Doman-Western Lumber Ltd.

Tree Farm Licence 19
2001
ANNUAL REPORT

The forest operations in Tree Farm Licence 19 are under an Environmental Management System (EMS) registered as conforming to ISO 14001 standards as issued by QMI, Registration No. 009680

Western Forest Products Limited

Tree Farm Licence 19

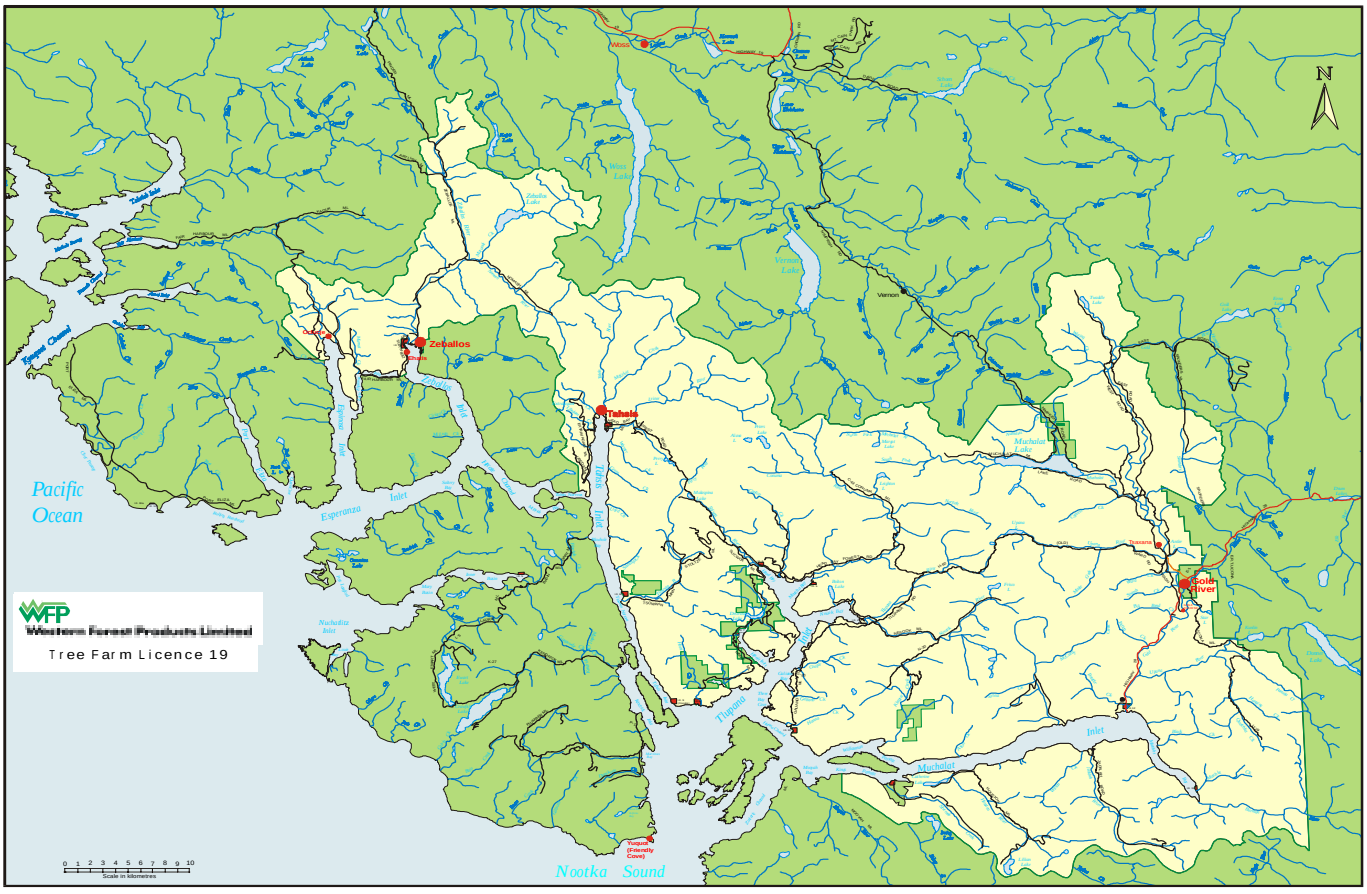
Tahsis Tree Farm Licence 19 held by Doman-Western Lumber Ltd. and managed by Western Forest Products Limited (WFP) was originally granted to Tahsis Company Ltd. on December 23, 1954.

In 1954, under Management Plan No. 1 the licence area was 161,612 hectares and the Company was authorized to harvest 283,170 cubic metres of timber per year. By 1996 the licence area had been increased to 192,551 hectares. With improved utilization standards, updated inventory and productivity estimates and an expanded timber harvesting land base, the allowable annual cut (AAC) was increased to 978,000 cubic metres. The AAC includes an annual Small Business Forest Enterprise Program harvest allocation of 45,868 cubic metres.

Management Plan No. 9 was approved in 2001. The allowable annual cut was reduced to 940,000 cubic metres due to reductions in the amount of old growth available to harvest.

This Annual Report records accomplishments and data for TFL 19 for 2001.

For further information on WFP's Sustainable Forest Management visit our Website at www.westernforest.com



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SUMMARY OF ACTIVITIES AND ACCOMPLISHMENTS

Depletion	Scaled Volume	1 045 767 m^3
	Volume Charged to Allowable Annual Cut	1 086 372 m^3
	Area Logged (Licencee)	1 171.7 ha
	Area Logged (SBFEP)	0 ha
Reforestation	Silviculture Prescriptions	1 231.9 ha
	Site Preparation	4.4 ha
	Seedlings Planted	1 248 436 trees
	Seedlings Fertilized	1 093 436 trees
	Area Planted	1 347.5 ha
	Stocking Surveys	1 007.1 ha
	Brushing and Weeding	90.9 ha
	Plantation Survival Assessments	345.2 ha
	Free Growing Surveys	1 429.9 ha
Stand Management	Stand Management Prescriptions	2 054.0 ha
	Juvenile Spacing	116.3 ha
	Pruning	66.3 ha
	Fertilization	1363.4 ha
Inventory	Cutting Permit Cruising	1409 plots
	Residue Assessment	358 plots
Engineering	Roads Built	101.1 km
	Roads Re-Built	69.3 km
	Roads Maintained	607.1 km
	Roads Deactivated	138.8 km
	Roadside Seeding	0 km
	Site Stabilization	0.1 ha
Protection	Accidental Fires	1
Contracting	Contractor Obligation	497 502 m^3
	Contracted	509 932 m^3
	Compliance	102.5 %
Special Forest Products	Log Salvage	15.0 m^3
	Shake and Shingle	854.7 m^3
	Cypress Cants	30.1 m^3

SUMMARY OF ACTIVITIES AND ACCOMPLISHMENTS

Non Timber Forest Products	Yew Bark	0	kg
	Salal	1894	kg
	Honey	60	litres
	Chanterelle Mushroom	1364	kg
	Pine Mushroom	909	kg
Salmon Enhancement Program	Chinook	89 000	fry
	Coho	0	fry
	Chum	0	fry
	Steelhead	0	fry
Employment	Planning and Development	16,323	Person-days
	Harvesting	47,396	Person-days
	Transportation	8,095	Person-days
	Processing	77,898	Person-days
	Silviculture and Integrated Resource Mgnt	8,381	Person-days
	Administration	6,099	Person-days
	Indirect	328,386	Person-days

1.0 INTRODUCTION

1.1 Statement of Sustainable Forest Management

Western Forest Products Limited is committed to forest management strategies guided by three main principles of sustainability. These reflect economic, social, and environmental values:

- Our operations must be economically viable. Our Company must operate in a financially successful manner to meet shareholders' expectations of a fair return on investment. Our Company must operate in a financially successful manner while maintaining social and environmental commitments.
- Our forest management strategies must be socially beneficial to local, regional, and First Nations' communities. Western Forest Products Limited is committed to respecting, understanding, and supporting First Nations, local community, and employee aspirations for stability and certainty.
- Our activities must be environmentally appropriate. Western Forest Products Limited is committed to the protection of the environment and the sustainable development of the resources under our stewardship. This is achieved through sound forestry and environmental management practices that meet or exceed government standards. Details of commitments under these guiding principles have been outlined in Management Plan 9 for TFL 19. Our commitment to Sustainable Forest Management (SFM) is further supported by Company policies, our ISO 14001 Certification and Environmental Management System, and our forest certification initiatives. This Annual Report summarizes the accomplishments and progress made toward these commitments in 2001.

Two California sea lions provide an interesting foreground for the loading of the Seaspan Forester to transport logs from Nootka Sound. Each year about 90 log barges are loaded to transport logs from Nootka Sound to coastal Company mills.

1.2 Corporate Highlights

- Western Forest Products parent Company, Doman Industries Limited, had a continued difficult financial situation in 2001. The year 2001 started out with poor lumber and pulp prices.
- The Company took extensive downtime and production curtailments in its sawmill, pulpmill and logging operations during the year. Sales decreased to $770 million from $955 million in 2000. A decision was made to write-down capital assets by $292 million. Net loss for 2001 (including write-down) was $413 million compared to a loss of $26.5 million in 2000.
- Lumber sales declined to $355 million from $418 million in 2001 on production of 674 million board feet. Pulp sales declined to $238 million from $382 million in 2000. There was a significant log sales increase to $156 million from $126 million in 2001. Chip and by-product sales were $21 million.
- Timber harvest for the year was in an undercut position with a total harvest of 3.34 million m^3 or 83% of the Company AAC. Stumpage payments decreased significantly to $58.3 million or an average of $19.13/$m^3$ a decline of 6.15/m^3 (24%) from the $25.28/$m^3$ in average in 2000.
- The Market Pricing System (MPS) for coastal hemlock cutting permits saved an estimated $10 million during the year and further major stumpage reforms are expected during 2002.
- A new provincial government was elected in May 2001 and made several commitments to improve the competitiveness and return profitability to the coastal forest sector.
- Several major government policy changes were announced following the provincial election that will affect the Company's operations. A new Forest Investment program will begin in early 2002, and after eight years of operation Forest Renewal BC will be eliminated. As of December 31, 2001 more than $90 million has been paid by the Company into the FRBC fund and $80.6 million was spent on field programs. Approximately half were enhanced forestry activities and the balance on watershed restoration and First Nations training. It is expected that the new Forest Investment program will be half as large as the FRBC Program.
- The Company's CEO, Mr. Herb Doman, suffered a severe health setback in the beginning of the year and major management changes occurred as a result. WFP's Vice-President, Vic Woods, retired and was replaced by Berni Zimmermann, who became the General Manager. Rick Doman replaced his father as President of the Company.

- In March 2001 there was an agreement facilitated by the Coast Forest Conservation Initiative as part of the Central Coast LRMP for 22 new candidate protected areas and designated option areas. Approximately 20% of the Company's tenures are located in the Central Coast. This agreement included a commitment by all parties to establish a science team to define ecosystem-based forest management as well as review the future of option areas. The agreement also resulted in a commitment by local and international environmental groups to step down on the market campaigns against coastal companies. Much work remains to be completed on this project but the basic framework has been resolved in terms of coastal old growth issues.

- There was an agreement between the Company and the BC government to purchase two of the Company's tenures for use by the government in First Nation's treaty negotiations. The sale was to be conditional on a log supply agreement. This matter eventually became part of a legal action against the government for not completing the tenure purchase.

- As well, legal work continued on the timber licence royalty case against the Crown. The Company also initiated a new legal action over stumpage "water-bedding" by which certain forest companies provided timber species and quality data to the government, which resulted in higher stumpage payments payable by the Company.

- As part of restructuring, the corporate forestry department was relocated to the Campbell River Regional office late in the year following the closure of the Vancouver Head Office. Several staff left the Company and new employees were engaged to maintain GIS capacity for higher level planning, inventory and AAC determinations.

- Late in the year, the Company was successful in achieving CSA Sustainable Forest Management Certification over its Northern Vancouver Island Region tenures. As well, a decision was made to defer the current Forest Stewardship Council (FSC) Certification project in NVIR until regional FSC standards are approved for British Columbia. The Company was also successful in maintaining its ISO 14001 Registration following external and internal audits.

- Terrorist attacks in New York City and Washington, D.C. on September 11th that killed almost 3,000 people further impaired the Company's financial health by causing a severe economic reaction resulting in loss of lumber and pulp demand. By year-end some market recovery was starting but generally commodity lumber and pulp markets continued to be very weak.

1.3 Local TFL 19 Highlights

- During 2001 logging in the TFL operated at approximately 119% of AAC for a total harvest of 1,086,000 m^3 (including residue). By year-end the Company had achieved 86% of the five year AAC in spite of serious underharvest in 1998 and 1999. This was the longest operating season and highest harvest level since the Company took over Tree Farm Licence 19 in 1997. It was also one of the most productive and lowest cost years in recent times.
- Forest Practices Code compliance in 2001 was excellent with a total of 203 inspections and a compliance of 99%. All of the compliance issues in the TFL were minor in spite of the high frequency of inspections compared to other operations.
- In Zeballos a group of community volunteers completed the new fish hatchery in March 2001. About 90,000 chinook fry were transferred to the completed facility and released later in the year in an attempt to rebuild the fish stocks in the north part of the TFL.
- On August 1, 2001 the Chief Forester approved a new AAC for TFL 19. The old AAC was 978,000 m^3 and the new AAC is 940,000 m^3, a 3.9 % reduction.
- MP 9 was also approved and sets out new measures of sustainability that will be reported in a new format in the TFL Annual Report.
- Along with municipal employees Company workers brushed out and lengthened the Zeballos forest trail system adjacent to the Zeballos River.
- A major windstorm hit the Zeballos area and much of the west coast in mid-November. Several areas of significant blowdown occurred in the TFL notably around Zeballos Lake and the ungulate winter range in the Kaouk Valley.
- A large aerial fertilization program was completed on almost 1,350 ha by West Coast helicopters in late 2001.
- At Gold River a major rock and landslide above G-11 wiped out approximately 5 ha of plantation.
- Issues related to the inclusion of private lands not owned by the Company but owned by Bowater Limited were resolved during the year and several parcels of land were withdrawn from Schedule A of Tree Farm Licence 19.
- Nootka Region Operations successfully passed ISO 14001 surveillance audits conducted by the Quality Management Institute. The audits were of the Company's Environmental Management System.

- The watershed restoration program involving development of side channel habitat and instream habitat structures for the Oktwanch and Zeballos Rivers was completed in 2001. A total of 3.0 km and 1.2 km of new side channel habitat has been created for the Oktwanch and Zeballos Rivers respectively.

- Western paid $19.9 million in stumpage for timber harvested in TFL 19 during 2001. This averaged $18.28 per cubic metre harvested.

- A new Road Use Agreement was signed with the Ministries of Forest and Transportation and Highways for the Head Bay Forest Service Road. Western Forest Products contributes a minimum of $130,000 in road improvements per year.

- At Gold River, Mt. Leighton Forestry Services, a First Nations' crew from Tsaxana spaced 74 ha and pruned 66 ha of young second growth stands.

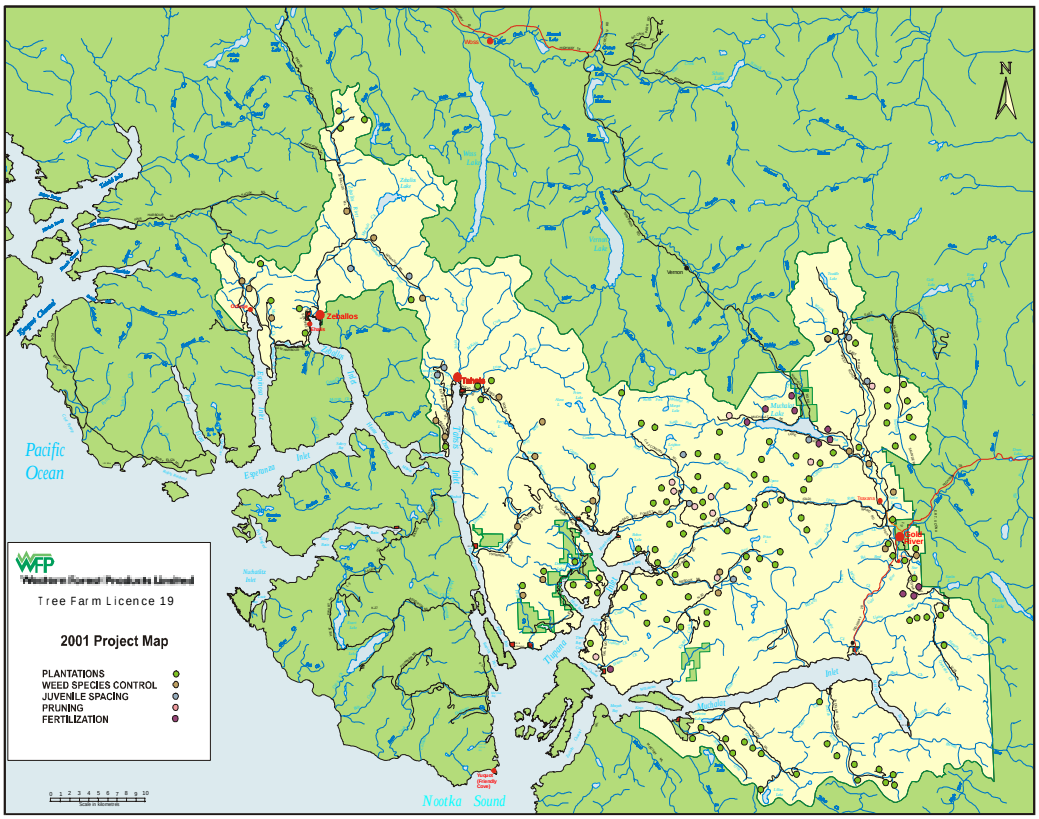
- A study by the Department of Fisheries and Oceans on the Zeballos off-channel project confirmed that this new habitat created by the Company through FRBC had a 92% average egg-to-alevin survival, an exceptional result for the coho and chum spawning.

1.4 Area Description

The Tahsis Tree Farm Licence 19 (TFL 19) is located on the west side of Vancouver Island in the vicinity of Nootka Sound (Location Map). The communities of Gold River, Tsaxana (Mowachat-Muchalaht First Nations), Tahsis, Zeballos, Ehatis (Ehattesaht First Nations) and Oclugjie (Nuchatlaht First Nations) are within the licence area. The forest of TFL 19 lies within the very wet hypermaritime through very dry maritime coastal Western hemlock biogeoclimatic subzones and variants. The dominant timber species are Western hemlock, Amabilis fir, Western redcedar and Douglas-fir. Lesser amounts of Sitka spruce, Yellow cedar and Mountain hemlock also occur.

A summary of TFL 19 land status follows:

		(ha)
Total Area		191,992
	Less nonforest and non-productive forest	-43,814
Total Productive Forest Area		148,178
	Less non-commercial (NP,Br), riparian area, inoperable/inaccessible, wildlife reserves, roads, trails	-53,475
Timber Harvesting Land Base		94,703



2.0 FOREST MANAGEMENT INVENTORY AND PLANNING

2.1 Resource Inventories

Five GIS stations were used for corporate resource inventory mapping and analysis. WFP continues to use Pamap as its GIS system of choice; however, ArcView, Microstation GeoGraphics, FME and World Construction Set are being utilized to perform a multitude of analysis and data processing tasks.

Microstation (CAD) systems are utilized for operational mapping. Currently, there are three full time CAD operators in the Nootka Regional Office. The integration of digital data to and from the mapping contractor has greatly improved efficiencies within the mapping department.

Training opportunities and support provided by PCI Geomatics, Pacific Alliance Technologies and BCIT were used to advance the skills of GIS personnel. Prorated TFL 19 GIS costs totalled $72,146.

The following Table 1 summarizes the overall status of resource inventories completed to date for TFL 19. Sections below expand on work completed in 2001.

Table 1 - Resource Inventories

Item	Status	Plan
Timber Inventory	Completed in 1988 by Reid, Collins and Associates (now Olympic Resource Management). MOF field audit completed in 1999.	Inventory revisions updated annually. New VRI project ongoing and will replace current forest inventory when completed.
Ecosystems	Mapping completed by Madrone Consulting Ltd (Nov 00). Internal review ongoing.	Finalization and quality assurance completed in 2001.
Terrain Stability	Completed in 1997 by Terence Lewis et al.	
Recreation Inventory and Recreation Analysis	Recreation inventory completed in 2000 by Jeremy Webb of Recreation Resources Limited. Includes karst overview.	Update completed in 2000.
Visual Landscape Inventory	Completed by Recreation Resources Limited (Jeremy Webb) in 2000. VQCs considered draft. VQOs updated in 1998 as part of MOF visual impact mitigation program are incorporated into new inventory.	Update completed in 2000.
Stream Classification	FDP process has updated to FPC Riparian Classes for a large part of the TFL.	Stream Inventories - in progress.
Archaeological	Archaeological Overview Assessment completed by Arcas in 1998. Site-specific maps and description on file (held in confidence at request of First Nations).	
Operability	Completed by WFP in 1999.	
20-Year Plan		Submitted and approved as part of MP 9.

2.1.1 Forest Cover and Timber Inventory

Digital files now in the corporate GIS are undergoing updates to reflect past forestry activities. It is expected that the TFL will be updated to January 1, 2002 by April 2002. This update will incorporate changes to forest cover, roads and logging history that occurred during 2001. Silviculture history was restructured within the GIS to allow each silviculture activity to be stored separately. This allows for easier tracking of the different activities on-going in the TFL and removes the need to generalize the data.

Photo interpretation for the new Vegetative Resource Inventory (VRI) began in the later part of 2001. Photo and field calibration work is ongoing and is expected to be completed in 2002. The ground sample phase of this project is expected to occur in 2002. The Vegetative Resource Inventory is designed to replace the current forest inventory and will provide updated and accurate second growth information.

Cost for forest inventory and GIS mapping revision work totalled $104,635.

2.1.2 Terrain Stability

Engineering consultants completed geotechnical analyses of cutblocks and road construction projects throughout TFL 19. Geotechnical assessments are completed in areas where indicated by terrain stability class and engineered to protect sensitive areas. Table 2 presents a summary of analyses by Operation.

Costs for geotechnical analyses are included in logging costs.

Table 2 - Geotechnical Analyses

Operation	Geotechnical Firm	Areas	Roads
GRFO	Thurber Engineering	36	4
	Golder & Associates	1	
NCA	Thurber Engineering	49	44
	Golder & Associates	2	2
Zeballos	Thurber Engineering	3	2
TOTAL		**91**	**52**

2.1.3 Wildlife

The following table is a list of wildlife inventories available for TFL 19. Work carried out in 2001 included a major review of existing and proposed Ungulate Winter Ranges in the TFL as well as fieldwork to assess Marbled Murrelet habitat based on GIS modeling. Funding for these two projects was provided by FRBC.

Table 3 - Wildlife Inventories

Project	Date	Description
Ungulate Winter Ranges	1993	Area critical to deer and elk for food, shelter and reproduction were identified and classed as Ew1. A Ew2 class was also established to indicate areas of potential wildlife use.
Goshawk Nest Surveys	1998 - 2001	Inventory to assess goshawk nesting territory re-occupancy, breeding distribution and nest habitat suitability, and to asses the effectiveness of current inventory methodology. In 2001 a new aspect of this project was added to examine the post fledging area.
Wildlife Habitat Capability/Suitability	1999 - 2001	This project utilized GIS modelling to predict habitat capability/suitability for black bear, black-tailed deer, Roosevelt Elk and Marbled Murrelet. Field assessments of modelled results were the main focus of the 2001 work.
Marbled Murrelet Activity and Habitat Surveys	2001	This study expands on earlier modelling work completed in the TFL. The project focused on site-specific assessments as well as a comparative analysis of nesting habitat predicted by the model and field-based habitat ratings.
Ungulate Winter Range Management Plan Recommendations for TFL 19	2001	This report is currently in draft form. The intent of this project is to gather and assess work completed to date on UWR management, provide recommendation for use in an overall UWR management plan, prioritize UWR that also contain habitat values for other species and identify new, potential high quality winter range within the Zeballos Lake Special Management Zone.

At Twaddle Lake, large elk populations thrive in the diversity of forest-stand ages that sustains prime habitat. A herd of almost 50 animals travels between recent cutblocks on the slopes of Victoria peak and the old growth areas around Twaddle Lake.

2.1.4 Recreation Inventory

The recreation features and recreation opportunity spectrum inventory that was initiated in 2000 was completed in 2001. The inventory information was used in the timber supply analysis for Management Plan 9.

2.1.5 Visual Landscape Inventory

The visual landscape inventory that was initiated in 2000 was completed in 2001.

Western Forest Products' personnel undertook visual impact assessments on 39 areas in the Gold River Forest Operation, Zeballos Forest Operation and Nootka Contract Operation. The Company assesses visual quality concerns in all cutblocks that have an impact on publicly visible landscapes.

2.1.6 Stream Inventory

Stream inventories to Resource Inventory Committee Standards started in 2000 were completed in 2001. Streams inventoried were Kleeptee Creek, Tlupana River, Conuma River, Deserted Creek, Zeballos Lake Sub-basin and Mamat Creek.

Stream classification and assessments completed for the Forest Development Plan are reviewed and fine-tuned during block layout. Consultants were employed in eight blocks (three in Gold River Forest Operation and five in Nootka Contract Operation) where the presence of fish was uncertain. Based on the findings of the stream surveys, riparian areas were engineered to conserve valued resources.

2.1.7 Archaeological Overview Assessment

Archaeological Impact Assessments are conducted on all blocks which have been identified on the archaeological overview assessment as having moderate to high use potential or where features of cultural significance have been identified during layout and planning phases. Arcas Consulting and Coast Forest Management assessed 32 blocks of potential archaeological significance. All defined archaeological resources were conserved in the final engineering of the areas.

2.1.8 Operability

Operability overview mapping for TFL 19 was completed and approved by MOF in 2001. The revised operability was used to help define the timber harvesting land base used in the timber supply analysis for Management Plan 9.

2.1.9 Coastal Watershed Assessments

Six Coastal Watershed Assessments (CWAPs) were done in the Gold River Operation, five in Nootka Contract Operation and two in Zeballos Forest Operation. The CWAPs examine the potential cumulative

effects of past and proposed harvesting activities on watersheds. CWAP findings were incorporated into all planning processes as appropriate.

2.1.10 Karst Inventory

A planning-level karst inventory of TFL 19 to Resource Inventory Committee Standards was initiated in 2001. The inventory will delineate the distribution of karst, identify major karst features and provide vulnerability rating mapping. The information will be used for future forest operations planning, and timber supply analysis.

Non-operational Integrated Resource Management Inventory sections 2.1.3 to 2.1.10 costs amounted to $267,020. Additional costs to complete assessments for operational plans are included in logging costs.

2.2 Strategic and Operational Planning

Operations continue to implement the Vancouver Island Summary Land Use Plan (VISLUP). During 2001 initial harvesting occurred in Special Management Zone 6 (Woss-Zeballos) and 11 (Schoen-Strathcona). Experience gained in 2001 will assist with future operational planning in these Special Management Zones. Management Plan 9 (MP 9) approved in 2001 incorporated objectives of the VISLUP and conditions of the Forest Practices Code.

2.2.1 Landscape Unit Plan Consistency

No landscape unit planning took place in TFL 19 in 2001. The province established new policy guidelines for Landscape Unit Planning and a revised planning schedule has been put in place.

General information regarding the landscape units found within TFL 19 and the proposed timeline to complete the priority biodiversity objective are listed in Table 4.

Table 4 - Landscape Units and Biodiversity Emphasis Options

Landscape Unit	BEO	Gross LU Area (ha)	LU Area (ha) within TFL	Legal Establishment (date to advertise draft order)	Priority
Gold	High	90,527	52,378	February 2003	Medium
Tlupana	Intermediate	43,375	43,143	February 2003	Medium
Burman	Low	46,222	27,971	February 2003	Medium
Kleeptee	Low	15,704	14,768	February 2003	Medium
Tahsis	Low	42,324	29,693	February 2003	Medium
Zeballos	Low	19,237	19,237	February 2003	Medium
Eliza	Low	34,409	5,827	February 2003	Low

2.2.2 Management Plan

On August 1st, 2001 the Chief Forester approved Management Plan 9 for TFL 19. The Management Plan sets out new measures of sustainability that will guide operations during the term of the Plan. The new allowable annual cut for TFL 19 is 940,000 m^3. This represents a 3.9% reduction in cut from the old AAC of 978,000 m^3. The reduction in cut is due to the reduction in the amount of old forest that is available to cut as operational planning requirements of the Forest Practices Code are implemented. Cost of preparing the Plan and related reports was $153,195.

2.2.3 Forest Development Plans

The Gold River Forest Operation 2001 Forest Development Plan was approved in June of 2001. The Nootka Contract Operation received an extension on the approved 1999 Forest Development Plan to May of 2002. The Zeballos Forest Operation 2001 Forest Development Plan was approved in July of 2001 for a twenty-four month period. Work has been initiated for the preparation of the 2002 plan for the Gold River and Nootka Contract Operations.

Of the thirty-seven blocks where harvesting was completed in 2001 the average block size including reserve was 20.2 hectares. Ninety-seven per cent of the blocks were harvested with the silviculture system clearcut with reserves. There was only one block harvested with retention. (Table 5)

In the Gold River watershed in Block K516 grapple yarding proceeds through a corridor for selection/retention logging in order to manage for visual objectives.

Table 5 - Silviculture Systems by Operation

Operation	System	Blocks Harvested (Count)	Average Block Size (ha)	Minimum Block Size (ha)	Maximum Block Size (ha)
Gold River	Clearcut with Reserve	15	21.3	3.8	53.7
	Retention	1	15.4	15.4	15.4
NCA	Clearcut with Reserve	17	21.4	4.4	43.8
Zeballos	Clearcut with Reserve	4	13.6	4.6	20.8
		37	20.5	3.8	53.7

2.2.4 Stand Level Prescriptions

Fifty-four silviculture prescriptions were submitted to the Ministry of Forests in the year (Table 6). The total area for which new silviculture prescriptions were submitted was 1,231.9 ha. Average block size was 22.8 ha on the submitted prescriptions. Total Reserve area was 142.6 ha which is 11.6 per cent of the total block area.

Amendments to silviculture prescriptions reflecting new information or objectives continue to occupy significant amounts of staff time. Forestry costs for new silvicultural prescriptions and amendments to previously submitted prescriptions totalled $75,993. Total cost for silviculture prescriptions, planning and record keeping amounted to $131,119.

Nine stand management prescriptions were submitted to the Ministry of Forests in the year. The total area for which new stand management prescriptions were submitted was 2,054 ha.

Table 6 - Silviculture Prescription Statistics by Operation

Operation	Submitted Silviculture Prescriptions (Count)	Total Area (ha)	Average Block Size (ha)	Minimum Block Size (ha)	Maximum Block Size (ha)	Total Reserve Area (ha)
GRFO/GRCO	24	540.3	22.5	3.8	60.8	50.5
NCA	20	491.2	24.0	5.4	56.3	59.3
Zeballos	10	200.4	20.0	2.8	40.9	32.8
TOTAL	**54**	**1231.9**	**22.8**	**2.8**	**60.8**	**142.6**

Table 7 - Stand Management Prescription Statistics by Operation

Operation	Submitted Stand Management Prescriptions (Count)	Total Area (ha)	Spacing (ha)	Pruning (ha)	Fertilization (ha)	Other (ha)
GRFO/GRCO	7	1993.4	14.8	51.7	1926.9	0
NCA	0	0	0	0	0	0
Zeballos	2	60.6	42.2	0	0	18.4
TOTAL	**9**	**2054.0**	**57.0**	**51.7**	**1926.9**	**18.4**

2.2.5 Cutting Permits

The number of active Cutting Permits in TFL 19 increased from 92 permits in 2000 to 112 permits in 2001. Table 8 lists the active Cutting Permits, expiration dates, and locations.

A total of 1,409 cruise plots were established in TFL 19. Cutting permits and cutting permit cruising costs totalled $187,490.

Table 8 - Active Cutting Permits

CP	Expiry Date	Location	CP	Expiry Date	Location
13	Aug 31/02	Houston	112	Feb 04/03	W Tahsis
21	Apr 30/01	Gold River	400	Dec 10/02	Zeballos
22	Feb 29/01	Nesook	402	Mar 11/03	Zeballos
23	Apr 30/02	Head Bay	403	Mar 31/03	Zeballos
28	Apr 30/01	Gold River	404	Mar 31/03	Zeballos
30	Aug 31/01	Zeballos	405	Aug 29/03	Zeballos
32	Jan 31/02	Gold River	600	Jan 13/02	GR/Nesook
33	Jul 31/01	Nesook	601	Sep 17/02	GR/Nesook
36	Dec 12/01	Gold River	602	Oct 11/02	GR/Nesook
37	Oct 14/02	Nesook	603	Nov 26/02	GR/Nesook
39	May 12/02	Nesook	604	Nov 13/02	GR/Nes/HB
40	Mar 31/02	Gold River	605	Mar 27/03	Nes/Zeballos
41	Feb 3/01	Nesook	607	Jun 01/03	GR/HB/WT
43	Sep 22/01	Nesook	608	Jun 28/03	GR/Nes/Jacklah
44	Apr 30/02	Gold River	609	Jun 30/03	Nesook
45	Jul 15/02	Nesook	610	Mar 06/03	GR/Nesook
46	Aug 29/02	Gold River	611	Mar 05/03	Nesook
47	Mar 12/02	Nesook	613	Jun 12/03	GR/Nesook
48	Jan 08/02	Nesook	614	Mar 26/03	Gold River
49	May 20/02	Gold River	615	Mar 28/03	Gold River
53	Sep 05/02	Zeballos	616	May 22/03	Nes/W Tahsis
56	Sep 30/02	Zeballos	617	Aug 12/03	Gold River
57	Nov 30/01	Zeballos	618	Oct 18/03	GR/Nesook
58	Jun 14/02	Zeballos	700	May 26/02	Head Bay
59	Jun 22/02	Zeballos	701	May 11/01	E Tah/Tsowwin
61	Sep 30/02	Head Bay	702	Apr 6/01	Head Bay
62	Jun 26/01	Jacklah	703	Apr 22/02	Silverado
65	Oct 31/01	McCurdy	704	Oct 13/02	Houston
67	May 22/02	Head Bay	705	Nov 23/02	Hous/Silverado
68	Aug 20/02	HB/W Tahsis	706	Jan 19/02	West Tahsis
70	Jul 27/02	HB/Houston	709	Jun 22/01	McCurdy
71	Sept 2/02	Head Bay	711	Apr 6/02	Silverado
79	Jan 08/01	Jacklah	713	Aug 11/02	McCurdy
80	Jan 31/02	Nesook	714	Mar 4/02	Nesook
81	Dec 6/02	GR/Nesook	716	Apr 13/02	HB/Houston
82	Jan 21/01	Nesook	717	Jan 13/03	Silv/Jacklah
83	Aug 18/02	GR/Nesook	718	Dec 12/01	Port Eliza
84	Feb 16/02	Nesook	719	July 05/03	Head Bay
85	May 20/02	GR/ Nesook	720	Oct 12/02	Silv/Jacklah
86	Jul 6/02	Gold River	721	Nov 26/02	Jacklah
87	Aug 2/01	Gold River	722	Sep 27/02	Jacklah
88	Sep 16/02	Nesook	724	Jan 22/03	Houston River
89	Dec 12/02	GR/Nes/HB/WT	725	Mar 08/03	HR/Jacklah
91	Apr 16/02	Nesook	726	Jun 25/03	Houston River
92	Feb 16/01	Nesook	728	April 30/02	Jacklah
93	Feb 21/02	Gold River	729	April 30/03	Jacklah/WTahsis

CP	Expiry Date	Location	CP	Expiry Date	Location
94	Sep 18/02	Gold River	730	May 24/03	Silverado
95	Mar 05/02	Gold River	731	Jun 25/03	Houston
96	May 07/02	GR/Nes/HB	732	July 31/03	Silverado
97	Sep 26/02	Nes/ZB/HB/WT	733	July 23/03	Jacklah/Wtahsis
98	Jun 11/02	Gold River	734	Aug 13/03	Silverado
99A	Jun 10/03	Sal/GR/NS/ZB	735	Aug 28/03	HB/Jacklah
99B	Jun 11/03	Sal/GR/NS/ZB	736	Aug 08/03	West Tahsis
111	Mar 31/03	W Tahsis	739	Sep 12/03	West Tahsis
406	Aug 29/03	Zeballos	741	Aug 30/03	HB/West Tahsis
407	Aug 30/03	Nes/Zeb	742	Oct 21/02	West Tahsis

2.2.6 Road Permits

The Company maintained 10 Road Permits in 2001, as listed in Table 9, throughout TFL 19 Operations.

Table 9 - Road Permits by Operation

Road Permit	Operation	Road Permit	Operation
RO6780	Gold River	RO6866	Tahsis
RO6863	Nesook	RO7430	Jacklah
RO6860	Houston	RO8905	Silverado
RO6861	McCurdy	RO6868	Zeballos
RO6864	Head Bay		
RO6865	Tsowwin		

2.2.7 Pest Management Plan

The Pest Management Plan for the Nootka Region approved on October 18th, 2000 is valid from March 2001 to March 2006.

A panoramic view of Nesook Bay from Block J94 shows little snow in the spring of 2001 which permitted many silviculture programs to continue through the winter and spring.

3.0 SUSTAINABLE FOREST MANAGEMENT ACHIEVEMENTS

3.1 Economically Viable Forest Management

3.1.1 Timber Supply

3.1.1.1 Harvest Levels

Scaled timber production with TFL 19 was 1,045,767 m^3. Volumes by timber mark and operation are detailed in Appendix I. The estimated value of this timber is $101,439,000 upon delivery to the mills.

The total volume charged to the AAC (Allowable Annual Cut) was 1,086,372 m^3 (Appendix II) and includes residue volumes billed in the calendar year. Of the AAC available to the licencee in 2001, 118.6 per cent was harvested. In the current cut control period, the chargeable cut totals 4,006,581 m^3 (Appendix III). This represents 86.3 per cent of the total cut for the cut control period 1997 to 2001. Since the inception of the Tree Farm Licence, the total chargeable cut totals 33,887,485 m^3, which is 95.6 per cent of the cut available to the Licensee (Appendix IV).

3.1.1.2 Prevention of Timber Losses

Western Forest Products maintains a timber loss ledger to track volumes of timber lost to biotic and abiotic agents. Since 1993, the total non-recoverable volume recorded for TFL 19 is 11,050 m^3 (Appendix V). In 2001, a total of 2,800 m^3 were reported as non-recoverable volumes.

In Block Q73 in the Gold River Forest Operation pruning of old growth trees is undertaken with helicopter pruning equipment. Pruning to reduce the sail effect and potential windthrow risk in riparian areas.

These losses resulted from wind damage and slides. A further 7,000 m^3 was reported as recoverable in 2001. In 2001, 20,400 m^3 of wood reported as recoverable has been salvaged.

In 2001 fifteen blocks were modified to reduce windthrow. Measures to reduce blowdown on areas assessed to be susceptible to blowdown included feathering cutblock edges, changing cutblock design, harvesting to wind-firm buffers, and aerial pruning. Blowdown specialists conduct assessments prior to harvest in areas that may be prone to blowdown.

3.1.1.3 Efficient Utilization

The Company continues to survey and report residue volumes on a calendar year basis for all cutblocks where logging is complete. There were a total of 358 plots established during the 2001 survey year. The total area surveyed in 2001 remained lower than historic levels, reflecting market conditions. For those areas surveyed in 2001, allowable annual cut (AAC) depletion totalled 36,734.7 m^3, of which 14,057.2 m^3 was deemed billable waste (Table 10). The average residue volume was 14.8 m^3/ha. The volume charged to the AAC for 2001 totalled 40,605 m^3 (Appendix II). Variation between the survey volume attributable to the AAC, and the actual charged to the AAC reflects the billing date as opposed to the survey year.

Table 10 - Residue Assessment Survey Summary

LOCATION	SURVEY AREA		AAC DEPLETION		BILLABLE WASTE TOTAL VOLUME		NUMBER OF PLOTS				
	Gross (ha)	Net (ha)	m^3/ha	m^3	m^3/ha	m^3	Slash	Road Side	Pile	Other	Total
Gold River	504.1	494.2	31.9	15779.3	14.5	7171.8	62	28	18	15	123
Houston	135.0	131.4	54.5	7155.7	15.8	2070.9	22	12	26	10	70
Head Bay	56.7	55.2	30.4	1679.3	18.4	1015.7	13	16	11	2	42
Tahsis	66.1	64.5	60.2	3883.2	17.7	1144.3	11	16	2	0	29
Jacklah	134.1	129.1	43.1	5567.1	13.0	1673.1	27	19	12	0	58
Zeballos	76.4	72.8	36.7	2670.1	13.5	981.4	18	8	8	2	36
TOTAL	972.4	947.2	38.8	36734.7	14.8	14057.2	153	99	77	29	358

Cutting permits outline the required and optional utilization standards. The general guidelines include:

i. Maximum stump height of 30 cm on the side;

ii. All old growth coniferous trees containing X grade logs or better will be utilized to a top diameter of 15 cm inside bark (10 cm for second growth);

iii. All coniferous trees or parts of these trees exceeding 3 m in length which contain X grade logs or better will be removed;

iv. Logs or parts of logs less than 3 m in length and broken at ends are classed as breakage;

v. Logs will not be bucked or trimmed in a manner that reduces grade.

These requirements apply to all living and dead trees that meet these standards. Quality control is maintained by Company personnel, and monitored through felled and bucked inspections and residue surveys.

Approximately 767,000 cubic metres of logs from TFL 19 were processed in Doman Industries' manufacturing facilities. As well, log trades and sales consumed 279,000 cubic metres from the TFL. Three quarters of the log volume produced from TFL 19 in 2001 was used in Doman Industries mills. Due to a small imbalance due to starting and ending inventories all numbers are approximate. The Cowichan, Silvertree, Tahsis, Saltair and Nanaimo mills utilized 477,000 m^3. The Nanaimo Log Merchandizer utilized 49,000 m^3. The Port Alice Pulp Mill utilized 241,000 m^3. The Woodfibre Pulp Mill received 41,000 BDUs of chips from these sawmills and the log merchandizer. The balance of the volume from the tenure was either sold or traded to acquire species and grades of logs suited to Doman mills. The 2001 Log Source/Consumption Summary is provided as Appendix VI.

3.1.1.4 Small Business Forest Enterprise Program

The TFL 19 Small Business Forest Enterprise Program (SBFEP) has been in place since 1988. To date 665,086 m^3 of wood has been allocated to the SBFEP (Appendix VIII). There was no harvesting in the year 2001. Residue and waste surveys were completed in 2001 on previously harvested blocks amounting to 12,818 m^3. To the end of 2001 the scaled volume under the program was 502,943 m^3 and the residue volume totalled 22,358 m^3 for a total of 525,301 m^3.

3.1.2 Harvest Methods

Six logging systems were used in TFL 19 in 2001: grapple, super-snorkel, tower, hoe-forward, cherry-pick and helicopter. The grapple yarding system was the most common in all operations harvesting 44 per cent of the volume.

Table 11 - Logging Volumes by Harvest System and Operation

Operation	Super Snorkel (m^3)	Hoe-Forward (m^3)	Grapple (m^3)	Tower (m^3)	Aerial (m^3)	Cherry Pick (m^3)
Gold River	71 814	64 131	80 211	17 352	15 580	
NCA	36 339	62 168	196 534	23 991	42 350	
Zeballos	6 361	530	17 855		30 974	3 180
TOTAL	114 514	126 829	294 600	41 343	88 904	3 180

3.1.3 Contractor Commitment

Harvesting and forest management activities on TFL 19 during the year employed contractors and Company personnel. The volume harvested by full and phase contractors totalled 509,932 m^3. The Contractor Clause Performance for harvesting was 102.5 per cent (Appendix IX). Appendix X lists the phase and full-harvesting contractors. Appendix XI lists all contractors employed in harvesting, silviculture, and resources management on the TFL.

3.1.4 Profitability

The Doman group of companies produces and markets upper grades and commodity grades of lumber and various grades of NBSK and dissolving and paper grade sulphite pulp which are sold in approximately 30 countries world wide.

The lumber produced by the Tahsis and Nanaimo sawmills is targeted primarily for the Japanese market. The Company's focus in Europe is kiln dried, high-grade specialty products used predominantly in Germany, Italy and the United Kingdom. The group also sells its commodity grade lumber products into the Hong Kong market which are primarily purchased by customers based in mainland China.

The group's NBSK pulp is a commodity product and is sold primarily to paper producers and tissue manufacturers. Sales of dissolving sulphite pulp are generally made directly to end users.

World markets were depressed for all products in 2001 resulting in significant sawmill and pulp mill shutdowns. General markets problems in 2001 were affected by two additional events. On March 31, 2001 the Softwood Lumber Agreement between Canada and the U.S. expired with no replacement agreement in place causing North American market uncertainty. The September 11th terrorist attack on various continental U.S. targets caused additional worldwide market uncertainty.

The following table shows 2001 performance from all tenures.

Table 12 - Performance

Category/Product	Lumber	Logs	Chips	Pulp
2001 Sales Volume	674 million bdft	1.1 million m^3	271 thousand BDU	301 ADMT
2001 Sales Value	$ 355 million	$ 156 million	$ 21 million	$ 238 million
Canada	10%	100%	100%	1%
United States	61%	0%	0%	5%
Asia	25%	0%	0%	57%
Europe	4%	0%	0%	32%
Other	0%	0%	0%	6%

The Doman group had sales totalling $770 million in 2001. A one time $292 million write down of assets and interest expense of $173 million contributed to a net loss of $413 million. This equates to a loss of

$9.82 per Equity Share. Complete details can be found in the Doman Industries Limited Annual Statutory Report for 2001.

3.1.5 Non-Timber Forest Products

Approximately 1400 kg of Chanterelle mushrooms and 900 kg of Pine mushrooms were harvested in the Gold River Operation for an estimated market value of $60,000. Salal pickers harvested over 1,900 kg for an estimated market value of $5,000. Approximately 60 litres of honey was produced in the Gold River Operation for personal use only.

3.1.6 Special Forest Products

Cedar shake and shingle, Yellow cedar cant and cedar log salvage timber volumes were harvested from TFL 19. Salvage timber materials totalled 854.7 m^3 shake and shingle wood from all three Operations, 30.1 m^3 cypress cants and 15.0 cedar log salvage from Zeballos Forest Operation (Appendix XII). The estimated market value of all Special Forest Products was $309,256. The administration cost incurred was $6,150.

3.1.7 Access Management

A transportation system has been developed throughout the TFL to allow transport of logs to log dumps, sorts, and on to processing facilities. Some 607.1 km of road is currently maintained within the TFL. These roads are generally open for public use.

Since 1995, all road construction, modification, maintenance, and deactivation conforms to the requirements of the Forest Practices Code and the Forest Road Regulation. Maps showing the current and planned status of forest roads are available for comment with Forest Development Plans.

3.1.8 Recreation

3.1.8.1 Public Recreation Sites

Western Forest Products maintained recreation sites co-operatively with the Ministry of Forests throughout TFL 19. Overnight facilities were maintained at Muchalat Lake, Cougar Creek, and Leiner River. The Company has also enhanced many day-use areas including fresh and salt-water fishing, caving, forest education walks, hiking, hunting, and landscape viewpoints.

A specific improvement implemented by the Company in cooperation with the Village of Zeballos was the lengthening of the Zeballos Nature Trail. The trail was lengthened by 625 m which more than doubled the length of the existing trail.

The total costs were $28,782. Reimbursements amounted to $15,534.

3.1.8.2 Recreation Use

Approximately 5,000 Visitor Guides for the Nootka Region were distributed to the public. The Company continued to promote the resources of TFL 19 for recreation use through signage, advertisements, and visitor maps. Estimates of annual use are presented Table 13. These estimates are based on site monitoring, reports from site maintenance workers, and information from the tourism industry.

Table 13 - Recreation Activities and Use Estimates

ACTIVITY	USER DAYS BY OPERATION			
	Gold River	Nootka Contract	Zeballos	Total
Beach Use	200	198	60	458
WFP Sites and Trails	24 000	5 331	400	29 731
Hunting	2 800	2 104	250	5 154
Fishing (Freshwater)	2 000	99	200	2 299
Fishing (Saltwater)	11 200	11 544	2 500	25 244
Firewood Cutting	1 350	729	150	2 229
Food Gathering	100	48	10	158
Kayaking	500	6 051	300	6 851
Mountain Biking	1 825	0	0	1 825
Whale Watching	50	30	0	80
Auto Touring	2 000	1 260	200	3 460
Hiking and Caving	2 500	2 615	500	5 615
TOTAL	**48 525**	**30 009**	**4 570**	**83 104**

3.1.9 Research and Development

Western Forest Products continues to implement and support research initiatives. Silviculture and stand management research lead by the Company has resulted in the development of new best practices in the areas of forest fertilization applications. This includes time of planting fertilization and broadcast fertilization of juvenile stands.

A new crop of one-year-old Douglas-fir seedlings is hardened off at the Saanich Forestry Centre. In 2001 the Centre produced more than 3,000,000 seedlings for reforestation.

Yellow cypress gene resources management studies initiated by the Company have led to selection of stocks displaying desirable traits for the regeneration program. Support of graduate students at BC's Universities results in development of new techniques, such as improved stratification techniques for Yellow cypress seed, and also results in the development of trained researchers. Costs for Research totaled $68,409 *(*includes prorated shares of HO and SFC grants to GREAT, NSERC, etc) and reimbursements through WFP's FRBC Multi-Year Agreement were $43,875.

No previously established projects were due for measurement in 2001. All permanent plots and trials currently active in TFL 19 are included in Appendix XIII.

3.1.10 Contribution to Provincial Revenues

In 2001 Stumpage and Royalties paid to the provincial government amounted to $19,875,027.99, with an additional $382,055.40 being paid for the Annual Allowable Cut Rent.

3.2 Environmentally Appropriate Forest Management

3.2.1 Conservation of Biological Diversity

Western Forest Products protected and conserved resource values throughout its area of operation during the year. Table 14 describes measures taken for the 53 areas harvested in 2001. Blocks for which amendments were submitted and blocks in which harvesting was not completed are not included. The Company reviews every cut block to ensure that legal and forest stewardship commitments are recognized in harvest planning.

In Block E73 in the Ucona drainage a small patch clearcut harvest system was used. The area along the creek to the left of the block and the area between the blocks are wildlife tree patch reserves. A total of 3.9 ha were reserved and 16.4 ha harvested.

Table 14 - Protection and Conservation Measures

Operation	Blocks Harvesting Completed	Number of Blocks Requiring Special Consideration									
		Visual Quality	Biological Diversity	Soil Stability	Water Quality	Recreation Resources	Cultural Heritage	Riparian Management	Wildlife Habitat	Cave/Karst Features	Other
Gold River	29	5	1	27		1	6	29	3		3
NCA	20	12		17		3	7	5	3	4	
Zeballos	4	2		4		4					
TOTAL	**53**	**19**	**1**	**48**	**0**	**8**	**13**	**34**	**6**	**4**	**3**

3.2.1.1 Ecological Diversity

WFP is developing a process for reporting on the ecological diversity for areas covered under a Sustainable Forest Management Plan. This process is currently being tested and refined in TFL 6 – North Vancouver Island and is to be implemented in TFL 19 once a standard methodology is in place. Indicators to be reported include current and projected seral stage analysis, patch size distribution analysis and ecosystem representation analysis.

In the Gold River Forest Operation in Block E520 full-suspension logging was undertaken through a Riparian Reserve Zone during the permitted fisheries window using a yarding corridor and full stream protection .

3.2.1.2 Species Diversity

Table 15 summarizes the amount of stand level and landscape level reserves within TFL 19.

Appendix XXVII contains a list of vulnerable, threatened and endangered species and measures to conserve.

Table 15 - Stand Level and Landscape Level Reserves

Reserve Type	Area (ha)
Wildlife Tree Patches*	205.7
Stand-Level Reserves (i.e. Riparian)**	606.3
Ungulate Winter Ranges	6580.0
Protected Areas (Weymer Creek, Gold Muchalaht Park)	958.0
Old Growth Management Areas	0.0
WHA	27.7

*Tracking of WTP reserves began in 1997. Not all stand level reserves have been included in the GIS.

**Tracking began in 1994. Not all reserves are accounted for.

Reforestation

A diverse species of trees were planted in 2001 as noted in section 3.2.2.2 and Appendix XVI.

Salmonid Enhancement Program

Western Forest Products Limited continues to support Salmonid Enhancement projects in its TFLs. Local volunteers, many of whom are Company personnel, volunteer their labour and skills to these projects. In 2001, more than 89,000 fry were released from a Company-supported hatchery project at Zeballos into TFL watersheds.

In the Gold River Forest Operation in Block E520 logs are temporarily placed over the stream to protect it from yarding debris.

3.2.1.3 Genetic Diversity

The regulations governing deployment of improved and natural seed in British Columbia maintain high standards for genetic diversity. All seedlots used in TFL 19, including seed harvested in orchards and seed harvested from natural stands, met these standards. Where improved seed is available, it is regulated to be used before natural stand seed collections. Many coastal gene resource management programs have identified desirable stock for improved seed production. Thus significant portions of the Western redcedar, Western hemlock, Douglas-fir, Sitka spruce, and Yellow cypress stock used are grown from orchard seed (Table 16). No improved seed is available for Amabilis fir and Lodgepole pine. The Sitka spruce and Yellow cypress gene resource management programs are developing rapidly and will soon deliver greater amounts of choice material for regeneration.

Table 16 - Seed Source Summary

SPECIES	SEED ORCHARD (%)	NATURAL STAND (%)
Western redcedar	87	13
Western hemlock	100	-
Coastal Douglas-fir	100	-
Amabilis fir	-	100
Yellow cypress	32	68
Sitka spruce	-	100
White pine	100	-
Miscellaneous	-	100
Weighted Mean	**73**	**27**

Contractor Don Piggot and Resident Forester Nels Nielsen check bagged balsam cones in late September in Gold River. Cone sacks are turned every 4 or 5 days to ensure even drying before they are sent for seed extraction at the Surrey Seed Centre.

A large collection of Abies amabilis cones was completed in September in an old growth stand using a helicopter cone rake. The cone rake collects branches and cones from trees and these are flown to landings for picking and bagging.

3.2.2 Maintenance of Ecosystem Condition and Productivity

3.2.2.1 Forest Health

Insects and Diseases

Some ambrosia beetle damage was noted on roadside felled and bucked in numerous blocks. Damage was attributed to the length of time the wood was on the ground due to shutdowns.

Sitka Spruce Regeneration

A total of 16,030 weevil resistant Sitka spruce were planted. Of this 14,070 were planted in Gold River Operation, 1,100 in Nootka Contract Operation and 860 in Zeballos Operation.

Elk and deer browsing are a serious problem for reforestation in TFL 19. Three-foot tall plastic tree cones with wooden stakes were established in a heavy browse area in Block K502. Elk herds move into these recently logged blocks and stay year round to take advantage of fresh vegetation. Contractors Jim Fiddick and Nick Wagstaff install the stakes.

Ungulate Damage Management

In areas with high Roosevelt Elk and black-tailed deer populations, seedlings were protected from browse and trampling with tree cone seedling protectors. The seedling protectors are removed approximately four years following establishment, when the seedlings are large enough to withstand browsing. Protectors require maintenance every one to two years. Tree cones were established on browse-prone species on 18.1 ha and were maintained on an additional 33.7 ha.

Forest Fire Management and Other Abiotic Factors

Fire Preparedness Plans were updated to fulfill annual obligations. Ground and aerial patrols were undertaken during times of upper moderate, high, and extreme fire-weather hazard ratings. Patrols focused on areas with lightning strikes, active work areas, and recreation sites. Weather stations were monitored during the fire season and throughout the slash pile-burning program in October and November. There was one accidental fire reported in 2001. The fire was quickly contained. There was no damage to timber or other resource values.

Gold River Forest Operation, Zeballos Forest Operation and Nootka Contract Operations were not shut down for fire weather conditions in 2001. Fire Management Costs amounted to $5,322.

Windthrow damage in 2001 amounted to 2,800 m^3 of non-recoverable losses and a further 7,000 m^3 of recoverable windthrow.

3.2.2.2 Forest Ecosystem Resilience

Regeneration

Site preparation was implemented to improve regeneration efforts by increasing the availability and distribution of planting spots. Costs for all site preparation in the TFL was $20,426.

No broadcast burning was undertaken in the TFL in 2001. Slash was piled in areas of heavy slash accumulations, along roadsides. A total of 4.4 ha of piles were burned in the TFL. In Gold River Forest Operation, 3.6 ha of roadside piles were burned in 26 harvest blocks. Nootka Contract Administration burned 0.8 ha in 6 harvest blocks (Appendix XVI). Piling and burning reduced the amount of slash and increased the number of plantable spots for increased regeneration.

Alison Behrner, Operations Forester in the Nootka Contract Operations works with a propane torch on slash pile burning in the Head Bay Operation. Most slash disposal is now done through pile burning rather than broadcast burns.

An additional 17.0 ha of productive forest site was created for conifer regeneration by rehabilitating permanently deactivated spurs in the Gold River Forest Operation (Appendix XXII).

The Saanich Forestry Centre produced 2,795,250 seedlings in 2001 (Appendix XV) which addressed approximately eighty per cent of Western Forest Products needs. A total of six species were produced.

Planters work with large Sitka spruce seedlings in 1 gallon pots on wet, flood prone, elk-browse site in Block M29A at Saunders Creek. This labour intensive effort is expensive but the only way to regenerate these high value sites.

Operations planted 1,248,436 seedlings in TFL 19. Original plantations encompassed 1,180.1 ha (Appendix XVI). As well, 150.0 ha of replant area required additional planting to meet the required stocking standards and 17.4 ha of roadside areas were planted following pile burning and road deactivation. Original and roadside plantings were credited to the Regeneration Balance (Appendix XVII). Approximately 29 million seedlings have been planted in TFL 19 since 1954 (Appendix XX). Fertilization at time of planting improved the competitiveness of conifers in areas of high brush hazard. Gold River Forest Operation fertilized 678,582 seedlings; Nootka Contract Administration fertilized 333,505 seedlings, and Zeballos Forest Operations fertilized 81,349 seedlings at time of planting, for a total of 1,093,436 seedlings fertilized (Appendix XVI).

Western hemlock was planted most commonly in 2001, followed by Western redcedar, Douglas-fir and Amabilis fir. These four species accounted for 90 per cent of the planting program. In addition, Yellow cedar, Sitka spruce, Western white pine, Grand fir, Noble fir and Mountain hemlock were planted, establishing diverse second-growth forests (Appendix XVI).

Costs for the planting program were $1,484,175 including stock purchase, inspection, planting, and program co-ordination. Average costs were $1,101 per ha, or $1.19 per seedling. Costs were comparable to 2000.

Table 17 - Estimated Regeneration Delay

Year	NSR Closing Balance (ha)	Denudations (ha)	Regeneration Delay
2001	1693	1172	1.4
2000	1818	1110	1.6
1999	1525	588	2.6
1998	1188	631	1.9
1997	1951	944	2.1
5 Year Average	8175	4445	1.8

Surveys

Plantation survival assessments are designed to assess survival soon after planting. The first year is the most difficult for the newly planted seedlings and survival surveys provide early indications of potential problems. Gold River Forest Operation conducted survival assessments on 345.2 ha. Average one-year survival was approximately 93 per cent (Appendix XVI). Nootka Contract Administration and Zeballos Forest Operation have a modified program, doing a full-blown stocking survey two years following planting. The results of these assessments are summarized in the following section.

Despite logging and survey crews in the vicinity this black bear seemed content to rest in a large hemlock tree about 20m above ground throughout the day near Block P3 at Gold River.

Costs of planting survival assessments were $12,636.

Stocking surveys of enhanced regeneration took place in all operations (Appendix XVI). Gold River Forest Operation assessed 580.2 ha of which 532.5 ha were satisfactorily regenerated. Nootka Contract Administration assessed 377.8 ha of which 374.2 ha met stocking standards. Zeballos Forest Operation assessed 49.1 ha which was all satisfactorily restocked. Areas that did not meet the stocking standard were debited to the Regeneration Balance (Appendix XVII). Areas not satisfactorily restocked were slated for replant unless natural regeneration was appearing in sufficient numbers, spaced adequately and of the appropriate species to ensure that silviculture prescription requirements would be met within one or two years.

Costs for stocking surveys totalled $52,844, an average of $52 per ha.

Gold River Forest Operation conducted free growing surveys on 550.4 ha in 2001. Of this area 354.4 ha met free growing standards (Appendix XVI). Nootka Contract Administration assessed 608.9 ha, of which 365.3 met free growing standards, and Zeballos Forest Operation completed 270.6 ha, of which 244.6 ha met free growing standards. Costs for free growing surveys were $47,782 or $33.42 per ha. Forest Renewal BC reimbursed the Company for surveys of backlog areas.

Brush problems present interesting challenges for foresters and planted trees. Bracken is removed, with a golf club, from a 1 metre radius around seedlings. Preston Maquinna is working in Block K57 in the Gold River drainage using a pitching wedge.

Green-up surveys were carried out to ensure that adjacency requirements in the Forest Practices Code are met for blocks slated for harvest on the Forest Development Plans in all Operations. Green-up surveys were conducted on a total of 903.6 ha in TFL 19. Gold River Forest Operation surveyed 600.6 ha, of which 237.3 ha met green up. Nootka Contract Administration surveyed 180.2 ha, of which 128.5 ha met green up, and Zeballos Forest Operation surveyed 122.8 ha, of which 78.9 ha met green up. Costs for green-up surveys were $12,046.

Competition Control

Gold River Forest Operation manually treated 28.3 ha and chemically treated 2.5 ha to reduce competition to seedlings by brush species. Nootka Contract Administration manually treated 41.6 ha. and mechanically treated 0.8 ha. The Zeballos Forest Operation manually treated 17.7 ha. Manual brushing, being more labour intensive than chemical brushing increased employment although costs/ha were significantly higher.

Costs for brushing and weeding were $113,589 or $1,250 per ha. There was no cost recovering as all treatments were carried out on appraisal blocks.

3.2.2.3 Forest Ecosystem Productivity

Mt. Leighton, a First Nations' contractor, spaced 74.1 ha and pruned 66.3 hectares at Gold River. The Zeballos Forest Operation juvenile spaced 42.2 hectares (Appendices XIX and XX).

Funding for juvenile spacing and pruning was provided by Forest Renewal BC. Costs for spacing were $230,604 or $1,983 per ha. Costs for pruning were $140,524 or $2,120 per ha.

A large 1363.4 ha aerial broadcast fertilization program was completed in Gold River Forest Operation using West Coast Helicopters (Appendices XIX and XX). Costs for the program were $424,026 or $311 per ha. Forest Renewal BC reimbursed costs for the aerial fertilization.

To quantify forest ecosystem productivity, permanent Growth and Yield sample plots were re-measured. This data will be used to calibrate volume prediction models for determining allowable annual cuts. Permanent sample plots established in 1957, 1963, 1968, and 1978 were re-measured (Appendix XIII). All permanent sample plots located on land managed by Western Forest Products continue to be protected as required. Costs for the Growth and Yield program in TFL 19 were $26,108, and reimbursements from FRBC were $22,548.

Quantifying the response of stands to fertilizer applications is an identified knowledge gap. A new fertilization volume trial was established early in the year before the growing season. Three Amabilis fir stands and three Western redcedar stands were selected to examine the effect of fertilizer treatments. Plots were established to meet the Permanent Sample Plot requirements as set out by the Forest Productivity Council of British Columbia. Three treatments were tested: nitrogen only, blended fertilizer,

and control. After two growing seasons the post treatment growth will be measured and analysed to determine if fertilization has had an effect, and if so, to quantify the effect.

An operational fertilization monitoring survey was established in 2001. It consists of paired comparisons of five control plots and five fertilized plots in salal-dominated ecosystems. These will be monitored after two growing seasons for post-fertilization analysis. Costs for the fertilization research and monitoring program in TFL 19 were $9,346, and were fully funded by FRBC.

Habitat Enhancement and Riparian Restoration

The Watershed Restoration Program development of side channel habitat and in stream habitat structures for the Oktwanch and Zeballos rivers was completed in 2001. Monitoring of both projects by the Department of Fisheries and Oceans confirmed that this new habitat had a 92% average egg-to-alevin survival; an exceptional result for coho and chum spawning. See (Table 18) for 2001 accomplishments and Appendix XXI for historical summary of watershed restoration accomplishments.

Table 18 - Habitat Enhancement and Restoration Summary

Watershed	Assessments (ha)	Fish Habitat Restoration (km)	Riparian Rehabilitation (ha)	Monitoring
Zeballos		Enhanced Existing	-	Instream
Conuma		-	-	
Ucona		-	-	
Upana		-	-	
Muchlalat Lake	3800	4.86	-	Instream
Tsowwin		-	-	
TOTAL	**3800**	**4.86**	**0**	

3.2.3 Conservation of Soil and Water Resources

3.2.3.1 Productive Area

The following table compares prescribed versus actual harvest area occupied by permanent roads and landings. Actual area occupied is significantly lower than planned.

Table 19 - Permanent Access Structures

Operation	Cut Blocks	Gross Area Average (ha)	Silviculture Prescription Average (ha)	Silviculture Prescription Average (%)	Measured Average (ha)	Measured Average (%)
TFL 19	34	26.7	1.5	5.6	0.9	3.4
TOTAL	**34**	**26.7**	**1.5**	**5.6**	**0.9**	**3.4**

3.2.3.2 Water Quality

Road maintenance and road deactivation is a key activity in the maintenance of water quality. Activities in 2001 included 138.8 km of road deactivation and 607.1 km of roads maintained (See Appendix XXII). An additional 31.2 km of road was deactivated under the Watershed Restoration Program (Table 20). There were no reportable petroleum spills. CWAPs were completed on 13 watersheds in 2001. The amount of brush area treated with herbicide was 2.5 ha compared with 88.4 ha treated mechanically.

Riparian Management Areas (RMA) are identified during cutblock layout. Prescriptions that address water quality concerns are incorporated in harvesting plans. Based on 31 cutblocks sampled, RMAs amounted to 30.3% of the total area under prescription.

Table 20 - Watershed Restoration Program and Road Deactivation

Watershed	Assessments (km)	Road Deactivation (km)
Zeballos		
Conuma	2.3	2.3
Ucona	5.5	5.5
Upana	9.7	8.5
Muchalat Lake		12.8
Tsowwin		2.1
TOTAL	**17.5**	**31.2**

3.2.4 Global Ecological Cycles

Global carbon cycles are not fully understood. However, it is believed that the global carbon cycle is out of balance. Harvesting is followed by prompt reforestation and follow up silviculture treatments to ensure second growth forest optimally absorbs CO_2. The NSR closing balance at the end of 2001 was 1,693 ha which represents 1.4 year regeneration delay. Fertilization to enhance growth amounted to 1,363 hectares.

Over 800 ha of second growth were fertilized with urea nitrogen in the Gold, Oktwanch, Muchalat and Galiano drainages in November and December. Heavy rain, snow, wind and fog slowed the project.

3.3 Socially Beneficial Forest Management

3.3.1 First Nations

The Company has a long history of First Nations involvement in Tree Farm Licence 19 activities. Spacing and pruning contracts in the Gold River Forest Operation and spacing, brushing and weeding, and planting contracts in the Zeballos Forest Operation were directly awarded to local First Nations' silviculture crews.

WFP has an annual goal of achieving a minimum of 20 per cent First Nations employment in silvicultural contracting. In TFL 19 in 2001, the goal was exceeded. A total of 30 per cent of the silvicultural contracting was completed by First Nations' groups. Company-wide, the rate of First Nations employment met our goal of 20 per cent (Appendix XXV).

The Company is presently sponsoring Larry Snook, a member of the Mowachaht/Muchalaht First Nations in the Forestry program at the Nicola Valley Institute of Technology in Merritt, B.C.

An estimated ten of the Company's local logging employees are First Nations.

3.3.2 Communities

3.3.2.1 Public Projects

Western Forest Products continues to be heavily involved in local communities. The Gold River Forest Operation celebrated Occupational Health & Safety Week by hosting 150 employees at a breakfast and a barbeque lunch. Gold River Forest Operation staff, summer students and employees' children entered a float into the Gold River Logger Sport's Days parade. A community Christmas party was held at the Gold River community centre. Approximately 80 children and 40 adults enjoyed Santa Claus, carols and making Christmas crafts.

Costs for the public projects in 2001 were $40,796.

Western Forest Products float at the Logger Sport's Day in June at Gold River. WFP Engineer Jennifer Bendickson and Assistant Forester Lelaynia Hryhorka participating with local children on the Company's parade float.

3.3.2.2 Forest Education

The in-school forestry education program continued in the Ray Watkins Elementary School (Gold River), Captain Meares School (Tahsis) and the Zeballos Elementary Secondary School. The Gold River Operation was represented at a career day at the Gold River Secondary School with 35 students from grades ten to twelve participating.

Western Forest Products Limited continued to raise the profile of forest stewardship in Coastal British Columbia with school and public tours throughout the year. Members of the public showed great interest in seeing forest operations and silviculture operations up close.

Gold River Forest Operation hosted eighteen tours for the general public and two tours for school groups during the year with a total of 111 participants. The Zeballos Forest Operation hosted two North Island Discovery Centre Tours with a total of 23 participants, and one tour for the general public with 10 participants.

Twenty-five children and adults from the 1st Gold River Scouting Group participated in Trees for Canada celebrations with the planting of 500 seedlings.

National Forests Week was recognized with the Gold River Forest Operation holding an essay/poster contest with 200 children participating. In each category first and second prize winners were rewarded with helicopter rides, and the third prize winners received tee shirts.

Forest education costs totalled $12,496.

Budding foresters Julianna Nielsen and Nona Robertson are getting ready for tree planting as part of the Scouts Trees for Canada Project at Gold River in spring 2001.

Each year local Scouts and WFP foresters join forces to plant 500 trees, learn about forestry and enjoy a picnic in the field. The 1st Gold River troop planted trees in Block K514 just outside the Gold River townsite as part of a Tree's Canada Project.

3.3.3 Employment

3.3.3.1 Direct Employment

TFL 19 generated full or part-time employment for 2,799 individuals in 2001. Operations produced 164,193 person-days of direct employment equivalent to 912 full-time positions (Appendix XXIII). This equates to one full-time position of employment for every 1,146 m^3 of scaled log production. Company-wide, 642,422 person-days (Appendix XXIV) were worked equivalent to over 3,500 full-time positions based on 180 days per full-time equivalent.

Planning, Engineering, and Road Development

Planning and development relating to TFL 19 occurred at each of the Operations and at the Company's corporate office in Vancouver. Engineering and road construction employed 178 people for an estimated 16,323 person-days. Contractors were responsible for just over fifty per cent of the operational person-days in planning and road construction (Appendix XXIII).

The mapping department in Vancouver provided planning and development support at the Operations. The Company moved towards independent internal mapping with the operations changing to the new corporate design specs for Forest Development Plans and operational mapping.

Harvesting

Nearly all direct harvesting employees, both contract and Company, resided on Vancouver Island, and the majority resided in the vicinity of the TFL. Work completed by contract employees comprised 40 per cent of the harvesting person-days. Harvesting person-days totalled 47,396 (Appendix XXIII).

Transportation

Transportation of logs from the log dump sites to processing facilities and log trade markets occurred by barge and boom. Log transportation generated roughly 8,095 person-days of employment.

Processing

Nine processing facilities owned by Doman Industries received logs form TFL 19, and surplus logs were traded and sold. For purposes of analysis, it was assumed that employment was generated within the vicinity of the processing facility. Facilities included the Cowichan Bay, Silvertree, Saltair, Vancouver and Nanaimo Sawmills, the Port Alice and Squamish Pulp Mills, Nanaimo Log Merchandising and Log Trading and Sales.

Prorated direct employment based on wood flow and consumption estimates totalled 1,558 people employed for 77,898 person-days (Appendix XXIII).

Silviculture and Integrated Research Management

Basic and enhanced silviculture and integrated resource management projects employed 279 people throughout TFL 19. Of these, over 56 per cent were contract employees. A total of 8,381 person-days of employment were generated in Silviculture and Integrated Resource Management (Appendix XXIII).

A prorated share of employment at the Saanich Forestry Centre was included for TFL 19. Fifty-seven Company employees amassed 1,456 person-days of employment. The corporate office in Vancouver contributed 51 people for 748 person-days attributable to TFL 19.

Administration

Administrative employment occurred locally with the Regional staff, and in Vancouver, at the Company's corporate office. The prorated share of administrative employment included 86 Company personnel working 5,645 person-days in the year and four contract employees working 454 person-days.

3.3.3.2 Indirect Employment

Tree Farm Licence No. 19 supported indirect employment in the local communities of Gold River, Zeballos, and Tahsis, as well as in Campbell River and the Comox Valley. In the vicinity of the processing facilities supplied by TFL 19, significant amounts of indirect employment were likewise generated. Additional indirect and induced employment were supported province-wide through purchase of services and supplies.

The ratio of direct employment to indirect and induced employment used in this analysis is 1:2 (based on the conservative Pricewaterhouse model). For every employee directly employed by TFL 19 activities, two additional people are indirectly employed through private and public sector agencies. The estimated indirect employment generated by TFL 19 in 2001 was 328,386 person-days. Based on an average of 180 days per full-time equivalent position, over 1,800 full-time positions were indirectly generated as a result of TFL activities.

3.3.4 Compliance with *R*egulations and Legislation

The Ministry of Forests conducted 203 inspections in 2001. The tenure had a 99% compliance record with 4 minor contraventions and 1 warning ticket. No financial penalties were applied.

3.3.5 Employee Relations

Western Forest Products' employees, contractors and their employees are trained in sustainable forestry practices. Existing practices are reviewed and updated when required. Western Matters, a WFP produced newsletter is published Spring and Fall and circulated to all employees and contractors.

The following table summarizes 2001 training:

Table 21 - Training Summary

Operation		Environmental Management System	Standard Operating Procedures	Safety Certification
Gold River	People	300	335	344
	Hours	300.4	335.2	2581.3
Nootka Contract	People	76	84	90
	Hours	102.3	114.4	867.5
Zeballos	People	109	121	130
	Hours	109.3	121.4	971.2
TOTAL	**People**	**485**	**540**	564
	Hours	**512**	**571**	4420

3.3.6 Safety

The Gold River Forest Operation reported seven lost-time accidents ranging from wrist, leg, back and eye injuries. The Nootka Contract Operation reported only one eye injury resulting in lost time and the Zeballos Forest Operation reported two lost time accidents.

A carved totem looking south in Nootka Sound reflects the distinctive woven cedar hats of the Muchalaht/Mowachaht people.

4.0 CONSULTATION

4.1 Stakeholders

All three operations hosted public reviews of Forest Development Plans (2001-2005) during the year. A total of seven information and review sessions were hosted for these Plans (Table 22). Concerns raised by participants and correspondents were addressed. Presentations were given to stakeholders, government organizations and, on request, to members of the general public.

Table 22 - Public Participation

Operation	Plan	Community	Participants (#)	Responses (#)
Gold River	Forest Development Plan (2001-2005)	Gold River	7	6
NCA	Forest Development Plan (2001-2005)	Gold River	5	0
		Tahsis	12	0
Zeballos	Forest Development Plan (2001-2005)	Campbell River	0	0
		Zeballos	2	1
		Kyuquot	7	0
		Oclugje	3	0

4.2 First Nations

All three operations met for reviews and discussions of the Forest Development Plans (2001-2005) with the First Nations mentioned in the following Table 23.

Table 23 - First Nations' Participation

Operation	Plan	First Nation	Participants
Gold River	Forest Development Plan (2001-2005)	Mowachaht/Muchalaht	2
Nootka Contract	Forest Development Plan (2001-2005)	Mowachaht/Muchalaht	4
Zeballos	Forest Development Plan (2001-2005)	Ehattesaht	4
		Nuchatlaht	5
		Ka:'yu:'k't'h/Che:k:tles7 et'h'	7

5.0 ADMINISTRATION

5.1 Management and Support

The costs of supervision and overhead relating to specific operational projects are included in the reported project costs. However, many administrative costs are broadly defined as general management and overhead. These include Company prorated charges to the Forestry Department for rentals, services, salaries and expenses to perform administrative functions. Total costs for administration were $512,871.

5.2 Goals and Objectives – 2002

The Licensee manages TFL 19 consistent with the objectives in Management Plan 9 and applicable higher plans. Appendix XXVI outlines progress made in addressing the commitments and outstanding issues with regards to the Management Plan.

The major goals for TFL 19 identified for 2002 are as follows:

- Complete the development of a map based wildlife management strategy for TFL 19.
- Work with Government Agencies to complete Landscape Unit Planning for all landscape units within TFL 19.
- Continue capacity building with First Nations.
- Complete the Vegetative Resource Inventory for TFL 19 that was started in 2001.
- Maintain internal audits and third party review for ISO 14001 registration.
- Continue with current research projects related to fertilization of Hw and Cw growing on salal, deer fern sites.
- Remeasure permanent sample plots, growth and yield, located within TFL 19.
- Develop a silviculture strategy to increase the quantity of future timber supply.
- Review and update criteria and indicator measures of sustainability for the TFL 19 Sustainable Resource Management Plan.

6.0 FINANCIAL STATEMENTS

6.1 Forest Management Costs

The following summary presents all TFL 19 forest management costs incurred or expended by Western Forest Products and other agencies at the field level. Planning, supervision, and overhead costs directly related to programs as well as program application costs are included before credits or reimbursements. A prorated share of head office forestry department and Sannich Forestry Centre costs are included as well.

Table 24 - Forest Management Costs

Program	Section	Section Costs ($)	Total ($)
Forest Management Inventory and Planning			**$942,824**
Resource Inventories		**443,801**	
Geographic Information Systems		72,146	
Forest Inventory		104,635	
Ecosystems		0	
Terrain Stability		0	
Integrated Resource Management		267,020	
Strategic and Operational Planning		**499,023**	
Higher Level Planning		153,195	
Forest Development Planning		27,219	
Silviculture Prescriptions, Planning, and Record Keeping		131,119	
Cutting Permits and CP Cruising		187,490	
Sustainable Forest Management Achievements			**$4,278,431**
Economically Viable Forest Management		**163,606**	
Residue Assessments		60,265	
Minor Products		6,150	
Recreation Resources		28,782	
Research		68,409	
Environmentally Appropriate Forest Management		**3,962,220**	
Salmon Enhancement Program		13,761	
Tree Improvement and Orchard Consolidation		184,104	
Forest Health		28,589	
Fire Management		5,322	
Site Preparation		20,426	
Planting		1,484,175	
Stocking Surveys		52,844	
Survival Assessments		12,636	
Free Growing Surveys		47,782	
Green-up Surveys		12,046	
Brushing and Weeding		113,589	
Juvenile Spacing		230,604	
Pruning		140,524	
Fertilization		424,026	
Fertilization Research and Monitoring		9,346	
Growth & Yield		26,108	
Habitat Enhancement and Riparian Restoration[1]		633,438	
Road Deactivation and Terrestrial Restoration[2]		522,900	
Socially Beneficial Forest Management		**152,605**	
Public Projects[3]		40,796	
Forest Education		12,496	
Community Support		97,077	
Audits		2,236	
Administration			**$512,871**
TOTAL			**$5,734,126**

[1] Includes WRP
[2] Includes WRP
[3] Salmon Enhancement or Recreation Resources investments are line items above, not included in Public Projects total.

6.2 Forest Management Reimbursements

The Company received funding from government agencies for silvicultural enhancement, integrated resource management, research and tree improvement, and salmonid enhancement projects. A summary of the reimbursements received is presented in the following table.

Table 25 - Reimbursement Summary

Program			TFL 6	TFL 19	TFL 25
Forest Renewal BC	MYA Backlog				
		Stocking Surveys	1,110		
		Planting	5,014		
		Brushing	262,415	11,687	136,878
		Free Growing Surveys	6,684	897	3,253
	MYA Enhanced Forestry	Juvenile Spacing	306,883	229,862	357,609
		Pruning	376,048	140,222	369,488
		Fertilization	314,325	414,832	142,560
		Growth and Yield		22,548	41,875
		Fertilization Monitoring	1,468	9,341	197,346
		Silvicultural Research		43,875	56,276
	MYA Operational Inventory				
		Forest Inventory	348,668	89,447	18,080
		Ecosystems			53,926
		Stream Inventory	46,892	83,499	43,216
		Raptor Inventory	43,475		
		Wildlife Inventory		86,353	
		Marbled Murrelet Inventory		41,315	23,953
		Bear Inventory			60,879
		Archeological Inventory			28,293
		Cave and Karst Inventory		11,290	
	MYA Enhancing Environmental Values[4]				
		Riparian Restoration	227,387		
		Watershed Assessment	12,727	36,500	
		Watershed Restoration	1,280,076	1,006,536	213,411
		Wildlife Habitat	4,848		
	MYA Public Relations				
		Recreation	6,396		24,041
		Public Relations	6,077	5,069	1,872
	MYA Administration				
		Planning	23,943	19,571	6,179
		Administration	282,410	227,669	95,242
	Forest Genetics Council				
		Operational Tree Improvement Program	44,587	43,555	21,911
	BC Science Council				
		Research	33,821		
Ministry Contracts					
		Recreation		15,534	
Department of Fisheries and Oceans					
		Salmonid Enhancement Program	14,700		
TOTAL			**$3,649,954**	**2,539,602**	**1,896,288**

[4] Includes WRP

APPENDIX I

TREE FARM LICENCE 19

2001 SCALED PRODUCTION

CUBIC METRES

Operation	Mark	Volume	Total
Gold River	19/36	841	
	19/39	12 905	
	19/40	2 056	
	19/41	-600	
	19/43	3 669	
	19/45	5 962	
	19/47	5 908	
	19/48	262	
	19/49	16 491	
	19/82	201	
	19/91	4 844	
	AZ002	56	
	T0472A	2 545	
	19/714	19 419	
	19/80	17 297	
	19/83	8 925	
	19/84	3 952	
	19/85	19 745	
	19/88	2 467	
	19/601	37 058	
	19/602	21 963	
	19/603	33 182	
	19/604	44 428	
	19/81	10 209	
	19/93	715	
	19/94	18	
	19/95	6 083	
	19/97	10 974	
	19/99A	916	
	19/99B	1 782	
	T0472B	34	
	T0472C	100	
	19/605	27 942	
	19/607	4 835	
	19/608	10 620	
	19/609	14 589	
	19/610	9 409	
	19/613	23 173	
	19/614	9 128	
	19/616	14 038	
	T0472D	1 051	
	T0536B	518	
	T0536C	2 002	
			411 711

Operation	Mark	Volume	Total
Gold River Contract	19/49	2 714	
	19/83	19 658	
	19/84	68	
	19/87	-34	
	19/88	121	
	19/92	104	
	19/600	8 756	
	19/601	13 785	
	19/604	15 994	
	19/81	23 129	
	19/89	79	
	19/98	-73	
	19/610	18 661	
	19/611	6 850	
	19/615	11 744	
	19/617	3 737	
			125 293
Head Bay	19/604	48 466	
	19/96	4 986	
	19/97	3 338	
	19/607	5 581	
	19/719	13 997	
			76 366
Houston	19/13	12 191	
	19/708	0	
	19/709	0	
	19/713	0	
	T0397B	0	
	19/724	6 095	
	19/725	19 503	
	19/726	5 212	
	19/731	5 561	
			48 562
Jacklah	19/717	224	
	19/718	9 192	
	19/720	18 283	
	19/722	13 043	
	19/608	6 774	
	19/721	3 371	
	19/727	16 873	
	19/728	15 782	
	19/729	33 081	
	19/733	4 006	
	19/735	1 251	
			121 877
Nootka	19/62	632	
	19/405	51	
	19/406	58	
			741
Silverado	19/703	0	
	19/717	398	
	19/720	7 677	
	19/730	17 404	
	19/734	6 896	
			32 375

Operation	Mark	Volume	Total
Silverado/Houston	19/705	11 568	
			11 568
Tahsis	19/97	404	
	19/99B	159	
	NBKFM	4 587	
	19/616	5 761	
	19/111	24 188	
	19/112	28 210	
	19/736	8 242	
			71 550
Zeballos	19/30	2 031	
	19/56	12 134	
	19/57	4 663	
	19/59	38 915	
	19/97	14 772	
	19/99A	193	
	19/99B	17	
	19/400	1 976	
	19/402	16 399	
	19/403	17 768	
	19/404	28 009	
	19/58	8 847	
			145 724
Grand Total			**1 045 767**

Total Private and Licence	10 892
Total Crown	1 034 875
Grand Total	1 045 767
Total Company and Phase Contractor	741 588
Total Harvested under Full Contracts	304 179

APPENDIX II

TREE FARM LICENCE 19

VOLUME CHARGED TO ALLOWABLE ANNUAL CUT

CUBIC METRES

Mark	Crown Grant	Licences	Crown	Total
19/13			12191	
19/30			2031	
19/36			841	
19/39			12905	
19/40			2056	
19/41			-600	
19/43			3669	
19/45			5962	
19/47			5908	
19/48			262	
19/49			19205	
19/62			632	
19/708				
19/709				
19/82			201	
19/91			4844	
AZ002	56			
T0472A		2545		
19/703				
19/705			11568	
19/713				
19/714			19419	
19/80			17297	
19/83			28583	
19/84			4020	
19/85			19745	
19/87			-34	
19/88			2587	
19/92			104	
19/56			12134	
19/57			4663	
19/59			38915	
19/600			8756	
19/601			50843	
19/602			21963	
19/603			33182	
19/604			108888	
19/717			621	
19/718			9192	
19/720			25960	
19/722			13043	

Mark	Crown Grant	Licences	Crown	Total
19/81			33338	
19/89			79	
19/93			715	
19/94			18	
19/95			6083	
19/96			4986	
19/97			29488	
19/98			-73	
19/99A			1108	
19/99B			1958	
NBKFM	4587			
T0397B				
T0472B		34		
T0472C		100		
19/605			27942	
19/607			10416	
19/608			17394	
19/609			14589	
19/610			28070	
19/613			23173	
19/614			9128	
19/616			19798	
T0472D		1051		
T0536B		518		
T0536C		2002		
19/611			6850	
19/615			11744	
19/617			3737	
19/400			1976	
19/402			16399	
19/403			17768	
19/404			28009	
19/58			8847	
19/721			3371	
19/727			16873	
19/728			15782	
19/729			33081	
19/733			4006	
19/735			1251	
19/730			17404	
19/734			6896	
19/724			6095	
19/725			19503	

Mark	Crown Grant	Licences	Crown		Total
19/726			5212		
19/731			5561		
19/719			13997		
19/111			24188		
19/112			28210		
19/736			8242		
19/405			51		
19/406			58		
TOTAL	**4642**	**6249**	**1034875**		**1045767**
Residue (Recognized residue survey volumes associated with 2001 MOF S&R invoices)					40605
TOTAL CHARGEABLE					**1086372**

APPENDIX III

TREE FARM LICENCE 19

CURRENT CUT CONTROL PERIOD

ANNUAL ALLOWABLE CUT

CUBIC METRES

Year	Allowable Annual Cut Available to Licencee	Chargeable Cut
1997	932 132	890 499
1998	932 132	544 599
1999	932 132	558 196
2000	932 132	926 916
2001	916 203	1 086 372
TOTAL	**4 644 731**	**4 006 581**

For the 1997 through 2001 cut control period the licence harvested 86.3% of the available AAC. In 2001 the licensee harvested 118.6% of the AAC.

APPENDIX IV

TREE FARM LICENCE 19

HISTORICAL CUT CONTROL PERFORMANCE

1954 - 2001

CUBIC METRES

Cut Control Period	Allowable Cut Available to Licencee	Chargeable Cut
1954/55-1956	566,336	601,910
1957-1961	1,551,762	1,694,946
1962-1966	1,993,506	1,861,360
1967-1971	3,296,078	3,393,928
1972-1976	4,275,840	4,043,233
1977-1981	4,820,935	4,714,734
1982-1986	4,901,672	4,472,702
1987-1991	4,729,462	4,730,242
1992-1996	4,660,660	4,367,849
1997-2001	4,644,731	4,006,581
TOTAL	**35,440,982**	**33,887,485**

APPENDIX V

TREE FARM LICENCE 19

TIMBER LOSS LEDGER

Year	Source of Damage	Area (ha)	Recoverable Volume (m^3)	Non-Recoverable Volume (m^3)	Volume Recovered (m^3)
2001	WIND	15.4	7000	2800	0
2000		0	0	0	0
1999	WIND	6.2	2600	850	1400
	SLIDE	8.2	0	6000	0
1998	WIND	4.1	2300	1200	0
1997	WIND	9.8	7300	200	0
1996		0	0	0	0
1995	WIND	35.7	25 800	0	19 000
1994		0	0	0	0
1993	WIND	4.3	2000	0	0
TOTAL		**83.7**	**47 000**	**11 050**	**20 400**

APPENDIX VI

TREE FARM LICENCE 19

LOG FLOW AND WOOD CONSUMPTION

(APPROXIMATE)

WESTERN FOREST – WESTERN PULP – DOMAN INDUSTRIES – DOMAN WESTERN LUMBER

SAWMILL PULPMILL	Tenure / Source (Thousand Cubic Metres)													Chips to Woodfibre (Thousand Units)
	TFL 6	TFL 19	TFL 25	FL A19231 Strathcona	FL A19240 Kingcome	FL A16845 Mid Coast	FL A16847 Mid Coast	FL A19205 Fraser	FL A19228 Sunshine	FL A19216 Soo	Other Tenures	Inventory / Purchase	Total Consumption	
Duke Point	279		33		10						1	-19	304	45
Chemainus												71	71	
Ladysmith	136				3	20						46	205	
Cowichan	13	30	63	15	3	9	7	5	1	3		204	353	
Silvertree	37	42	27	20	8	10	5	1		1	1	22	174	22
Vancouver			44										44	9
Tahsis		80											80	17
Saltair		129		23			38	10	11	22		65	298	
Nanaimo	87	196	8	32		16	96	15	9	11		151	621	
Log Merchandiser	27	49	38	7	1	8	7	12	4	7		318	478	187
Port Alice Pulp Mill	196	241	21	40	8		37				1	175	719	
Trades / Sales	195	279	160	80	35	34	43	7	2	4	1	224	1064	(6)
Squamish Pulp Mill Chips														
• Purchased														158
• Consumed														455
TOTAL LOGS	**970**	**1046**	**394**	**217**	**68**	**97**	**233**	**50**	**27**	**48**	**4**	**1257**	**4411**	**887**

APPENDIX VII - A

TREE FARM LICENCE 19

TIMBER HARVESTING OPERABILITY REPORT - 2001

TFL 19 - Area harvested (ha) within each operability category							
		Operability					
Leading Species	Ht. class	Oc	Oh	Oce	Ohe	I	Grand Total
Hw	1	4.9					4.9
	2	5.7					5.7
	3	77.9	3.8		12.0	18.6	112.3
	4	251.7	37.6		0.0	9.5	298.8
	5	166.3	24.7			6.9	198.0
	6	21.9	2.0			1.8	25.7
Hw Total		521.8	68.1		12.1	36.8	638.7
Ba	1	0.4					0.4
	4	17.1					17.1
	5	21.3	1.9			1.1	24.3
	6	4.9				0.2	5.1
Ba Total		43.7	1.9			1.3	46.9
Cw	1	0.0					0.0
	2	3.9	0.3			3.3	7.5
	3	35.5	0.0	1.7	6.4	0.5	44.1
	4	93.5	11.7		0.2	4.0	109.4
	5	33.6	6.7			2.4	42.7
	6	0.3					0.3
Cw Total		166.9	18.7	1.7	6.6	10.2	204.1
Fd	1	0.8					0.8
	2	4.5				0.3	4.7
	3	26.6				5.4	32.0
	4	50.9	5.3			7.6	63.7
	5	58.8	0.4			2.6	61.8
	6	8.6				0.1	8.8
Fd Total		150.2	5.7			16.0	171.9
Yc	2	0.9				7.4	8.3
	3	70.7			2.8	4.4	77.9
	4	13.5	3.1			0.6	17.3
Yc Total		85.2	3.1		2.8	12.4	103.5
Grand Total		974.5	97.5	1.7	21.5	76.5	1171.7

APPENDIX VII - B

TREE FARM LICENCE 19

TIMBER HARVESTING OPERABILITY REPORT - 2001

TFL 19 - Area harvested (ha) from terrain stability class IV and V areas								
		Terrain Stability Class IV		Class IV Total	Terrain Stability Class V		Class V Total	Grand Total
Leading Species	Ht. class	<80% slope	>=80% slope		<80% slope	>=80% slope		
Hw	1	0.2	0.1	0.3	0.1		0.1	0.5
	2	0.2		0.2				0.2
	3	33.5	6.2	39.7	0.0	0.0	0.1	39.7
	4	63.1	5.3	68.3	2.2	0.8	3.1	71.4
	5	27.9	9.0	37.0	1.9	1.3	3.2	40.2
	6	2.7	0.4	3.0	0.8	0.4	1.3	4.3
Hw Total		127.6	20.9	148.5	5.2	2.6	7.8	156.3
Ba	1	0.1		0.1	0.1		0.1	0.1
	4	0.3		0.3				0.3
	5	7.1	2.5	9.6	0.1		0.1	9.7
	6	0.3		0.3				0.3
Ba Total		7.8	2.5	10.3	0.1		0.1	10.4
Cw	2	0.4	0.1	0.5				0.5
	3	8.3	2.3	10.6	0.9		0.9	11.5
	4	13.7	4.1	17.8	4.4	3.6	8.0	25.8
	5	7.2	3.2	10.4	3.9	2.9	6.7	17.1
Cw Total		29.6	9.7	39.2	9.1	6.5	15.6	54.8
Fd	2	1.9	0.1	2.0				2.0
	3	8.7	0.5	9.2				9.2
	4	19.1	5.4	24.5				24.5
	5	14.6	2.4	17.0				17.0
	6	0.4		0.4				0.4
Fd Total		44.7	8.4	53.1				53.1
Yc	2	0.6	0.1	0.7				0.7
	3	11.0	3.5	14.5	0.8	0.8	1.6	16.1
	4	2.4		2.4	0.1	0.0	0.2	2.5
Yc Total		14.0	3.6	17.5	0.9	0.9	1.7	19.3
Grand Total		223.7	45.0	268.6	15.3	9.9	25.2	293.8

APPENDIX VIII

TREE FARM LICENCE 19

SMALL BUSINESS FOREST ENTERPRISE PROGRAM SUMMARY

Year	Volume Available to SBFEP (m^3)	Licence No.	Licencee	Area Logged (ha)	Volume Scaled (m^3)	Residue (m^3)	Chargeable Volume (m^3)
1988	22 934			0			
1989	45 868			0			
1990	45 868			0			
1991	45 868			0			
1992	45 868	A3880	Dorman Logging	59.5	46 179	2 207	48 386
1993	45 868	A39588	CR Mills	43.4	25 996	283	26 279
		A34814A	Coulson Heli	85.9	76 135		76 135
1994	45 868	D72095	CR Mills	3.2	2 240		2 240
		A34814A	Mokko Manufacturing	9.0	8 692		8 692
		A34814C	Mokko Manufacturing	54.7	44 009		44 009
1995	45 868	A34814C	Mokko Manufacturing	7.9	6 742		6 742
		A34814D	Mokko Manufacturing	62.2	58 013	2 679	60 692
		A34814A	Mokko Manufacturing	12.0	9 590	966	10 556
1996	45 868			0			
1997	45 868	A43314	Hayes	14.0	14 297	692	14 989
		A34814H	Mokko Manufacturing	17.4	14 553	569	15 122
1998	45 868	A34814B	Mokko Manufacturing	20.5	23 592	1 319	24 911
		A34814M	Mokko Manufacturing	54.9	55 345	4 592	59 937
		A34814J	Mokko Manufacturing	25.4	23 654	2 191	25 845
1999	45 868			0			
2000	45 868	A34814P	Mokko Manufacturing	14.2	11 381	1 071	12 452
		A34814Q	Mokko Manufacturing	23.6	25 135	1 839	26 974
		A34814U	Mokko Manufacturing	22.7	15 858	3 125	18 983
		A39591B	Green River Timber	20.5	17 452	452	17 904
		A39591C	Green River Timber	21.2	24 080	373	24 453
2001	45 868			0			
TOTAL	**665 086**			**572.2**	**502 943**	**22 358**	**525 301**

APPENDIX IX

TREE FARM LICENCE 19

COASTAL CONTRACTOR CLAUSE PERFORMANCE REPORT

CALENDAR YEAR 2001

Reference	Description			Source
1)	Total AAC of TFL approved by Chief Forester that is available to the Licencee	916 203	m^3	CF's approval letter for Management Plan 9
2)	AAC attributable to Schedule 'B' lands that is available to the Licencee	871 728	m^3	Derived from the approved MP 9
3)	Volume of timber harvested	1 045 767	m^3	Obtained from the Regional Timber Officer of the District Manager; the total volume of timber that is billed to the Licencee under the Licence during the calendar year.(Section 35.1, subsections J, K & L of the Forest Act)
4)	Harvested volume attributed to Schedule 'B' lands	995 003	m^3	Calculated: (#2 / #1) x #3
5)	Total volume contracted under full and phase contracts	509 932	m^3	Licencee Records
6)	Total volume contracted as expressed as a per cent of compliance required	102.5	%	Calculated: (#5 / (#4 x 0.5)) x 100

Licencee: Western Forest Products Limited

Completed by: Kerry McGourlick, R.P.F.

Date Report Completed: June 12, 2002.

APPENDIX X

TREE FARM LICENCE 19

PHASE AND FULL CONTRACTORS

Contractor	Phase
Frank Beban Logging Ltd.	Full Yarding Heli yarding Falling Loading Hauling
Cypress Creek Logging Ltd.	Falling Loading Yarding
Friell Lake Logging Ltd.	Full Heli Yarding
Lemon Point Logging (1990) Ltd.	Falling Loading Yarding
Russell & Lilly Limited	Full
Spirit Lake Timber Limited	Falling Hauling Loading Yarding
Stan McLean Trucking Ltd.	Hauling
Totem Bar Contracting Ltd.	Road
Westside Roadbuilding Ltd.	Road
Upland Excavating Ltd.	Road

APPENDIX XI

TREE FARM LICENCE 19

GENERAL CONTRACTORS

Name	Work	Operation
A.H. Jackson Corporation	Hauling	Gold River
Access Forest Management	Engineering, Cruising	Zeballos
Accurate Locations Surveys	Site Surveys	Zeballos
All-Brawn Industries	Shake/Shingle Cutters	Zeballos
Aquaterra	FRBC	Nootka Region
Arbour Tech	Terrain Assessments	Zeballos
Arcas Consulting Archaeologists	Archaeological Assessments	NCA
Aztec GeoScience	Terrain Assessments	Gold River, Zeballos
B.A. Blackwell and Associates	Fertilization Trial	Nootka Region
B.C. Conservation Foundation	Goshawk Inventory	Nootka Region
Black Creek Mechanical	Vehicle Maintenance	NCA
Butch Carroll Trucking	Hauling	Gold River
Calverley Forestry Services	Silviculture	NCA
Cave Management Services	Cave Assessments	NCA
Coast Forest Management	Silv, Eng., Cruising, Archaeological Assess.	Gold River, NCA, Zeballos
Coastal Business Services	Engineering/Clerical/Silviculture	Gold River
Conuma Excavating	Road Maintenance, FRBC Recreation	Nootka Region
Cypress Creek Logging	Falling, Yarding, Loading	Gold River
Cypress Logging	Poling	Zeballos
D.R. Clough Consulting	Stream Classification	Gold River, NCA
Dobson Engineering	Watershed Assessment	Gold River, NCA, Zeballos
Donner Lake Logging	Cedar Poling	Gold River, NCA
Doulyn's Contracting	Deactivation, FRBC WRP/Recreation	Nootka Region, Gold River
DR Systems	Silviculture Data Management	Gold River, NCA, Zeballos
Ed MacDonald	Seedling Assessment	Gold River, NCA, Zeballos
Fieber Rock Engineering	Engineering	Gold River
Fishfor Contracting	Fish Surveys	Zeballos, NCA
Frank Beban Logging Ltd.	Full Phase Logging	Gold River, NCA
French Creek Contracting	FRBC Coordinator	Nootka Region
Friell Lake Logging	Full Phase Logging	NCA
Glen Wilson	FRBC Coordinator	Nootka Region,GR
Gold River Contracting	Construction	Gold River
Gold River Marine Service	Marine Repairs	Gold River, NCA
Gold River Rainbow Services	Trucking	Gold River, NCA
Gold River Resources Ltd.	Maintenance/Creek Cleaning	NCA
Golder and Associates	Terrain , Windthrow Assessments	NR, GR, NCA, Zeballos
Gurney Contracting	Excavator/Deactivation, WRP/Recreation	Nootka Region, GR, NCA
H.W.Argent P.Eng	Engineering, Bridge Designs	Zeballos
Hang'N Creek Contracting	Excavator, Deactivation	Gold River
Harvest Moon Adventure	Shake/Shingle Cutting	Zeballos
House of Caves	Cave/Karst Assessment	Gold River
Howard Larsen	FRBC Stream Assessments	Nootka Region
Islands West Scaling	Residue Surveys	Gold River, Zeballos
JRP	Plant Wizard Establishment	Gold River
J. Termuende Hydrological	Hydrological Assessments	Gold River
Jack and Sons Silviculture	Silviculture, Creek Cleaning	Zeballos
Kelsey Forest Engineering	Engineering	NCA
Lemon Point Logging	Falling, Yarding, Loading	Gold River
M&L Holdings	Tree Planting	NCA
Mt. Leighton	Silviculture/Creek Cleaning	Gold River
Maquinna Forest Products	Helicopter Logging	Zeballos, Gold River
Maquinna Development Corp.	Silviculture	Zeballos
Melinda Dennison	Office Support	Gold River

Name	Work	Operation
Mowachaht Muchalaht Band	FRBC	Gold River
Noel Roddick Ltd.	Fertilizer Supplier	Gold River
Nootka Sound Service	Freight delivery	NCA
Northwest Hydraulic Consultants	WRP Site Supervision	Gold River, Nootka Region
NTS Trucking	Trucking	Gold River
Olympic Resource Management	Cruise Compilation	Gold River
Osprey Silviculture	Planting	Zeballos
Partners in Grime	Janitorial	Zeballos
Peter Bruce & Associates	Fisheries Assessments	NCA
Phillip Anaylitical	Leagh Creek Monitoring	Gold River
Piteau Associates	Geotechnical/Hydrological Consultants	Gold River
Quinsam Excavating	Excavator, Deactivation	Gold River
R. Forrest Contracting	Silviculture	NCA,Zeballos
R.A.S. Roots	Public Education	Nootka Region
R.G. McCredy Forest Consulting	Cruising, Residue Surveys	NCA
Rain Forestree	Silviculture	NCA
Rainbow Services	Seedling Deliveries	Gold River
Richard Dennison	Recreation Maintenance	Gold River
Ridinger & Cooke Log Scaling	Log Scaling	NCA
Rugged Mountain Contracting	Silviculture, Engineering	Nootka Region, Zeballos
Russell & Lily Ltd.	Full Phase Logging	NCA
Safety on Site	Traffic Controllers	Gold River
Shawn Hamilton and Associates	FRBC Spawning Channel Assessments	Nootka Region, GR
Shawn Verhagen	Engineering Data Program	Gold River
Simard Trucking	Trucking	Gold River
Sitka Silviculture	Planting	Gold River
Spirit Lake Timber Ltd.	DLS Services, Full Phase Logging	NCA
Stan McLean Trucking	Hauling	Zeballos
Stonecroft Project Engineering	Engineering	Gold River, NCA
Sun West Helicopters	Aerial Pruning	Zeballos
Sure Span Construction	Bridge Construction	Gold River, NCA
T.M.R. Enterprises	Engineering	NCA
Taylor Contracting	Cedar Salvage	NCA
Thurber Engineering	Terrain Assessments	Nootka Region, Gold River, NCA
Timberline Forest Inv Consultants	Mapping	NCA, Zeballos
Totem Bar Contracting	Road Construction	Zeballos
Tripp Biological Consultants	FRBC Spawning Channel Assessments	Nootka Region
Tsitika Contracting	Cedar Salvage	Gold River
Upland Excavating	Road Building	NCA
Vince Poulin	Riparian Assessments	Gold River
Vancouver Island Helicopter	Logging/Transportation	Nootka Region, NCA
Watson Forest Services	Timber Cruising	Gold River
West Side Roadbuilding	Road Building	Gold River, NCA
West Coast Helicopters	Aerial Fertilization	Gold River
Westwood Contracting	Road Maintenance/Deactivation	Zeballos
Wolf Snare Contracting	Road Deactivation	Nootka Region
Yellow Point Propagation	Cone Collection	Gold River

APPENDIX XII

TREE FARM LICENCE 19

SPECIAL AND NON-TIMBER FOREST PRODUCTS

Program	Product		Gold River	Nootka Contract Administration	Zeballos	TOTAL
Special Products	Shake Bolts	m^3	419.3	25.8	255.2	700.3
		$value	153,401	9,439	93,365	256,205
	Shingle Blocks	m^3	32.0	6.4	116.0	154.4
		$value	7,246	1,449	26,268	34,963
	Cypress Cants	m^3	0	0	30.1	30.1
		$value	0	0	11,288	11,288
	Cedar Log Salvage	m^3	0	0	15.0	15.0
		$value	0	0	1,800	1,800
Non-Timber Forest Products	Honey	l	60	0	0	60
		$value	0	0	0	
	Salal	kg	1894	0	0	1894
		$value	5,000	0	0	5,000
	Yew Bark	kg	0	0	0	
		$value	0	0	0	
	Cedar Oil	l	0	0	0	
		$value	0	0	0	
	Sand and Gravel	m^3	0	0	0	
		$value	0	0	0	
	Chanterelle Mushroom	kg	1364	0	0	1364
		$value	9,000	0	0	9,000
	Pine Mushroom	kg	909	0	0	909
		$value	50,000	0	0	50,000

APPENDIX XIII

TREE FARM LICENCE 19

RESEARCH SUMMARY

PERMANENT PLOTS AND TRIALS

Trial (*Year Established)	Operation(s)	Measurement (Years)	Reports (Years)
		Forest Nutrition	
Cedar and Amabilis Fir Volume Trials *(2001)*	Zeballos, Nesook Bay, West Road, Galiano Bay	2000	Est. Rep. (2001)
Cedar and Amabilis Fir Screening Trials *(1999)*	Zeballos, Gold River, Nootka Contract	2000, 1999	Est. Rep. (2000)
Hemlock and Cedar Screening Trials *(1996)*	Galiano	1997	Est. Rep. (1998)
Amabilis Fir Fertilization Trial *(1996)*	Saunders	2000, 1998, 1997, 1996,1995	Est. Rep. (1997)
		Growth and Yield Monitoring	
Survey Plots *(1994)*	Gold River	1994	
Survey Plots *(1993)*	Gold River	1993	
Survey Plots *(1992)*	Gold River	1992	
Survey Plots *(1991)*	Gold River	1991	
Survey Plots *(1990)*	Gold River	1990	
Survey Plots *(1979)*	Gold River	1987/90, 1979	
Survey Plots *(1978)*	Gold River	1989/90/92, 1978	
Survey Plots *(1977)*	Gold River	1994, 1987/90, 1977	
Survey Plots *(1976)*	Gold River	1991, 1987/89, 1976	
Survey Plots *(1975)*	Gold River	1989/90, 1975	
Survey Plots *(1974)*	Gold River	1990, 1983/87, 1976/79, 1974	
Survey Plots *(1969)*	Tahsis, Zeballos	1989, 1987/89/90, 1976/79/89, 1972/73/79, 1969	
Survey Plots *(1968)*	Gold River	1991, 1988/90/92, 1978/87/90, 1978, 1970/72, 1968	
Survey Plots *(1967)*	Gold River	1988/89/90, 1976/77/88, 1970/73/77, 1967	
Survey Plots *(1966)*	Gold River	1988, 1976/88, 1970/71, 1966	
Survey Plots *(1964)*	Gold River	1988, 1977, 1970, 1964	
Survey Plots *(1963)*	Gold River, Tahsis	1990, 1980/88, 1972/77/78, 1973, 1963	
Survey Plots *(1961)*	Gold River, Tahsis	1978, 1973, 1970, 1961	
Survey Plots *(1957)*	Gold River	1988/90/92, 1978, 1973, 1957	
		Other	
Planting Technique Trial *(1997)*	Gold River	1998, 1997	

*Year indicates last growing season.

APPENDIX XIV

TREE FARM LICENCE 19

SEED ORCHARD PRODUCTION REPORT

Seedlot	Species	Orchard	Zone	BV (vol 60)	Elevation (m)	Latitude	Volume (hl)	Seed Weight (kg)	Seedlings (000s)	Comments
61091	Fdc	166	M/GL	10	495	49º 11’	9.2	4.6	87.6	Custom Lot - High Elevation
61168	Fdc	166	M/GL	14	313	48º 54’	5.5	3.7	90.5	Custom Lot-High BV
61169	Fdc	166	M/GL	9	335	49º 16’	53.5	30.5	681.2	Bulk Lot
61170	Fdc	169	M/GL	10	245	49º 02’	6.4	2.2	71.7	Bulk Lot
						SUBTOTAL	74.7	41.0	931.0	
61171	Cw	128	M	2	325	50º 39’	6.8	7.4	1952.1	Custom Lot -High Elevation
61172	Cw	128	M	2	149	50º 48’	58.3	66.3	18239.8	
61173	Cw	128	M	2	150	50º 47’	40.0	41.7	10707.3	
61174	Cw	155	M	2	328	52º 46’	2.2	1.2	270.9	Custom Lot - High Elevation
						SUBTOTAL	107.3	116.6	31170.1	
61175	Hw	170	M	15	160	50º 04’	1.4	0.9	170.5	First Crop
						SUBTOTAL	1.4	0.9	170.5	
TOTAL							**183.4**	**158.5**	**32271.6**	

APPENDIX XV

TREE FARM LICENCE 19

NURSERY PRODUCTION REPORT

Species	Size	Seedlings Produced (000s)			Crop Portion
		Fall	Spring	Total by Size	
Cw	313B		174,400	174,400	
	410A	52,780	413,300	466,080	
	412A	27,280	118,510	145,790	
	415C	11,560	578,200	589,760	
	615A		20,040	20,040	
Subtotal		91,620	1,304,450	1,396,070	50.0%
Fdc	410A	25,860	13,650	39,510	
	412A	27,230	28,900	56,130	
	415C		535,470	535,470	
	615A		26,620	26,620	
Subtotal		53,090	604,640	657,730	23.5%
Hw	313B		168,800	168,800	
	410A	78,420	96,290	174,710	
	412A	21,660	8,560	30,220	
	415C		283,360	283,360	
Subtotal		100,080	557,010	657,090	23.5%
Ss	410A		38,890	38,890	
Subtotal			38,890	38,890	1.4%
Sx	415c	29,490	9,170	38,660	
Subtotal		29,490	9,170	38,660	1.4%
Sxs	415C	6,660		6,660	
Subtotal		6,660		6,660	0.2%
Misc	412A	150		150	
Subtotal		150		150	N/A
TOTAL		281,090	2,514,160	2,795,250	100.0%

APPENDIX XVI

STAND ESTABLISHMENT PROJECTS SUMMARY (BASIC SILVICULTURE)

Program	Project		Gold River	Nootka Contract Administration	Zeballos	TOTAL
Site Preparation	Broadcast Burn	ha	0	0	0	0
	Pile Burn	ha	3.6	0.8	0	4.4
	Mechanical	ha	0	0	0	0
	Crown / Licence	ha	3.6	0.8	0	4.4
	Crown Grant (MF)	ha	0	0	0	0
TOTAL AREA SITE PREPARED			3.6	0.8	4.4	4.4
Planting	Original	ha	710.6	386.1	83.4	1,180.1
	Replanting (Plantations)	ha	125.3	24.7	0	150.0
	Roadside	ha	16.0	1.4	0	17.4
TOTAL AREA PLANTED			851.9	412.2	83.4	1,347.5
	Number of Seedlings	Cw	130,992	145,875	27,115	303,982
		Hw	271,520	39,220	18,123	328,863
		Ba	125,055	70,250	2,403	197,708
		Fdc	216,701	63,010	19,245	298,956
		Yc	40,957	14,050	13,445	68,452
		Ss	14,070	1,100	860	16,030
		P	3,518	0	0	3,518
		Misc	30,769	0	158	30,927
TOTAL SEEDLINGS PLANTED			833,582	333,505	81,349	1,248,436
TOTAL SEEDLINGS FERTILIZED			678,582	333,505	81,349	1,093,436
Browse Guard Installations		#	2,280	3,939	0	6,219
		ha	11.4	6.7	0	18.1
Stocking Surveys	Plantation Regeneration	ha	580.2	377.8	49.1	1,007.1
	Sufficiently Restocked	ha	532.5	374.2	49.1	955.8
	Crown / Licence	ha	532.5	374.2	49.1	955.8
	Crown Grant (MF)	ha	0	0	0	0
	NSR	ha	47.7	3.6	0	51.3
	Crown / Licence	ha	47.7	3.6	0	51.3
	Crown Grant (MF)	ha	0	0	0	0
		ha	0	0	0	0
		ha	0	0	0	0
		ha	0	0	0	0
Plantation Survival Assessments		ha	345.2	0	0	345.2
		%	93	0	0	93
Free Growing Surveys	Free Growing	ha	354.4	365.3	244.6	964.3
	Crown / Licence	ha	354.4	365.3	244.6	964.3
	Crown Grant (MF)	ha	0	0	0	0
	Not Free Growing	ha	196.0	243.6	23.2	462.8
	Crown / Licence	ha	196.0	243.6	23.2	462.8
	Crown Grant (MF)	ha	0	0	0	0
	Other Classification	ha	0	0	2.8	2.8
	Crown / Licence	ha	0	0	0	0
	Crown Grant (MF)	ha	0	0	2.8	2.8
TOTAL AREA SURVEYED		ha	550.4	608.9	270.6	1,429.9
Brushing and Weeding	Manual	ha	28.3	41.6	17.7	87.6
	Mechanical	ha		0.8	0	0.8
	Stem Injection	ha	0	0	0	0
	Aerial Foliar	ha	0	0	0	0
	Ground Foliar	ha	2.5	0	0	2.5
	Crown / Licence	ha	30.8	42.4	17.7	90.9
	Crown Grant (MF)	ha	0	0	0	0
TOTAL AREA TREATED		ha	30.8	42.4	17.7	90.9
Silviculture Prescriptions		No	24	20	10	54
		ha	540.3	491.2	200.4	1,231.9

APPENDIX XVII

REGENERATION BALANCE SHEET

Western Forest Products' Tree Farm Licences

Item	TFL 6	TFL 19	TFL 25	TOTAL
Opening Balance (NSR at 2001 01 01)	2313 ha	1818 ha	1677 ha	5808 ha
Debits				
2001 Denudations	1073 ha	1172 ha	591 ha	2854 ha
2001 SBFEP	0 ha	0 ha	76 ha	76 ha
2001 Surveys	6 ha	51 ha	14 ha	72 ha
Credits				
2001 Planting	1125 ha	1348 ha	751 ha	3224 ha
2001 Natural Regeneration	0 ha	0 ha	0 ha	0 ha
2001 Other	0 ha	0 ha	0 ha	0 ha
SBFEP Regen	34 ha	0 ha	86 ha	120 ha
Closing Balance (NSR at 2001 12 31)	2233 ha	1693 ha	1522 ha	5466 ha

APPENDIX XVIII

TREE PLANTING HISTORY

ALL TENURES – WESTERN FOREST PRODUCTS

Number of Seedlings (000s)

Year	TFL 6	TFL 19	TFL 25	WFP Misc Properties	Other Properties	TOTAL
Pre 1965	701.4	3502.0	2531.1	3782.4		10 516.9
1965	361.5	425.0	298.5	247.7		1 332.7
1966	325.3	726.0	432.8	0.0		1 484.1
1967	422.9	434.0	547.6	285.8		1 690.3
1968	444.9	539.0	645.2	46.7		1 675.8
1969	989.6	474.0	446.1	327.3		2 237.0
1970	751.7	535.0	341.4	136.5		1 764.6
1971	529.4	1123.0	586.7	158.2		2 397.3
1972	912.6	912.0	295.3	407.0		2 526.9
1973	600.5	699.0	772.4	162.0		2 233.9
1974	459.4	1324.0	363.8	58.0		2 205.2
1975	777.7	942.0	199.4	68.0		1 987.1
1976	777.0	709.0	807.2	58.2		2 351.4
1977	553.9	631.0	757.6	172.4		2 114.9
1978	494.0	494.0	555.6	38.8		1 582.4
1979	662.8	524.0	749.0	12.3		1 948.1
1980	491.5	473.0	493.6	24.2		1 482.3
1981	1047.6	579.0	803.9	29.9		2 460.4
1982	1198.3	735.0	827.7	16.9		2 777.9
1983	888.0	566.0	669.0	55.4		2 178.4
1984	882.4	325.0	809.0	102.7		2 119.1
1985	701.8	452.0	522.0	69.6		1 745.4
1986	1347.1	346.0	631.0	57.0		2 381.1
1987	2256.6	686.0	1297.8	329.3		4 569.7
1988	1844.0	563.0	982.8	173.0		3 562.8
1989	1169.2	755.0	735.6	287.8		2 947.6
1990	1405.7	707.0	712.4	354.2		3 179.3
1991	1491.1	439.0	842.8	60.1		2 833.0
Pre 1992	0.0	0.0	0.0	0.0	5268.8	5 268.8
1992	1550.9	757.0	673.9	95.7	232.8	3 310.3
1993	1574.6	683.0	639.8	240.6	377.6	3 515.6
1994	1712.2	674.0	546.0	226.2	790.6	3 949.0
1995	2003.4	1040.0	853.0	160.4	894.5	4 951.3
1996	2111.0	1140.0	1090.0	579.4	3.6	4 924.0
1997	1944.8	1067.0	951.9	52.2	0.0	4 015.9
1998	1473.6	675.6	652.2	1522.4	28.8	4 352.6
1999	1088.0	382.9	413.0	901.6	21.9	2 807.4
2000	1042.0	858.4	752.5	1238.6	0.0	3 891.5
2001	1217.3	1248.4	509.4	1197.1	54.9	4227.1
TOTAL	**40205.7**	**29145.3**	**26739.0**	**13735.6**	**7673.5**	**117499.1**

.

APPENDIX XIX

STAND MAINTENANCE PROJECTS SUMMARY

Program	Project		Gold River	Nootka Contract Administration	Zeballos	TOTAL
Juvenile Spacing	Total	ha	74.1	0	42.2	116.3
	Crown / Licence	ha	74.1	0	42.2	116.3
	Crown Grant (MF)	ha	0	0	0	0
Pruning	Total	ha	66.3	0	0	66.3
	Crown / Licence	ha	66.3	0	0	66.3
	Crown Grant (MF)	ha	0	0	0	0
Fertilization	Total	ha	1363.4	0	0	1363.4
	Crown / Licence	ha	1363.4	0	0	1363.4
	Crown Grant (MF)	ha	0	0	0	0
Commercial Thinning	Total	ha	0	0	0	0
	Crown / Licence	ha	0	0	0	0
	Crown Grant (MF)	ha	0	0	0	0
Stand Management Prescriptions		No.	7	0	2	9
		ha	1993.4	0	60.6	2054.0

APPENDIX XX

TREE FARM LICENCE 19

HISTORICAL SUMMARY OF ACTIVITIES

Year	Denuded (ha)	Prescribed/ Pile Burning (ha)	Mechanical Site Preparation (ha)	Planted (ha)	Trees Planted	Brushing (ha)	Fertilization (ha)	Spacing (ha)	Pruning (ha)	Commercial Thinning (ha)
Pre 1965	5 065	3 089	0	4 731	3 502 000	70	0	83	0	0
1965	420	577	0	483	425 000	5	0	28	0	0
1966	585	382	37	790	726 000	49	0	12	0	0
1967	547	616	0	564	434 000	178	0	140	0	0
1968	683	545	0	639	539 000	98	0	155	0	0
1969	683	340	0	744	474 000	92	0	204	0	0
1970	825	594	0	682	535 000	0	0	274	0	0
1971	1 205	588	0	1 533	1 123 000	16	0	57	0	0
1972	623	299	0	1 411	912 000	15	0	56	0	0
1973	1 241	377	0	995	699 000	28	0	99	0	0
1974	885	333	0	1 499	1 324 000	38	0	90	0	0
1975	469	300	0	1 307	942 000	33	0	29	0	0
1976	1 055	831	0	1 009	709 000	0	0	30	0	0
1977	1 236	963	0	1 085	631 000	48	0	30	0	0
1978	1 178	113	0	889	494 000	176	0	52	0	0
1979	1 108	111	0	1 181	524 000	310	0	314	0	0
1980	1 296	17	0	955	473 000	190	1 296	424	0	0
1981	922	295	56	1 195	579 000	10	1 042	564	0	0
1982	800	71	0	1 228	735 000	54	990	235	0	0
1983	1 116	102	0	792	566 000	184	1 052	804	0	0
1984	1 136	0	3	562	325 000	877	0	397	0	0
1985	1 190	16	0	973	452 000	311	0	554	0	0
1986	953	0	0	742	346 000	358	0	114	0	0
1987	1 446	0	0	1 304	686 000	302	0	874	14	0
1988	966	6	0	930	563 000	435	0	467	24	0
1989	889	0	0	1 252	755 000	165	0	473	43	0
1990	1 068	0	0	1 122	707 000	80	0	140	0	0
1991	1 297	0	0	784	439 000	77	0	608	0	0
1992	976	1	19	1 346	757 000	113	0	300	0	0
1993	887	10	36	1 221	683 000	153	0	161	0	0
1994	856	39	80	967	674 000	57	0	266	137	0
1995	923	15	20	1 665	1 040 000	292	0	226	39	0
1996	1 071	51	28	1 772	1 140 000	61	188	249	20	0
1997	1 000	8	14	1 512	1 067 000	88	0	163	111	0
1998	631	14	2	719	675 550	5	0	165	40	0
1999	650	39	3	466	382 881	26	764	303	117	0
2000	1 110	8	6	993	858 364	46	953	256	233	0
2001	1 172	4	0	1 348	1 248 436	91	1 363	116	66	0
TOTAL	**40 235**	**10 754**	**304**	**43 390**	**29 145 231**	**5 131**	**7 648**	**9 512**	**844**	**0**

APPENDIX XXI

WATERSHED RESTORATION HISTORICAL SUMMARY

Year	TFL 6			TFL 19			TFL 25			Other Tenures		
	Road Deactivation (km)	In-Stream Restoration (km)	Terrestrial Restoration (ha)	Road Deactivation (km)	In-Stream Restoration (km)	Terrestrial Restoration (ha)	Road Deactivation (km)	In-Stream Restoration (km)	Terrestrial Restoration (ha)	Road Deactivation (km)	In-Stream Restoration (km)	Terrestrial Restoration (ha)
2001	55	1.9	67	29	4.9	0	13.7	0.4	0	18	4	0
2000	24	2	0	15	2.4	0	13	0	13	88	12	19
1999	48	3	40	48	1.6	13	15	2	11			
1998	40	8	7	36			63		1			
1997				22			34					
1996												
1995												
1994												
TOTAL	**167**	**14.9**	**114**	**150**	**8.9**	**13**	**138.7**	**2.4**	**25**	**106**	**16**	**19**

APPENDIX XXII

TREE FARM LICENCE 19

LOGGING AND ENGINEERING SUMMARY

Program	Project		Gold River	Nootka Contract Administration	Zeballos	TOTAL
Denudation	Total Company	ha	587.1	410.8	169.1	1167.0
	Crown / Licence	ha	0	0	0	0
	Crown Grant (MF)	ha	0	4.7	0	4.7
	SBFEP	ha	0	0	0	0
	TOTAL	ha	587.1	415.5	169.1	1171.7
Accidental Fires		No.	1	0	0	1
		ha	.04	0	0	.04
Residue Assessment Plots		#	123	199	36	358
CP Cruising Plots		#	670	653	86	1409
Roads	Constructed	km	50.7	39.4	11.0	101.1
	Rebuilt	km	41.6	24.6	3.1	69.3
	Maintained	km	292.1	268.0	47.0	607.1
	Deactivated					
	Temporary	km	31.2	60.0	4.2	95.4
	Semi-Permanent	km	23.9	0	2.5	26.4
	Permanent	km	3.5	13.5	0	17.0
					0	
Roadside Treatments	Brushing	km	67.8	8.5	0	76.3
	Herbicide	km	0	0	0	0
	Seeding	km	00	0	0	0
Site Stabilization		ha	0.1	0	0	0.1
Permanent Access (Site Degradation)		%	4.1	6.2	0	5.2
Riparian Management Area		ha	126.5	79.8	11.7	218.0

APPENDIX XXIII

TREE FARM LICENCE 19

DIRECT EMPLOYMENT STATISTICS - 2001

Operation	Home Region	Contractor Personnel		Company Personnel		Total Personnel	
		People	Person Days	People	Person Days	People	Person Days
Planning And Development							
Gold River Forestry	Gold River	20	1464	19	3534	39	4998
	Tahsis	2	9	0	0	2	9
	Campbell River	11	487	2	308	13	795
	Courtenay	3	37	7	1078	10	1115
	Vancouver Island (Other)	13	247	0	0	13	247
	Lower Mainland	15	179	0	0	15	179
	BC (Other)	2	12	0	0	2	12
Nootka Contract Administration	Gold River	8	1166	7	925	15	2091
	Tahsis	5	664	0	0	5	664
	Campbell River	16	2239	1	69	17	2308
	Courtenay	8	1278	0	0	8	1278
	Vancouver Island (Other)	4	40	0	0	4	40
	Lower Mainland	4	114	0	0	4	114
	BC (Other)	1	160	0	0	1	160
Zeballos	Zeballos	4	452	10	997	14	1449
	Gold River	3	192	1	182	4	374
	Campbell River	0	0	1	120	1	120
	Vancouver Island (Other)	5	61	3	232	8	293
	Lower Mainland	1	1	0	0	1	1
	BC (Other)	1	4	0	0	1	4
Head Office	Lower Mainland	0	0	1	72	1	72
Subtotal		**126**	**8806**	**52**	**7517**	**178**	**16323**
Harvesting							
Gold River Forestry	Gold River	4	551	85	13698	89	14249
	Tahsis	0	0	1	154	1	154
	Campbell River	7	533	16	2464	23	2997
	Courtenay	0	0	23	3694	23	3694
	Vancouver Island (Other)	0	0	8	1232	8	1232
Nootka Contract Administration	Gold River	23	4771	7	863	30	5634
	Tahsis	15	2890	0	0	15	2890
	Campbell River	7	1250	1	148	8	1398
	Courtenay	22	3670	0	0	22	3670
	Vancouver Island (Other	13	3120	0	0	13	3120
	Lower Mainland	12	1180	0	0	12	1180
Zeballos	Zeballos	0	0	27	3328	27	3328
	Gold River	3	321	0	0	3	321
	Tahsis	2	261	0	0	2	261
	Campbell River	3	17	9	976	12	993

Operation	Home Region	Contractor Personnel		Company Personnel		Total Personnel	
		People	Person Days	People	Person Days	People	Person Days
	Courtenay	0	0	11	1227	11	1227
	Vancouver Island (Other)	5	249	6	799	11	1048
Subtotal		**116**	**18813**	**194**	**28583**	**310**	**47396**
Silviculture and Integrated Resource Management							
Gold River Forestry	Gold River	15	1205	20	836	35	2041
	Campbell River	7	143	0	0	7	143
	Courtenay	2	110	0	0	2	110
	Vancouver Island (Other)	38	1143	0	0	38	1143
	Lower Mainland	7	99	0	0	7	99
	BC (Other)	5	150	3	240	8	390
Nootka Contract Administration	Gold River	1	19	2	151	3	170
	Campbell River	3	68	2	159	5	227
	Courtenay	2	49	0	0	2	49
	Vancouver Island (Other)	12	351	0	0	12	351
	Lower Mainland	3	86	1	50	4	136
	BC (Other)	7	247	1	50	8	297
Zeballos	Zeballos	16	343	2	238	18	581
	Gold River	3	15	0	0	3	15
	Campbell River	3	20	0	0	3	20
	Vancouver Island (Other)	15	249	1	156	16	405
Saanich	Vancouver Island (Other)	0	0	57	1456	57	1456
Head Office	Lower Mainland	47	458	4	290	51	748
Subtotal		**186**	**4755**	**93**	**3626**	**279**	**8381**
Transportation							
Head Office	Lower Mainland	45	7878	3	217	48	8095
Subtotal		**45**	**7878**	**3**	**217**	**48**	**8095**
Processing							
Cowichan Sawmill	Vancouver Island (Other)			99	1480	99	1480
Log Merchandizer	Vancouver Island (Other)			26	586	26	586
Nanaimo Sawmill	Vancouver Island (Other)			160	11439	160	11439
Port Alice Sawmill	Vancouver Island (Other)			445	36145	445	36145
Saltair Sawmill	Vancouver Island (Other)			128	7797	128	7797
Silvertree Sawmill	Lower Mainland			138	4002	138	4002
Squamish Pulp Mill	Lower Mainland			331	6437	331	6437
Tahsis Sawmill	Tahsis			195	7935	195	7935
Trades and Sales	Lower Mainland			36	2077	36	2077
Subtotal				**1558**	**77898**	**1558**	**77898**
Administration							
Nootka Region	Gold River	1	260	2	336	3	596

Operation	Home Region	Contractor Personnel		Company Personnel		Total Personnel	
		People	Person Days	People	Person Days	People	Person Days
	Zeballos	0	0	2	315	2	315
	Campbell River	0	0	1	161	1	161
	Courtenay	0	0	1	161	1	161
	Vancouver Island (Other)	0	0	1	161	1	161
Head Office	Vancouver Island (Other)	0	0	32	1543	32	1543
	Lower Mainland	3	194	29	2100	32	2294
Western Pulp Administration	Lower Mainland	0	0	18	868	18	868
Subtotal		**4**	**454**	**86**	**5645**	**90**	**6099**
Summary by Home Region							
	Gold River	81	9964	143	20525	224	30489
	Tahsis	24	3824	58	1610	82	5434
	Zeballos	20	795	41	4878	61	5673
	Campbell River	57	4757	33	4405	90	9162
	Courtenay	37	5144	42	6160	79	11304
	Vancouver Island (Other)	105	5460	1104	69506	1468	74966
	Lower Mainland	137	10189	561	16113	775	26302
	BC (Other)	16	573	4	290	20	863
TOTAL		**477**	**40706**	**1986**	**123487**	**2799**	**164193**

APPENDIX XXIV

DIRECT EMPLOYMENT STATISTICS

Western Forest – Western Pulp – Doman Industries – Doman Western Lumber

Person-days

	Planning and Development	Harvesting	Transportation	Processing	Silviculture and Integrated Resource Management	Administration	TOTAL
TFL 6	10514	56015	9874	76559	12708	5661	171331
TFL 19	16323	47396	8095	77898	8381	6099	164192
TFL 25	8427	23174	6742	22778	8856	1953	71930
FL A19231 Strathcona	4736	12208	2629	13359	1496	1552	35980
FL A19240 Kingcome	894	5635	201	3678	1549	395	12352
FL A16845 MidCoast	2202	5465	386	4562	527	440	13582
FL A16847 MidCoast	4221	12431	1055	15179	2227	1072	36185
FL A19205 Fraser	346	3360	324	2789	932	238	7989
FL A19228 Sunshine	222	2340	200	1553	378	126	4819
FL A19216 Soo	333	3400	296	2787	654	217	7687
Other WFP Tenures	56	222	38	364	537	67	1284
Nootka Sound Economic Development Corporation	0	0	0	0	0	0	0
Non-WFP Tenures	0	0	0	111480	0	3611	115091
TOTAL	**48274**	**171646**	**29840**	**332986**	**38245**	**21431**	**642422**

APPENDIX XXV

FIRST NATIONS SILVICULTURE CONTRACTS EMPLOYMENT SUMMARY

	North Vancouver Island Region	Mainland Islands Region	Nootka Region	TOTAL
TFL 6	973			973
TFL 19			1,422	1,422
TFL 25	34	1,225		1,007
FL A19231 Strathcona			149	149
FL A19240 Kingcome				
FL A16845 MidCoast		21		21
FL A16847 MidCoast		144		144
FL A19205 Fraser				
FL A19228 Sunshine		43		43
FL A19216 Soo				
Other WFP Tenures				
Nootka Sound Economic Development Corporation				
Non-WFP Tenures				
TOTAL	**1,007**	**1,433**	**1,571**	**4,011**
Total Contractor Days	**7,639**	**7,104**	**5,266**	**20,009**
% FN Employment	**13.2**	**20.2**	**29.8**	**20.0**
% WFP Goal	**66.0**	**101**	**149**	**100**

APPENDIX XXVI

SUMMARY OF ISSUES – MANAGEMENT PLAN 9

Issue	Task	Status
Assess accuracy of operability categories	Report annually area harvested by harvest method within each operability category, sorted by leading species and by height class.	Reported in TFL Annual Report.
Operability	Confirm operability in the Upper Leiner and Burman Rivers.	Will be completed during term of Management Plan 9.
Inventory	Complete the Terrestrial Ecosystem Mapping (TEM).	TEM mapping completed in 2001.
Operability, harvesting steep slopes	Report annually the amount of area harvested from each of terrain stability class IV and V areas, as delineated in mapping used for base case analysis.	Reported in TFL Annual Report.
Salvage harvesting	Track the incidence of and amount of salvage related to landslides, windthrow, insect outbreaks and fire.	Salvage harvesting reported in TFL Annual Report.
Site Productivity	Strengthen the basis for site index assumptions.	Completion of TEM and VRI will improve site index assumptions.
Harvesting Practices	Document harvesting practices in riparian management zones. Document site productivity losses to roads, trails and landings.	To be completed during term of MP9. Losses due to permanent access structures to be reported in Annual Report.

APPENDIX XXVII

TREE FARM LICENCE 19

VULNERABLE, THREATENED, AND ENDANGERED SPECIES, AND MEASURES TO CONSERVE

Species	Status			Measures
	COSEWIC	CDC		
CommonWater Shrew(*S. palustris brooksi*)		S2	✦	The genetics of the brooksi variant on Vancouver Island are not well known but occurrence records suggest it is widely distributed. The species is thought to be riparian associated and therefore current riparian retention practices should significantly address core habitat needs.
Keen's Long-eared Myotis	S	S1S3	▲	Roosting sites include caves and tree cavities and crevices. OGMAs, WTPs, stand level retention, and riparian restoration strategies should ensure that suitable tree roosts are maintained. In TFL 19 the first Wildlife Habitat Area designation for this bat was made to protect a known roosting cave and surrounding forest.
Ermine(haidarum subspp)		S3	✦	The Vancouver Island variant of the ermine is little studied but elsewhere diets are variable and adaptable and early successional stages, which ongoing forest harvesting will maintain at approximately current levels, are thought important. No specific management actions are being undertaken.
Vancouver Island Wolverine		S1	▲	This Vancouver Island variant of the wolverine, a highly mobile animal with a large home range, has not been sighted for many years and may be extinct. No specific management measures have been undertaken and none are contemplated unless a den sighting is confirmed.
Roosevelt Elk		S2S3	▲	Roosevelt elk populations are considered healthy. Harvesting plans will incorporate strategies to ensure that important wintering and calving habitats are provided. Modeling algorithms have been developed to predict suitable habitats from forest inventory and timber supply predictions.
Marbled Murrelet	T	S2	✦	OGMAs are expected to incorporate considerable areas of suitable nesting habitat. The Company continues to support research efforts directed at better defining the terrestrial nesting needs and adaptability of this largely pelagic species, and has developed predictive algorithms for identifying potential habitat from GIS data.
Northern (Queen Charlotte)Goshawk	T	S2	▲	Little is known of the genetics of this coastal variant of the more ubiquitous northern goshawk found throughout much of North America and in Eurasia. To date the Company has assisted survey crews and some nests have been located. It is assumed that OGMAs and forest management that retains a significant component of maturing forest will provide sufficient core habitat for the long term survival of this species. WHAs may be established according to WALP guidelines. Research into the genetic linkages among coastal subpopulations and mainland goshawks is needed.
Great Blue Heron	S	S3	✦	Although feeding birds are commonly sighted, no heronries are known within WFP tenures. Unless the usually obvious nesting sites are located, no special management practices are anticipated.
Green Heron		S3S4	✦	Nests tend to be singular in trees and associated with water and therefore are expected to be within reserved zones. No special management practices are implemented.
Peregrine falcon *pealei*	S	S3	✦	Nest sites are typically in steep, rocky areas where timber productivity and operability is very low; hence no special management is thought necessary to protect potential nest habitat. Known nest locations are kept confidential to prevent disturbance.
Western Screech Owl *kennicottii saturatus*		S3	✧	A small cavity nester assumed similar in habit to its widely distributed continental cousin. OGMAs, WTP and stand-level retention strategies should supply nesting habitats for this owl.
Northern Pygmy Owl *swarthy*		S3	▲	The Vancouver Island race of this small western North American owl is a cavity nester and thought associated with forest edge like the continental races which occupy a variety of semi-open to open habitat types. Riparian and stand-level retention strategies should provide ample nesting opportunities.
Band-tailed Pigeon		S3S4	✦	Generally this neo-tropical migrant is not thought adversely affected by forest management in B.C. where a greater proportion of earlier seral stages may provide additional foraging and nesting habitat.
Dolly Varden		S3S4	✦	This char is common to many waterways within our tenures. No specific management interventions are directed at this species, although the aforementioned measures should ensure the survival local races that may be present.
Coastal Cutthroat Trout		S3S4	✦	As per salmon and steelhead with special attention to the smallest streams.
NorthernRed-legged Frog	S	S3S4	✦	Although this frog may forage away from riparian areas, it is strongly associated with breeding ponds. It may be sensitive to water temperature but current riparian management practices should provide effective protection for breeding sites.
Small Bedstraw		S1S3	▲	Thought to be a riparian species occurring in open environments. Normal riparian management practices should provide protection.

Status
S special concern (COSEWIC) or vulnerable
S1 critically imperiled (CDC)
S2 imperiled (CDC)
S3 vulnerable (CDC)
S4 uncommon but not rare (CDC)
T threatened (COSEWIC)

Presence
▲ sighted: CDC recorded collection or expert sighting
✦ likely: within published range or anecdotal and unofficial sightings
✧ possible: no sightings but suitable habitat and proximity to known range

APPENDIX XXVIII

Doman Industries Limited
Doman Forest Products Limited
Western Pulp Inc.
Western Forest Products Limited
Doman – Western Lumber Ltd.

Corporate Operating Statistics - 2001

Productive Forest Land Managed		1,050,000 hectares (ha)
Operable Forest Land		565,000 ha
Forest Tenures		3 Tree Farm Licences 7 Forest Licences 5 Managed Forests 144 Timber Licences
Logging Operations		30
Employees & Contractors		4,200 people (est.)
Timber Harvest/Year (AAC)		4,100,000 m^3
Timber Purchase/Year		1,600,000 m^3
Mills		2 Pulpmills - 1 Kraft, 1 Sulphite 9 Sawmills 1 Value Added Plant (80 million bd. ft.) 1 Log Merchandiser
Products:	Lumber and Solid Wood	1.2 billion board feet
	Pulp	420,000 tonnes
Annual Product Sales		$900 million
Roads Constructed /Year		350 kilometres
Roads Maintained/Year		3,500 km
Area Logged/Year		4,500 ha
Area Planted/Year		4,400 ha
Area Natural Regen/Year		100 ha
Number of Seedlings Planted/Year		4,500,000 trees
Avg. survival of 3 yr. old plantations		>90%
Area Brushing & Weeding/Year		2,400 ha
Area Juvenile Spacing/Year		700 ha
Area Pruning/Year		500 ha
Area Fertilized/Year		2,500 ha
Visitors to Forest Lands/Year		over 300,000 visitors
Salmon Production/Year (4 hatcheries)		1,500,000 fry released
Recreation Sites and Trails		45
Forest Enhancement persondays		over 40,000