirements are described in Section 14 of the current TFL 39 Licence Agreement. Further details on the calculation procedure are prescribed in the contractor clause compliance regulation.

For 1999, 124.2% of compliance was achieved.

Summary of Contractor production (m^3)

Full Contracts		1 350 634	82%
Phase Contracts (in equivalent volume harvested)			
Roads	180 044		
F & B	20 750		
Yarding	34 255		
Loading	21 335		
Hauling	7 379		
Dump, Sort and Boom	24 254		
Sub-total		288 017	18%
Total		**1 638 651**	**100%**

3.1.5 Harvest Performance by Block

TFL 39 consists of seven separate Blocks that are geographically dispersed along the BC coast. The approval letter for MP #7 defined AAC contributions by Block (Blocks 3 and 4 were combined) and requested a summary of annual harvest performance by the same units. The following table summarizes harvest by Block for 1999.

Block	MP #7 AAC Contribution m^3	SBFEP Allocation & contribution to 5% reduction m^3 (1)	MoF District	Weyerhaeuser Allocation m^3	Volume Harvested including Residue m^3	Variance	
						m^3	%
I	445 000	24 329	Sunshine Coast	420 671	508 213	87 542	21
II	1 335 000	65 838	Campbell R	1 269 162	1 102 436	(166 726)	(13)

III, IV	415 000	17 024	Port McNeill	397 976	469 179	71 203	15
V	100 000	4 320	Campbell River	95 680	145 314	49 634	52
VI	1 210 000	63 220	Queen Charlotte	1 146 780	829 465	(317 315)	(28)
VII	195 000	8 380	Mid-Coast	186 620	115 084	(71 536)	(38)
Decid.	40 000	--		40 000	45 058	5 058	13
Total	**3 740 000**	**183 111**		**3 556 889**	**3 214 749**	**(342 140)**	**(10)**

(1) This column accounts for TFL 39 AAC that is not credited to Weyerhaeuser. This includes the allocation to SBFEP. It also includes the 5% decrease in Schedule B (crown) contribution to the company AAC, because of the transfer of TFL 39 from MacMillan Bloedel to Weyerhaeuser. Since the transfer was effective from November 12, 1999, the decrease is prorated for the following 50 days, to the end of 1999. The allocation of this change by Block is based on the proportions of Schedule B productive forest area by Block.

3.1.6 Harvest Profile (operability class)

Results are based on Divisional volume data (excluding residue) and on the inventory classification for operability. In 1999 there was 1 676 260 m^3 of first growth harvested in the conventional economic class and 533 017 m^3 in the non-conventional economic class. A further 26 552 m^3 classified as marginal economic was logged. In addition 777 036 m^3 of second-growth timber was harvested. These numbers differ from the BCFS Billed volume (Table 1a) due to differing year-end dates. Harvest Profile production is shown in Appendix I, Table 1c.

3.1.7 Harvest from Deciduous Areas

The deciduous AAC allocation of 40 000 m^3 is not specifically assigned by Block, but is allocated to areas described as deciduous in the timber inventory. This includes stands with a deciduous species (usually red alder) as the leading or primary species.

In a letter dated August 18, 1998, the Regional Manager confirmed the procedure for reporting of harvest performance in deciduous stands. The following table shows the resulting estimates of deciduous stand volumes for 1996 to 1999. All of this "deciduous" harvest has occurred in Block 1 (Powell River).

Harvest from Deciduous Stands (1996 to 1999)

Year	Harvest Volume (ooo m^3)
1996	24 306
1997	6 131
1998	34 119
1999	45 058

Total	109 614

3.2 Higher Level Plans

There were no higher level plans in place at the end of 1999. It is expected that Landscape Unit planning will commence and that the Vancouver Island land Use Plan (includes Blocks 2 and 4 of TFL 39) will be approved during 2000.

An Integrated Watershed Management Plan (IWMP) has been completed for the Haslam/Lang watershed, a portion of which is in TFL 39, Block 1. This watershed supplies water to the community of Powell River. It is expected that the Haslam/Lang IWMP will be declared a Higher Level Plan in 2000.

Weyerhaeuser is actively participating in the Central Coast Land and Coastal Resource Management Plan (CCLCRMP) planning process. This planning area includes Block 3 (Islands), Block 5 (Phillips River) and Block 7 (Namu) of TFL 39.

3.3 Inventories

A number of inventories have been reviewed and updated in preparation for the MP #8 analysis. A fuller description is included in the draft Information Package (October 1999). Since then some changes have been made to net-down factors. These are referred to in the following summary of inventory updates.

3.3.1 Visual Landscape

Visual landscape inventories have been updated for MP #8. Data entry was completed in 1999 and inventories have been reviewed by District staff.

3.3.2 Recreation

Similarly updates to recreation and recreation opportunity spectrum inventories have been completed. Recreation analyses (by Block) have also been completed and reviewed by MoF staff.

Changes have been made to recreation net-downs (for use in the MP #8 analyses) following submission of the Information Package. A 50% net-down was being applied to “C1” recreation polygons, those labeled with a recreation feature significance of C and a recreation feature class of 1. During review of the net-downs it was recognized that the standard practice is not to apply a net-down to these areas. For blocks 2 to 7 then, it was agreed (in discussion with MoF Regional and District staff) to change the net-down on “C1” polygons from 50% to 0%.

Stillwater Timberlands and Sunshine Coast District staff reviewed the recreation net-downs for Block 1. They agreed that net-downs for recreation should only be applied to six recreation polygons as generally recreation values were protected by management constraints for other resources (net-downs and rate of harvest constraints). In addition, Stillwater timberlands plan to review and update the Block 1 recreation inventory in 2000.

3.3.3 Terrain

Detailed five-class terrain mapping was completed for Block 7 (Namu) in 1996. Applying standard net-downs of 20% for class IV terrain and 90% for class V terrain resulted in a soils net-down of 21.7% of the productive forest area. This net-down is high compared to other coastal areas of similar terrain.

After review of the terrain mapping by an outside contractor, it was agreed to change the net-downs to 5% for class IV terrain and to 80% for class V terrain for the MP #8 analysis.

3.3.4 Wildlife

Goat winter range and grizzly habitat inventories for Blocks 1 and 5 were updated in 1999 by MoELP and Weyerhaeuser staff. In a second stage of the review, net-downs were assigned specifically to each polygon. Further review of the goat winter range polygons is planned for 2000.

The MP #7 commitment to assess the mature timber near Rainy Day Lake in Block 1 for suitability as deer winter range was completed. Two deer winter ranges were defined, one to the northwest of Rainy Day Lake and the other northeast of Lois Lake.

The grizzly bear habitat inventory in Block 7 was reviewed and updated. Habitat polygons were mapped using recently completed Terrestial Ecosystem Mapping for most of Block 7 and a procedure developed by the MoELP (Victoria). The approach was confirmed in a joint Weyerhaeuser MoELP field visit.

3.3.5 Timber

The TFL 39 mature (greater than 130 years of age) inventory volumes were recompiled. This included incorporating operational cruising (completed prior to 1996 and unlogged at that time) to improve the less intensive original inventory in these areas. In the remaining mature area (not included in the operational cruise), average lines were recalculated to reflect the samples remaining (i.e. unlogged and not replaced by operational cruising).

Thirty-three percent of the mature timber volume is now estimated from operational cruising, a more intensive cruise than the 1964 inventory.

Most of the remaining mature inventory (99%) has been subject to inventory audits over the last ten years. The last of these audits, in Block 5, was completed in 1999.

The audits have occurred in accessible timber (MCI) and inaccessible timber (MCIII) as typed in the 1964 inventory. Inventory volumes in the MCI type are compiled from samples, while in the MCIII type, volumes have been estimated from photo-coding. More recent operability mapping has replaced the accessibility classification.

Audit results for the MCI areas were significantly different only in Block 6. These volumes will be reduced by 11% in the MP #8 analysis. The differences (non-significant) for the other Blocks will be discussed in the MP #8 sensitivity analysis on mature volume estimates.

For MCIII areas, the audit to inventory comparison will be used to adjust all mature volumes in the MP #8 analysis. This is because MCIII inventory volume estimates are not based on direct plot measurement. For all Blocks, the audit volume estimate for MCIII areas is higher than the inventory photo-coded estimate.

During 1999, 1 087 ha of "31+" cruising were completed. The "31+" cruise is applied to young stands that reach "pole-size", generally between 25 and 40 years of age. This re-inventory includes measurement of site index, basal area and volume.

Weyerhaeuser 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. . Coast wide a total of 95 Second–Growth, 12 Planting Assessment, 5 Sustained Yield, 42 Spacing Assessment, 54 Nutrition and 20 Mature plots were remeasured. Specifically, in TFL 39, 10 Second Growth, 4 Planting Assessment, 42 Spacing Assessment, 3 Nutrition and 15 Mature plots were measured in 1999.

3.3.6 Operability

An update of the operability mapping was completed in 1999.

3.3.7 Cultural Heritage Resources and Archaeological Sites

Archaeological overview assessments have been completed for Block 6 (Queen Charlotte Islands).

A portion of the FRBC Multi-Year Funding has been allocated for Archaeological Inventory Studies in Block 6. Field work was completed in parts of the Juskatla Inlet, Masset Inlet and Kumdis Island areas in 1999. More work is planned for 2000.

In 1999, Weyerhaeuser provided funding for combining inventories in a digital format, for planning purposes. Further work is required to produce a useable product. Weyerhaeuser is cooperating with District initiatives in this regard.

3.3.8 Terrestrial Ecosystem Mapping (TEM)

The objective is to map ecosystems (site series) at 1:20,000 for all Weyerhaeuser BC Coastal Group tenures. This inventory will provide data for strategic and operational planning, including forest level analysis, landscape-level planning and silviculture prescriptions. Funding is provided by Forest Renewal BC. All projects are being done on the TRIM (NAD 83) base and follow the provincial Resource Inventory Committee (RIC) mapping and database standards. Final digital products were completed for the Yakoun-Tlell, Mamin-

Blackwater, and Dinan-McClinton areas in Block 6 and the Adam-Eve in Block 2 during early 1999. Completed products for the Salmon River (Block 2) and Lois Lake (Block 1) are expected in early 2000. TEM mapping for TFL 39 is expected to be complete in 2002.

3.4 Other Items in the MP #7 Approval Letter and AAC Rationale

The report format has been changed this year. To assist the reader, this section also includes achievements that have occurred earlier in MP #7. Many of the items involve the preparation of information or development of procedures for use in the forthcoming MP #8 analysis.

- The insect and disease pest strategy was submitted and approved in 1998.

- The terms of reference for a review of operability mapping was submitted and approved in 1998. The operability mapping review has been completed.

- Estimates of non-recoverable losses from wind, fire, insects and disease have been reviewed. Records are available on losses to fire. Timber losses (unsalvaged) to epidemic outbreaks of disease and insects have been minor. Losses to wind were based on discussions with operational engineers. The Adaptive Management and Variable Retention groups are planning to include windthrow and forest health in their monitoring program (refer to Section 4.4.2).

- Weyerhaeuser's biophysical decision tree approach for assigning site indexes to old-growth and young (pre 31+ cruise) stands has been reviewed. Comparisons of model estimates and recent (1990s) second-growth cruise results show reasonable agreement (refer to Section 6.5 in the MP #8 Information Package). Research Branch has approved use of the decision tree estimates in the MP #8 analysis.

- In early 1999, approval was received from Resource Inventories Branch on the waste and breakage allowance for use in MP #8 analyses.

- The growth and yield implications of variable retention silvicultiral systems have been reviewed. This has included a literature review and discussions with staff at Research Branch. It is expected that higher levels of retention (than previously applied) will result in more crown competition (less light available) for the regenerating crop and hence some reduction in timber yield. Such yield adjustments for future crops will be included in the analysis for MP #8. Growth and yield is a component of the variable retention monitoring program that is currently being established.

- The MP #8 analysis base option will include landscape biodiversity targets as currently directed by Timber Supply Branch. In a separate option, old seral targets will be applied according to the draft landscape units and biodiversity emphases. The analysis will also incorporate additional allowances for variable retention across the forest landscape and for further reserves in old-growth stewardship zones (refer to Section 4.4.1 on The Forest Project).

- Results of Coastal Watershed Assessment Procedures (CWAPs) have been discussed with the professional hydrologists involved in the work. Generally, minimal impacts on harvest rates are expected. Short-term (first ten years) harvest rate restrictions will be applied to several watershed basins in Blocks 1, 2 and 4 in the MP #8 analysis.

4.0 Success in Meeting Management Objectives

4.1 Management and Utilization of the Timber Resource

Refer to section 3.1.

North Island Timberlands (Block 2) has initiated an investigation of harvesting opportunities in constrained areas. Individual tree and small patch logging by helicopter can enable removal of some trees without interfering with primary protection (soils and riparian) or non-timber (wildlife, recreation etc.) values. Operational trials are planned for 2000.

4.2 Forest Health and Protection

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

Of note in 1999:

4.2.1 Forest Fires

A total of seven fires burned a total of 23 ha. Lightning ignited three spot fires in Stillwater, two operational fires consumed 23 ha and the public was responsible for additional two fires. The fires burned 1 ha of immature and 22 ha of NSR (see Appendix I, Table 4).

All divisions used slash accumulation burning to reduce fire hazards at specified landings. A total of 141 ha of logging accumulations were burned in 1999. In addition, Port McNeill Division used a broadcast burn to reduce the hazard on 29 ha in Block IV.

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 30 fire watches were flown by FIFT. In addition, 22 fire patrols were flown during periods of high fire hazard.

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

4.2.2 Insects

Conifer sawfly (*Neodiprion spp*.) populations in Block 2 have collapsed in high-risk areas. Monitoring of populations and mortality will continue. There has been some salvage in high-risk stands in the Kunnun Drainage.

The conifer sawfly infestation in Block 5 (Phillips River) has collapsed. Harvest operations in 1999 included recovery of timber from stands previously impacted by the infestation.

The Canadian Forestry Service is currently monitoring populations of the black headed budworm in Queen Charlottes. Moderate to high infestation levels are reported in Louise Island and Alliford areas. Moderate infestation levels are found in the Skidegate area. Low to moderate infestation levels is present in the Ferguson area. Nil to low infestation levels have been reported in the Dinan/McClinton area. The insect activity continues to be monitored and mapped.

4.2.3 Disease

No reports of forest diseases were reported in 1999.

4.3 Silviculture

4.3.1 Forest Regeneration

Weyerhaeuser is committed to prompt reforestation of harvested land with appropriate species considering both silvical characteristics and economic values. Treatment activities include site preparation, planting and assessment of regeneration (both planted and natural) performance.

Site preparation

In total, site preparation occurred on 667 ha during 1999. Major treatments (by area) included three meter knockdown, burning accumulations, mechanical scarification and drainage restoration. Refer to Table 5 in Appendix I for details.

Seed Procurement and Tree Improvement

Details on seed procurement, seed inventory and seedling inventory are described in Appendix II.

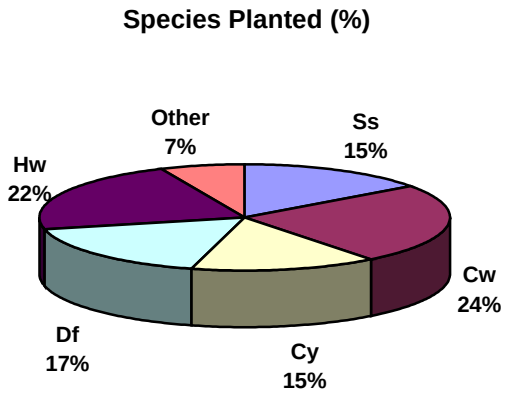
The forest genetics program of Weyerhaeuser's BC Coastal Group deals with supply of genetically improved seed for reforestation use on both Crown and Private Lands.

1n 1999, Weyerhaeuser entered into two long term (5 year) Seed Supply Agreements – one with Canadian Forest Products and one with Timber West. The Agreements secure high gain genetic seed for future Douglas fir and secure high gain seed for Hw, Cw, Pw and cutting production for Yc.

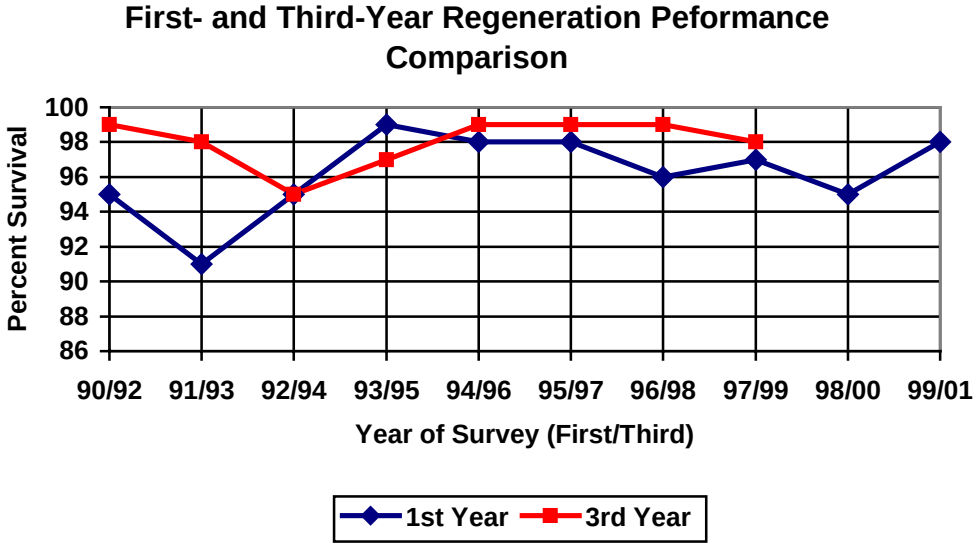
The program is exploring other techniques for delivery of high gain products for the reforestation program needs. These techniques include agreements for control-pollinated seed, cutting propagation and the potential of somatic embryogeneses as an alternative technique for Douglas fir.

Planting

Planting was completed on 2 900 of Area Awaiting Restocking (AAR) using 2 905 700 seedlings. Fill planting was done on 287 ha using 207 100 trees to bring the stocking level on those areas to Management Plan standards. Appendix I, Table 6 shows the number of trees planted by operation and Appendix I, Table 7 details the hectares planted by operation and tenure. The following graph details the percent of species planted in 1999



Survival surveys, completed one year after planting, on 4 302 ha showed a survival rate of 98%. Three years after planting, the survival remained at 98% on the 2 972 ha surveyed in 1999. See Appendix I, Table 8 for details.

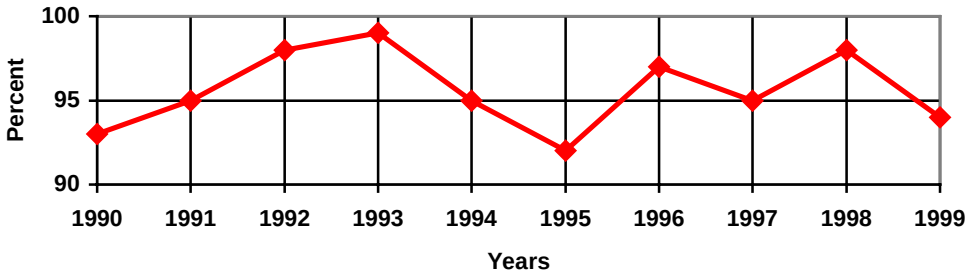


The first year survival rate has been at or above the 95% level for the last eight years. With the exception of 1995, the third-year survival has equaled or surpassed the first-year survival performance. Weather conditions are the probable cause for the lower survival rate in 1995. The third-year data does not include plantations that failed the first year.

Natural Regeneration

Stocking surveys in naturally regenerated areas were conducted on 2 456 ha and 32% were found to be stocked. An assessment of 1 828 ha of naturally regenerated areas, three years after the first stocking survey showed 94% to be stocked. Details of these surveys by operation are found in Appendix I, Table 8. Natural stand regeneration has remained above 92% since 1990.

Natural Regeneration Performance



4.3.2 Stand Tending

The following table summarizes stand tending activities for 1999. Details by operation and tenure are described in Appendix I, Table 9.

Treatment	(hectares)
Brushing/Weeding	1,580
Spacing	353
Fertilization	896
Fertilization at Planting	2,310
Pruning	20
Total	**5,159**

The substantial areas treated for brushing/weeding and fertilization at time of planting reflect an emphasis on early attainment of well stocked free growing stands.

4.3.3 Erosion Control

A total of 342 ha of slide or roadside areas were treated either by hydro or dry seeding. Refer to Appendix I, Table 10 for details.

4.3.4 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 11 details the 22 697 ha surveyed for various assessments in 1999.

4.3.5 Operational Research

Operational research is carried out in several of Weyerhaeuser's Coastal BC operations. Results can be applicable to TFL 39 when species, site index, terrain and biological conditions are considered. Work in 1999 included:

Montane Alternative Silvicultural Systems (MASS)

Research continued on the cooperative Montane Alternative Silvicultural Systems (MASS) project. The participating organizations include: Weyerhaeuser, Canadian Forest Service, FERIC, UBC and UVIC. Forest Renewal BC provides funding. 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, shelterwood and patch cutting. Harvesting was completed in 1993; post-harvest monitoring continued through 1999. Weyerhaeuser studies included: regeneration, growth and yield, microclimate, hydrology, forest bird diversity and vegetation succession. Activities and results for 1999 include:

Regeneration: An analysis was completed in 1999 on the full five years of seedling performance data from field experiments. The results confirmed pervious observations that the primary limiting environmental factors are nutrition and vegetation competition. The five year trend analysis indicates that these limiting factors are staged with nutrition being most limiting in the first few years and vegetation more limiting in the latter years. These effects were accentuated in high light environments and it was clear that they far outweighed the reduced light environment effects created by using non-clearcut silvicultural systems.

Monitoring of wind damage, seedfall and natural vegetation continued in 1999. Final reports for Forest Renewal BC on the results after five seasons will be completed in 2000.

Effects of Prescribed Burning on Some Coastal BC Sites

Three research sites are located southwest of Pt. Alberni in TFL 44. Ten-year measurements were completed in 1995. The best growth of Douglas fir, western red cedar and yellow-cedar was on the highest intensity burns; however, these fires consumed significant amounts of nitrogen and other nutrients that may affect long-term productivity. Preparation of journal publications from 10-year results began in 1999 and will be submitted in 2000. Fifteen-year tree growth, vegetation and nutrition assessments will be done in fall 2000. This study represents unique data for coastal ecosystems in the Pacific Northwest that warrants continued monitoring.

Fertilization Trials

Various fertilization trials have been established during the last two years. They include trials in three juvenile (aged 15 to 18) western hemlock stands, established in 1998 and measured in 1999. Objectives are to measure volume per ha growth response to N and N + P and to examine whether stand measurements, foliar analysis or soil analysis provide any basis for selecting

sites to fertilize. This work is funded by FRBC. A report on first year measurements will be prepared in 2000.

4.4 Resource Protection

4.4.1 Forest Project

In June of 1998, Weyerhaeuser BC Coastal Group announced a New Forest Management Strategy. Key components include phasing out clearcutting over a five-year period to be replaced by variable retention and an increase in conservation of old-growth forests and wildlife habitat.

The implementation of the strategy is on schedule.

- In 1999, for all company coastal operations, variable retention was applied on 35% of the area harvested. For TFL 39 the proportion of area harvested with variable retention was 25%. Refer to Table 1b in Appendix I.

- In 1999 a scientific panel was convened to review the first years progress on implementation of the Forest Project. Fourteen scientists were invited to the workshop to act as an expert panel. About half of the scientists were nominated by environmental organizations and half by the company. Also attending were representatives from seven environmental organizations, and Weyerhaeuser. The Panel Review indicated both successes particularly with stand level implementation and areas that needed improvement around landscape planning, zoning and adaptive management.

- Assessment and revisions of Stewardship Zones is ongoing. During 1999 consultation with Government, ENGOs and Divisional engineers has resulted in some shifting of zones. A complete ecological analysis of the zones will be conducted during 2000 for presentation at the Year 2 Panel Review.

- Emphasis has been placed on training. To-date, approximately 250 people have taken a 3 or 4-day training course covering safety, objectives, prescriptions and layout for variable retention. A video has been produced to introduce employees to the rationale and basic elements of the VR approach. There are plans to develop training videos that cover the detailed contents of the workshops.

An evaluation was completed of 1999 VR cutblocks to monitor performance and identify areas for improvement.

The Variable Retention Working Group facilitates on-going development of planning and policies. This group of foresters, forest engineers and biologists representing the BC Coastal operations meet on a regular basis.

Development continued on an experimental harvesting technique for single stems, whereby a helicopter removed a cut-and-limbed tree without it falling to the ground. This technique has applications on very sensitive terrain or as a first-pass removal of high-value stems prior to conventional yarding.

4.4.2 Adaptive Management and Monitoring

The Adaptive Management (AM) and Variable Retention (VR) Working Groups have finalized a preliminary monitoring framework. It will use an extensive and intensive split:

- **Extensive**—The extensive or passive adaptive management framework will consist of monitoring structure and organism presence or absence along with windthrow and forest health problems in current and future VR settings. During 1999 approximately 50 new VR settings were assessed for forest attributes including snags, coarse woody debris, live trees, and stand structure as well as evaluating bryophytes, birds and terrestrial gastropods as indicator organisms.

  This structural work will be used to establish the appropriate sampling design to achieve a power of the test that will allow us to detect a 10% difference 80% of the time. The program will continue to assess structural attributes in 2000 and will include birds, bryophytes and lichens, terrestrial and aquatic amphibians, terrestrial gastropods and squirrels in the organism assessment.

- **Intensive**—the intensive or active adaptive management framework will consist of five designed comparisons replicated three times and focused on specific stand level questions. Each Division will establish two or three comparison blocks over the next 4 years (15 total, company wide). Each block will have 4 or 5 treatments: clearcut, uncut (old growth or 2nd growth), and two or three variable retention alternatives (20 ha minimum size for each treatment).

In addition to this intensive and extensive framework the AM Working Group is refining the criteria and indicator approach summarized below: The refinements will be focusing on implementation of a scoring and a management action threshold system. The linking of monitoring back to management action is a fundamental component of an effective operational AM program.

Indicator 1 The distribution and abundance of species are maintained in four main geographic areas of Weyerhaeuser's BC Coastal tenure:

- the drier southeast Vancouver Island,
- the west coast-rain forest of Vancouver Island,
- the higher elevations and northern part of Vancouver Island, and
- the isolated Mid-Coast and Queen Charlotte Islands

Indicator 2 The amount, distribution and heterogeneity of habitat and landscape elements important for biodiversity are maintained over time.

Indicator 3 Ecologically distinct habitat types are represented across Weyerhaeuser's BC Coastal tenure, to maintain lesser known species and ecological functions.

4.4.3 Enhanced Forest Management Pilot Project [EFMPP]

The EFMPP was initiated with FRBC funding and is a combined Weyerhaeuser/Government initiative to develop a silvicultural investment strategy integrated with a total resource harvest plan for the Block 2, TFL39. Phase 1 of the project was completed during 1998/99 with an analysis of the social and economic impact of spatial harvest constraints with clearcutting as the assumed harvest method. The results indicated Forest Ecosystem Networks and adjacency were the largest spatial constraints and a spatial silviculture investment plan was developed to address these constraints and potentially relieve their AAC impact.

Subsequent to this, Weyerhaeuser has initiated a strategy to shift its harvest and silviculture systems from clearcutting to variable retention distributed within a framework of Stewardship Zones across all its tenures.

This led the Steering Committee to request a re-analysis of Block 2 forecasting and spatial constraint impacts under variable retention systems. During 1999 the spatial harvest-scheduling tool was re-built to allow computer generated blocking and to facilitate scheduling of retention harvest systems. The habitat supply model was also re-built by increasing the resolution to 1/100 ha, simulating retention within stands and simulating wind and fire as natural disturbances (for baseline comparisons). In early 2000 spatial and aspatial harvest schedules will be generated to facilitate the strategic analysis. A subset of the spatial schedules will be used for habitat supply analysis.

In addition, the Steering Committee requested the development and implementation of an Adaptive Management and Monitoring program to assess impacts of implementation of retention systems (refer to the notes on Adaptive management and Monitoring).

4.4.4 Landscape Unit Planning

Landscape reporting for old growth availability by BGC variant was completed and distributed to each operation. These reports highlighted the landscape units and variants that were short of the Old Growth targets. These reports and other associated mapping will be used in the formal process of Landscape Planning that was announced in October 1999 with release of the landscape Planning Guidebook. Training on the implementation of the Guidebook will occur during early 2000.

A related activity was the establishment of a Zoning Review Team to evaluate the impacts and options available under implementation of VR for landscape units with Intermediate Biodiversity Emphasis that have been designated as Timber Stewardship Zones under the Forest Project. This team consists of MELP and MoF representatives and Weyerhaeuser staff. Five example landscape units have been chosen to evaluate and analysis is underway.

4.4.5 Recreation/Landscape

Weyerhaeuser has built and maintains a number of campsites throughout TFL 39. The following activities were reported for 1999.

- **Eve River:** A total of eight sites were maintained at the Junction Pool (5), Tsitika Crossing (2) and Montague Creek(1) locations

- **Queen Charlotte:** A total of three sites in the Ferguson area were maintained by Queen Charlotte Timberlands.

- **Port McNeill:** The campsites maintained by Port McNeill are all located in Block IV. Six additional RV sites were added to the Clint Beek Recreation Site (making a total of 13). Other sites maintained include locations at Rupert Arm (2), Alice Lake (4), Kathleen Lake (4), and Maynard Lake (2).

- **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. All of these sites were maintained in 1999.

4.4.6 Wildlife

Wildlife management focused on assessment of important habitat. Mountain goat winter ranges and grizzly bear habitat areas in Stillwater (TFL 39, Blocks 1 and 5) were mapped using air photos. Ground truthing will be completed in 2000. These studies were completed in cooperation with the BC Wildlife Federation.

During 1999 Weyerhaeuser, through FRBC funding, was involved in three studies on Marbled Murrelets and Northern Goshawks. They included:

- Landscape-level habitat suitability mapping for Marbled Murrelets and Queen Charlotte Goshawk on the Queen Charlotte Islands.

- Population inventory of Northern Goshawk on Vancouver Island.

- Nesting habitats, abundance and ecology, of Marbled Murrelets on the B.C. Coast [Desolation Sound area].

The first two studies have been managed by the MoELP, and the third by Simon Fraser University.

4.4.7 Hydrology

Weyerhaeuser participated in a FRBC Project to establish a hydrometric station to collect flow data on the Benson River in Block IV. The information will be added to the Ministry of Environment Lands and Parks database containing all hydrometric and climatic information available from hydrometric and weather stations located in the Vancouver Island Region.

4.4.8 Soils

Woodlands Waste Management Standard

The Weyerhaeuser B.C. Coastal Woodlands Waste Management Standard was issued jointly by Environmental Services and Nanaimo Woodlands in 1998. The standard was developed to reduce the environmental impacts and liabilities associated with all aspects of waste management and in particular the ongoing problems of landfill fires, leachate and costly landfill closure requirements. Requirements for the storage and disposal of various waste materials are outlined and new 'best management practices' are proposed for implementation at all Divisions to reduce short term and long-term environmental risks from landfills, dryland sorts, debris burn sites, shops and camps.

In 1999, the first major revision was completed and posted to the website. Key changes include a new section outlining the key elements of an Operating and Closure Plan, less stringent sideslope requirements, making the firebreak requirement optional and the addition of a template for a Fire Response Plan.

Landfill Spatial Database

Following the inventory in 1996 of all Weyerhaeuser Coastal B.C.'s active and inactive landfill sites, a database was developed to store the information collected. In 1999, this was taken a step further to develop a database that was spatially driven. In the spatial database, the landfill sites are displayed graphically, allowing the user to select individual sites and display available data.

5.0 Timber Processing

The following table lists the primary destinations for logs from TFL 39 in 1999. The total volume varies slightly from the billed volume because of differences in reporting periods.

In 1999, 47% of TFL 39 log volumes went directly to company sawmills and 25% (pulplogs) went to Pacifica's mill in Powell River. Of the 28% that is categorized as resale, almost a quarter were delivered to Fields Sawmills in Courtenay (as part of a log supply agreement between Weyerhaeuser and Fields) and over a half went to sawmills and cedar shake mills in the Vancouver/Fraser Valley area. These external sales are offset to some extent by mill purchases as logs are traded to better suit mill requirements.

Destination	1999 estimate (000 m^3)	% of TFL 39 Harvest
Weyerhaeuser sawmills:		
Alberni Pacific, Port Alberni	273	9.0%
Somass, Port Alberni	57	1.9%
Chemainus	120	3.9%
Island Phoenix, Nanaimo	141	4.6%
New Westminister	273	8.9%
Canadian White Pine,	280	9.2%

Vancouver		
Custom Cut	299	9.8%
Pacifica, Powell River	759	24.9%
Resale:		
Fields	187	6.1%
Other Vancouver Island	121	4.0%
Vancouver Area	461	15.1%
Other	80	2.6%
Total	**3,051**	**100%**

6.0 Employment and Economic Opportunities

Forest Renewal BC (FRBC)

Weyerhaeuser and FRBC have a 5-year Multi-Year Agreement (MYA) that extends through until March of 2003. During 1999, funding for projects in TFL 39 totaled $8 381 288. The wide range of funded activities included silviculture (e.g. brushing and weeding, juvenile spacing and pruning), assessments, inventories, stream rehabilitation and road deactivation. More details on the type of projects funded are described in Appendix I, Table 12.

First Nations

Relationships between Weyerhaeuser and local communities are important. Employment objectives include moving towards achieving a work force that broadly reflects the demographics of the local communities in which operations are located. Local Weyerhaeuser managers are responsible for developing relationships with local communities including First Nations.

Weyerhaeuser is currently developing business relationships and opportunities with several First Nation's groups in TFL 39. These relationships will be based on sound business practices. The focus is on capacity building (training – development of skills) and on building enduring business relationships.

The company is preparing a submission seeking to recover the 5% reduction in crown AAC resulting from the transfer of tenures to Weyerhaeuser. A major component of this proposal will center on building enduring business relationships with local First Nations groups.

First Nations partners in the FRBC Multi-Year Agreement include the Sliammon, KwaKuitl Laich-Twil-Tach, Musgamagw, Heiltsuk, Quatsino and Haida. During 1999 they were involved in pile burning and broadcast burning, planting, brushing, spacing, pruning and in-stream work projects.

7.0 Knowledge Gaps

The discussion on knowledge gaps focuses on two subjects. In the first, the initiative for moving to variable retention has only recently been announced. As with any new approach there are areas of uncertainty and the following summarizes the approach for addressing these concerns. In the second theme, recent developments will over time reduce uncertainties in strategic assumptions by providing a direct link between operational practices and strategic assumptions.

Variable Retention

Issue:

The Forest Project was announced in June of 1998 (refer to section 4.4.1). Major components of this strategy include phasing out clearcutting to be replaced by variable retention and an increase in conservation of old-growth forests and wildlife habitat. The new approach is based on the best knowledge available at this time, on input from experts on forest biology, silviculture and timber harvesting.

To ensure success of the strategy, it is necessary to determine the effectiveness of the new forest practices at achieving management goals including sustaining biological richness and ecosystem productivity. The impact of variable retention on growth of the regenerated forest and forest health (including wind damage) are uncertain.

Strategy:

An Adaptive Management Working Group (AMWG) has been formed to guide the development and implementation of a monitoring system and adaptive management framework. The AMWG consists of a group of respected scientists from the MoELP, MoF, UBC Centre of Applied Conservation Biology and Weyerhaeuser. The preliminary monitoring framework includes both extensive and intensive activities. These are summarized in section 4.4.2.

Additional efforts in monitoring wind damage in variable retention blocks and in developing wind hazard predictions are planned for the period 2000 – 2001. Growth and yield studies have and will be initiated to assess the impacts of forest edges on tree growth. These include gradient analyses along transects and a random sampling design.

Strategic Timber Supply Assumptions

Issue:

Often there has not been strong feedback from operations to strategic planning. The main difficulty has been a lack of direct connection between strategic and operational spatial data. E.g. how does the area of timber unharvested on terrain class IV soils compare with assumptions made in Management Plan Timber Supply Analysis? The same type of question also applies to riparian areas,

wildlife tree patches, recreation areas, culturally modified trees and now with the Forest Project incremental reserves with variable retention

Strategy:

Changes are occurring in data management and planning procedures that will allow direct comparisons of strategic assumptions and operational reality. Weyerhaeuser BC Coastal Group is focusing on developing and using digital tools for operational planning. This has included shifting its GIS from a centralized location out to the Timberlands Operations, and the acquisition or development of an appropriate data base structure and planning tools. Development of such a digital (and spatial) operational data set will provide a basis for comparison with strategic assumptions including those on net-downs for riparian reserves, wild life tree patches etc. It is expected that sufficient operational data will be available within five years for useful comparisons.

8.0 Administration

8.1 Transfer of TFL 39 from MacMillan Bloedel Limited to Weyerhaeuser

On June 21, MacMillan Bloedel Limited and Weyerhaeuser announced an agreement to merge the two companies. After regulatory (Canadian and US) and shareholder approvals, MB became part of Weyerhaeuser on November 1, 1999. The coastal operations are now known as the Weyerhaeuser B.C. Coastal Group.

Under section 56 of the Forest Act, the licensee (company) AAC attributable to crown land is reduced by 5%, 14 days after consent is given for a tenure transfer. The Minister of Forests gave consent for the transfer of TFL 39 to Weyerhaeuser on October 29, 1999. Hence effective from November 12, 1999, the company AAC attributable to crown land has been reduced by 152 522 m^3 to 2 897 920 m^3. In total (attributable to crown land and to private land and timber licences), the company AAC allocation is reduced from 3 577 782 m^3 to 3 425 260 m^3.

Under Section 56.1 of the Forest Act, Weyerhaeuser is preparing a submission that includes a job creation plan and requests an increase in company AAC equivalent to the 5% reduction.

8.2 Management Plan Process

Public and MoF input was received on the draft Statement of Management Objectives, Options and Procedures (SMOOP) and the Objectives and Strategies for Employment and Economic Opportunities (EEO), distributed for review in December of 1998. Changes were made and the resulting proposed SMOOP and EEO, together with a report on public comments were submitted to the Regional Manager of the Vancouver Forest Region in April 1999. Approval for the SMOOP and EEO was received in June of 1999.

The draft Information Package for the MP #8 Timber Supply Analysis was submitted in October 1999.

In November of 1999, a submission was sent to the Deputy Chief Forester seeking a six-month extension to the MP #8 process, allowing completion by June 30, 2001 instead of by December 31, 2000.

The extension to June 30, 2001 coincides with the end of the MP #7 period (from July 1, 1976 to June 30, 2001). Earlier, in 1997 it had been agreed that the MP #7 process would be brought forward by six months to more evenly smooth the anticipated workload for ministry personnel. The request for the six-month extension (back to the original time table) was approved in February 2000.

8.3 Forest Development Plans

Forest Development Plans (FDPs) were prepared by all four operations in TFL 39. Open houses for public review of FDPs were held at Masset, Port Clements, Sandspit and Skidegate in the Queen Charlotte Islands, Port McNeill and the North Island Timberlands office (near Campbell River) on Vancouver Island and at Sechelt on the Sunshine Coast.

APPENDIX I - Table 1a

TFL 39 Volume Harvested in 1999
Based on Cut Control Letter Issued by Vancouver Forest Region
Volumes (m^3)

Block	Timberlands Operation	Tenure	Ha	Fir	Pine	Cedar	Cypress	Spruce	Hemlock	Balsam	Decid	Total Billed	Residue	Total Cut Control
I	Stillwater	Private	86	55 874	3	9 417		133	7 648	140	2 079	75 294		75 294
		TL												
		Crown	519	194 452	163	99 716	13 877	75	107 425	20 908	19 487	456 103	21 874	477 977
		Total	605	250 326	166	109 133	13 877	208	115 073	21 048	21 566	531 397	21 874	553 271
II	North Island	Private												
		TL	371	29 255	196	66 715	9 839	230	114 996	66 854	7	288 092	4 845	292 937
		Crown	1 014	51 704	361	59 618	57 578	7 498	375 817	231 649	3 783	788 008	21 491	809 499
		Total	1 385	80 959	557	126 333	67 417	7 728	490 813	298 503	3 790	1 076 100	26 336	1 102 436
III	Port McNeill	Private	1			1	1	61	796	2		861		861
		TL	12			4 099	571		3 561	363		8 594	801	9 395
		Crown	175	1 388	1	3 722	1	3 037	100 974	11 803	184	121 110	1 542	122 652
		Total	189	1 388	1	7 822	573	3 098	105 331	12 168	184	130 565	2 343	132 908
IV	Port McNeill	Private	63	8	1 608	27 419	143	1 125	11519	1 531	2	43 355	391	43 746
		TL	113	782		13 900	959	135	40079	22 151	10	78 016	2 465	80 481
		Crown	292	1 693	54	33 441	16 083	2 771	102070	44 782	27	200 921	11 123	212 044
		Total	468	2 483	1 662	74 760	17 185	4 031	153 668	68 464	39	322 292	13 979	336 271
V	Stillwater	Private												
		TL	4	123		3 479	5	2	958	19		4 586		4 586
		Crown	111	17 931	54	38 195	6 157	390	45 893	25 987	1	134 608	6 120	140 728
		Total	115	18 054	54	41 674	6 162	392	46 851	26 006	1	139 194	6 120	145 314
VI	QCD	Private	11		1 445	3 299	2	236	2 928			7 910	463	8 373
		TL	61		3	23 957	2 641	5 299	10 452			42 352	1 320	43 672
		Crown	1 058		9 331	261 553	74 173	103 333	288 775		715	737 880	39 540	777 420
		Total	1 130		10 779	288 809	76 816	108 868	302 155		715	788 142	41 323	829 465
VII	Port McNeill	Private												
		TL												
		Crown	141		11	32 082	25 870	3 263	32 391	17 487	2	111 106	3 978	115 084
		Total	141		11	32 082	25 870	3 263	32 391	17 487	2	111 106	3 978	115 084
	ALL	Private	162	55 882	3 056	40 136	146	1 555	22 891	1 673	2 081	127 420	854	128 274
		TL	561	30 160	199	112 150	14 015	5 666	170 046	89 387	17	421 640	9 431	431 071
		Crown	3 310	267 168	9 975	528 327	193 739	120 367	1 053 345	352 616	24 199	2 549 736	105 668	2 655 404
		Total	**4 033**	**353 210**	**13 230**	**680 613**	**207 900**	**127 588**	**1 246 282**	**443 676**	**26 297**	**3 098 796**	**115 953**	**3 214 749**

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Appendix I - Table 1b

TFL 39 Logged Hectares
by Silvicultural System - 1999
As Reported by the Timberlands Operations

Silvicultural System and Variant		Hectares Logged
Non Variable Retention		
Clearcut		1,713
	With Reserves	1,303
Total Non Variable		3,016
Variable Retention		
Retention	Group	612
	Dispersed	135
	Group and Dispersed	216
	Subtotal	963
Patch Cut	Group and Dispersed	8
Shelterwood	Strip	6
Seed Tree	Dispersed	31
	Group and Dispersed	9
	Subtotal	40
Total Variable Retention		1,017
Grand Total		4,033
Percent Variable Retention		25%

Appendix I - Table 1c

TFL 39 Volume Harvested by Operability Class - 1999

As Reported by the Timberlands Operations [(1)]

Excludes Residue

Volumes (m^3)

	First Growth			Second Growth		
Block	Conventional	Non-conventional	Marg. Economic	Conventional	Non-conventional	Total
I	26,774	109,108		306,981	36,267	479,130
II	631,714	285,513	2,146	178,747		1,098,120
III, IV	279,465			204,691		484,156
V	64,834	38,637				103,471
VI	627,250	46,823	24,406	46,882		745,361
VII	46,223	52,936		3,468		102,627
Total	**1,676,260**	**533,017**	**26,552**	**740,769**	**36,267**	**3,012,865**

[(1)] Volume data (m^3) based on Timberlands Operations records and may not agree with official BCFS billed volumes due to differing year-end dates.

2-Aug-00

APPENDIX I - Table 2

TFL 39 SBFEP Timber Harvested - 1999
Based on Billing from Vancouver Forest Region
Volume (m^3)

BCFS District	Total Volume
Mid Coast	47 578
Port McNeill	5 596
Queen Charlotte	48 045
Total	**101 219**

2-Aug-00

APPENDIX I- Table 3

TFL 39 Road Construction Report - 1999

Block	Timberlands Operation	New Construction (km)			Debuilt Road (1) (km)
		Mainline Branch	Spur	Other	
I	Stillwater	6.2	33.6		
II	Eve		20.1		0.5
	Kelsey Bay	1.9	28.1		0.1
	Menzies Bay	0.6	14.8		0.5
	Total	2.5	63.0		1.1
III	Pt McNeill	10.9	1.8		
IV	Pt McNeill	20.6	2.7		
V	Stillwater		7.7		
VI	QC	7.3	74.1		5.0
VII	Pt McNeill	5.9	0.8		
	Total	**53.4**	**183.7**		**6.1**

(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.

2-Aug-00

APPENDIX I - Table 4

TFL 39 Fire Report - 1999

Block	Timberlands Operation	Number and Causes of Fires									
		Lightning		Escape Slash		Operational		Public		Total	
		No.	Ha	No.	Ha	No.	Ha	No.	Ha	No.	Ha
I	Stillwater	3	Spot					2	Spot	5	
II	Menzies Bay					1	22.1			1	22.1
VI	QC					1	1.0			1	1.0
	Total	**3**				**2**	**23.1**	**2**		**7**	**23.1**

Block	Operation	Area Burned by Forest Fires (ha)				
		Mature	Immature	AAR	NSR	Total
I	Stillwater		Spot			Spot
II	Menzies Bay				22.1	22.1
VI	QC		1.0			1.0
	Total		**1**		**22.1**	**23.1**

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APPENDIX I - Table 5

TFL 39 Site Preparation - 1999
(Hectares)

Block	Timberlands Operation	Tenure	Broadcast Burn	Burn Accum.[1]	Mechanical	Three Metre Knockdown	Drainage Restore	Total Hectares
I	Stillwater	Private		3		4		7
		Crown		20				20
		Total		23		4		27
II	Eve River	Private						
		Crown		2	4	20		26
		Total		2	4	20		26
	Kelsey Bay	Private						
		Crown		18	15			33
		Total		18	15			33
	Menzies Bay	Private						
		Crown		1	5			6
		Total		1	5			6
	Total	Private						
		Crown		21	24	20		65
		Total		21	24	20		65
III	Port McNeill	Private						
		Crown		6	6			12
		Total		6	6			12
IV	Port McNeill	Private						
		Crown	29	60	33		6	128
		Total	29	60	33		6	128
V	Stillwater	Private						
		Crown		3				3
		Total		3				3
VI	QC	Private						
		Crown		1	60	233	103	397
		Total		1	60	233	103	397
VII	Port McNeill	Private						
		Crown		27	8			35
		Total		27	8			35
	All Blocks	**Private**		**3**		**4**		**7**
		Crown	**29**	**138**	**131**	**253**	**109**	**660**
		Total	**29**	**141**	**131**	**257**	**109**	**667**

[1] Actual hectares of roadside accumulations burned.

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APPENDIX I - Table 6

TFL 39 Summary of Planting - 1999
(000s of trees)

		Timberlands Operation											
		Bk I	Bk II				Bk III	Bk IV	Bk V	Bk VI	Bk VII	Grand
		Stillwater	Eve	Kelsey	Menzies	Total	McNeill	McNeill	Stillwater	QC	McNeill	Total
Type of Planting	Species	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	6.3										6.3
	Ba	4.0	46.7	14.8	0.2	61.7	7.0	24.4	3.2		20.2	120.5
	Bg				0.3	0.3						0.3
	Cw	161.6	96.9	36.2	9.5	142.6	61.2	150.0	46.3	66.0	80.9	708.6
	Cy	34.2	65.9	57.0	10.5	133.4	10.4	158.3	18.2	38.1	38.4	431.0
	Df	321.1	20.4	102.1	37.7	160.2	6.1	8.4	0.5		5.8	502.1
	Ds							3.6				3.6
	Hm		4.3	20.5		24.8						24.8
	Hw	9.9	104.3	140.8	69.3	314.4	13.9	24.4	48.2	192.3	28.4	631.5
	Pl									37.7		37.7
	Ss							4.6		405.7	26.0	436.3
	Sx		3.0			3.0						3.0
	Total	**537.1**	**341.5**	**371.4**	**127.5**	**840.4**	**98.6**	**373.7**	**116.4**	**739.8**	**199.7**	**2 905.7**
Fill	Ax	3.7										3.7
	Ba		4.6			4.6		9.4	4.3		0.2	18.5
	Cw	15.9	3.4	0.5		3.9			6.5	1.6	2.2	30.1
	Cy		0.1	26.0	1.5	27.6				9.7	0.5	37.8
	Df	5.0	10.2	15.1	1.6	26.9						31.9
	Hw		10.1	15.7	2.0	27.8		2.4	8.3	15.1		53.6
	Ss									27.5	0.5	28.0
	Ct							3.5				3.5
	Total	**24.6**	**28.4**	**57.3**	**5.1**	**90.8**		**15.3**	**19.1**	**53.9**	**3.4**	**207.1**

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Appendix I - Table 7

TFL 39 Hectares Planted - 1998
(hectares)

Block	Timberlands Operation	Tenure	Normal	Fill	Total Hectares	Plant + Fertilize
I	Stillwater	Private	46	7	53	53
		Crown	350	52	402	445
		Total	396	59	455	498
II	Eve River	Private				
		Crown	305	25	330	89
		Total	305	25	330	89
	Kelsey Bay	Private				
		Crown	268	68	336	189
		Total	268	68	336	189
	Menzies Bay	Private				
		Crown	143	5	148	109
		Total	143	5	148	109
	Total	Private	0	0	0	0
		Crown	716	98	814	387
		Total	716	98	814	387
III	Port McNeill	Private				
		Crown	95		95	70
		Total	95		95	70
IV	Port McNeill	Private	31		31	24
		Crown	331	20	351	219
		Total	362	20	382	243
V	Stillwater	Private				
		Crown	117	34	151	151
		Total	117	34	151	151
VI	QC	Private	27		27	
		Crown	1 014	68	1 082	938
		Total	1 041	68	1 109	938
VII	Port McNeill	Private				
		Crown	173	8	181	23
		Total	173	8	181	23
All	**Total**	**Private**	**104**	**7**	**111**	**77**
		Crown	**2 796**	**280**	**3 076**	**2 233**
		Total	**2 900**	**287**	**3 187**	**2 310**

Note: Planted and Fertilize hectares included in hectares planted.

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APPENDIX I - Table 8

TFL 39 Plantation Survival And Regeneration Performance Report - 1999

Block	Timberlands Operation	Natural			Plantation		
		Examined (ha)	Stocked (ha)	Percent Stocked	Examined (ha)	Successful (ha)	Percent Successful
		Stocking Survey			Survival Survey (First Year)		
I	Stillwater	270	22	8	510	509	100
II	Eve	310	43	14	339	333	98
	Kelsey Bay	1 120	114	10	992	956	96
	Menzies Bay	34	34	100	220	212	96
	Total	1 464	191	13	1 551	1 501	97
III	Pt McNeill	13	13	100			
IV	Pt McNeill				146	146	100
V	Stillwater	83	20	24	53	53	100
VI	QC	626	532	85	1 977	1 922	97
VII	Pt McNeill				65	65	100
	Total	**2 456**	**778**	**32**	**4 302**	**4 196**	**98**

		Regeneration Performance (Third Year)			Regeneration Performance (Third Year)		
I	Stillwater	69	64	93	761	761	100
II	Eve				340	320	94
	Kelsey Bay	87	79	91	862	855	99
	Menzies Bay				818	796	97
	Total	87	79	91	2 020	1 971	98
III	Pt McNeill	112	111	99			
IV	Pt McNeill	24	24	100			
V	Stillwater				154	148	96
VI	QC	1 469	1 365	93			
VII	Pt McNeill	67	67	100	37	37	100
	Total	**1 828**	**1 710**	**94**	**2 972**	**2 917**	**98**

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Appendix I - Table 9

TFL 39 Stand Tending - 1999
(hectares)

Block	Timberlands Operation	Tenure	Brushing/ Weeding	Spacing	Fertilize	Plant + Fertilize	Pruning	Total Hectares
I	Stillwater	Private	71		2	53		126
		Crown	859	100	15	445		1 419
		Total	930	100	17	498		1 545
II	Eve River	Private						
		Crown	125	201		89	20	435
		Total	125	201		89	20	435
	Kelsey Bay	Private						
		Crown		7		189		196
		Total		7		189		196
	Menzies Bay	Private						
		Crown		3	182	109		294
		Total		3	182	109		294
	Total	Private						
		Crown	125	211	182	387	20	925
		Total	125	211	182	387	20	925
III	Port McNeill	Private						
		Crown			35	70		105
		Total			35	70		105
IV	Port McNeill	Private				24		24
		Crown	23	25	662	219		929
		Total	23	25	662	243		953
V	Stillwater	Private						
		Crown	363	17		151		531
		Total	363	17		151		531
VI	QC	Private						
		Crown	139			938		1 077
		Total	139			938		1 077
VII	Port McNeill	Private						
		Crown				23		23
		Total				23		23
All	**Total**	**Private**	**71**		**2**	**77**		**150**
		Crown	**1 509**	**353**	**894**	**2 233**	**20**	**5 009**
		Total	**1 580**	**353**	**896**	**2 310**	**20**	**5 159**

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Appendix I - Table 10

TFL 39 Erosion Control Seeding - 1999
(Hectares)

Block	Timberlands Operation	Hydro Seeding	Dry Seedling	Total Hectares
I	Stillwater	45		45
II	Eve River	16	11	27
	Kelsey Bay	21	6	27
	Menzies Bay	10		10
	Total	47	17	64
IV	Port McNeill	21		21
V	Stillwater	25		25
VI	QC		160	160
VII	Port McNeill	21	6	27
All	**Total**	**159**	**183**	**342**

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APPENDIX I - Table 11

TFL 39 Miscellaneous Stand Surveys and Assessments - 1999
(hectares)

Block	Timberlands Operation	Pre-log Prescript	Post-log Prescript	Stand Maintenance Prescript	Post-Treatment Evaluation	Free Growing	Total Area Assessed
I	Stillwater	700	204	1 200	700	542	3 346
II	Eve River	563	229	932	313	940	2 977
	Kelsey Bay	497	828		35	2 937	4 297
	Menzies Bay	353	84		29	93	559
	Total	1 413	1 141	932	377	3 970	7 833
III	Port McNeill	31	83				114
IV	Port McNeill	249	330	528		5 917	7 024
V	Stillwater	150	18	150	100	48	466
VI	QC		1 162			2 259	3 421
VII	Port McNeill	142		189		162	493
	Total	**2 685**	**2 938**	**2 999**	**1 177**	**12 898**	**22 697**

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APPENDIX I - Table12

TFL 39 Funding Credits - 1999

Block	Operation	Source	Activity/Description	$	Ha	Km
I	Stillwater	FRBC	Brushing and Weeding	44 571	42	
		FRBC	Detailed Assessment - Riparian	14 934	22	
		FRBC	Detailed Assessment - Instream	22 040		1
		FRBC	Detailed Assessment - Upslope Roads	21 256		37
		FRBC	Juvenile spacing	212 027	100	
		FRBC	Planting	38 136	39	
		FRBC	Road Deactivation	532 314		38
		FRBC	Enhanced Forestry Surveys	4 223		
		FRBC	Backlog Forestry Surveys	44 878	1 277	
		FRBC	Terrain EcoSys Mapping	97 676		
		FRBC	Water Quality Test (5)	13 652		
		Total		1 045 707	1 480	76
II	North Island Timberlands	FRBC	Brushing and Weeding	150 038	147	
		FRBC	Detailed Assessment - Instream	947		
		FRBC	Detailed Assessment - Upslope Roads	101 315		68
		FRBC	Enhanced Forest Model Project	126 892		
		FRBC	Fertilization	151		
		FRBC	Fish Habitat Assessment	57 189		345
		FRBC	Fish Inventory	3 958		
		FRBC	Juvenile spacing	596 114	174	
		FRBC	Monitor/Evaluate Upslope	1 709		
		FRBC	Planting	9 444	20	
		FRBC	Pruning	153 666	58	
		FRBC	Road Deactivation	650 564		54
		FRBC	Riparian Treatment	83 114	26	
		FRBC	Stream Rehab	68 107		
		FRBC	Enhanced Silvics Studies	442		
		FRBC	Enhanced Forestry Surveys	38 789		
		FRBC	Backlog Forestry Surveys	82 317	185	
		FRBC	Terrain EcoSys Mapping	198 673		
		FRBC	Wildlife Inventory	117 994	176	
		Total		2 441 423	786	467
III, IV	Pt McNeill	FRBC	Brushing and Weeding	113 760	82	
		FRBC	Detailed Assessment - Riparian	7 220		
		FRBC	Detailed Assessment - Instream	6 580		5
		FRBC	Detailed Assessment - Upslope Roads	62 599		
		FRBC	Fertilization	238 245	388	
		FRBC	Fish Inventory	65 117		209
		FRBC	Juvenile spacing	71 024	23	
		FRBC	Overview Assessment	313		
		FRBC	Road Rehab	343 317		21
		FRBC	Stream Rehab	14 496		
		FRBC	Backlog Forestry Surveys	1 127		
		FRBC	Backlog Forestry Surveys	60 807		
		FRBC	Water Restoration Training (MoF)	21 707		
		FRBC	Water Quality Test (1)	5 515		
		Total		1 011 827	493	235

APPENDIX I - Table12

TFL 39 Funding Credits - 1999

Block	Operation	Source	Activity/Description	$	Ha	Km
V	Stillwater	FRBC	Brushing and Weeding	36 451	38	
		FRBC	Detailed Assessment - Upslope Roads	34 469		41
		FRBC	Juvenile spacing	70 245	43	
		FRBC	Planting	35 132	18	
		FRBC	Road Deactivation	300 503		14
		FRBC	Backlog Forestry Surveys	30 729	361	
				507 529	460	55
VI	QC	FRBC	Archaeological Inventory Studies (1)	91 415		
		FRBC	Brushing and Weeding	869 881	597	
		FRBC	Detailed Assessment - Riparian	19 208	110	
		FRBC	Detailed Assessment - Instream	88 892		23
		FRBC	Detailed Assessment - Upslope	43 273	50	
		FRBC	Detailed Assessment - Upslope Roads	175 725		265
		FRBC	Fish Habitat Assessment	8 706		
		FRBC	Fish Inventory	134 577		103
		FRBC	Hillside Rehab	49 018		
		FRBC	Juvenile spacing	123 613	68	
		FRBC	Planting	38 034	17	
		FRBC	Road Deactivation	1 142 283		117
		FRBC	Stream Rehab	131 437		4
		FRBC	Backlog Forestry Surveys	25 384	3 400	
		FRBC	Wildlife Inventory	79 809		
		Total		3 021 255	4 242	512
VII	Pt McNeill	FRBC	Detailed Assessment - Instream	23 458		8
		FRBC	Detailed Assessment - Upslope Roads	23 158		17
		FRBC	Fish Inventory	70 417		116
		FRBC	Juvenile spacing	2 664		
		FRBC	Road Deactivation	127 794		8
		FRBC	Stream Rehab	106 056		5
		Total		353 547	0	154
	Total			**8 381 288**	**7 461**	**1 499**

APPENDIX I I - Table 1

Weyerhaeuser Cone Collection - 1999
as of December 31, 1999

Species	Kilograms of Seed			
	Weyerhaeuser Orchards	Contract Orchards	Wild Collections	Total
Ba			25	25
Cw		3		3
Fd	48	38		86
Hw		2		2
Pw			12	12
Total	**48**	**43**	**37**	**128**

Note: There are 133k Yc cuttings in the inventory.

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APPENDIX II - Table 2

Weyerhaeuser Seed Inventory - 1999

Species	Weyerhaeuser Seed Inventory[1]				
	Seed Orchard Seed (gm)	Seed Orchard Control Cross (gm)	Wild Seed[2] (gm)	Total Seed (gm)	Approx. Seedlings (000's)
Ba			359 351	359 351	1 718
Bg			14 354	14 354	171
Bn			35 908	35 908	179
Cw	76		11 625	11 701	2 297
Fd	60 198		11 705	71 903	2 459
Hm			736	736	92
Hw	40 277		37 221	77 498	11 191
Lw			493	493	22
Plc			1 914	1 914	254
Pli			38	38	6
Pw	4 477		1 617	6 094	82
Ss	7 533		2 506	10 039	1 564
Sx			2 912	2 912	370
Sxs			525	525	39
Yc			89 346	89 346	2 655
Total	**112 561**	**0**	**570 251**	**682 812**	**23 099**

[1] Does not include seed from 1999 collections
[2] Wild seed from all seed zones are included

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APPENDIX II - Table 3

Planting Stock Inventory and Sowing Request
as of December 31. 1999

Species	Planting Stock Inventory plus Request (000s of Trees)		
	Spring 2000	Fall 2000 / Spring 2001	Total
Ba	84	266	350
Bg	1		1
Bn	3	40	43
Cw	1 443	2 296	3 739
Dg	2		2
Fd	2 531	3 703	6 234
Hm	7	74	81
Hw	669	1 642	2 311
Plc	281	159	440
Pw	13	210	223
Ss	295	258	553
Sx		7	7
Yc	337	638	975
Total	**5 666**	**9 293**	**14 959**

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