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May 11, 2001

Ministry of Forests
Forestry Division
4th Floor, 595 Pandora Avenue
Victoria, B. C.
V8W 3E7

Attention: L. Pedersen, Chief Forester

Dear Larry Pedersen,

Re: TFL 46 - 2000 Annual Report

Enclosed please find the 2000 Annual Report for TFL 46 prepared under the new format.

Yours truly,

G. M. Brennenstuhl, R.P.F.

c.c. D. Mosher, S. Lorimer, TimberWest, South Island
G. Martin, T. Jones, TimberWest, Honeymoon Bay Operation
R. Willington, TimberWest, IRAS - Crofton
C. Stern, District Manager, South Island Forest District, Port Alberni
K. Collingwood, Regional Manager, Vancouver Forest Region, Nanaimo



TFL Forest Ltd.
Tree Farm Licence (TFL) 46
2000 Annual Report

May 2001

Prepared by:

A handwritten signature in black ink, appearing to read "Gilbert Brennenstuhl".

Gilbert Brennenstuhl, R.P.F.
GMB Forestry Consulting Ltd.

Submitted by:

A handwritten signature in black ink, appearing to read "Don McMullan".

Don McMullan, R.P.F.
Vice President and Chief Forester

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1.0 Introduction

Tree Farm Licence 46 is located on Southern Vancouver Island between Port Renfrew, Sooke and Lake Cowichan. It covers an area of about 90,000 ha.

The current Management Plan No. 3 is in effect until November 30, 2001. Management Plan No. 4 is currently being prepared.

The Allowable Annual Cut (AAC) is 462,544 m³.

2.0 Management and Obligation Performance

2.1 Timber Harvesting

Calendar 2000 is the third year in the current cut control period. The total cut control charges were 507,926 m³ or 109.8 % of the AAC. After three years the licence is at 51.8 % of the periodic cut (5 year cut).

Year	1998	1999	2000	3 Year Total
AAC	514,804	462,544	462,544	1,439,892
Total Actual Cut	355,236	362,940	507,926	1,226,102
Percent (%) of Allowable Cut	69.0	78.5	109.8	51.8

Note: The indicated AAC is subject to change in the next AAC determination by the Chief Forester scheduled for 2001.

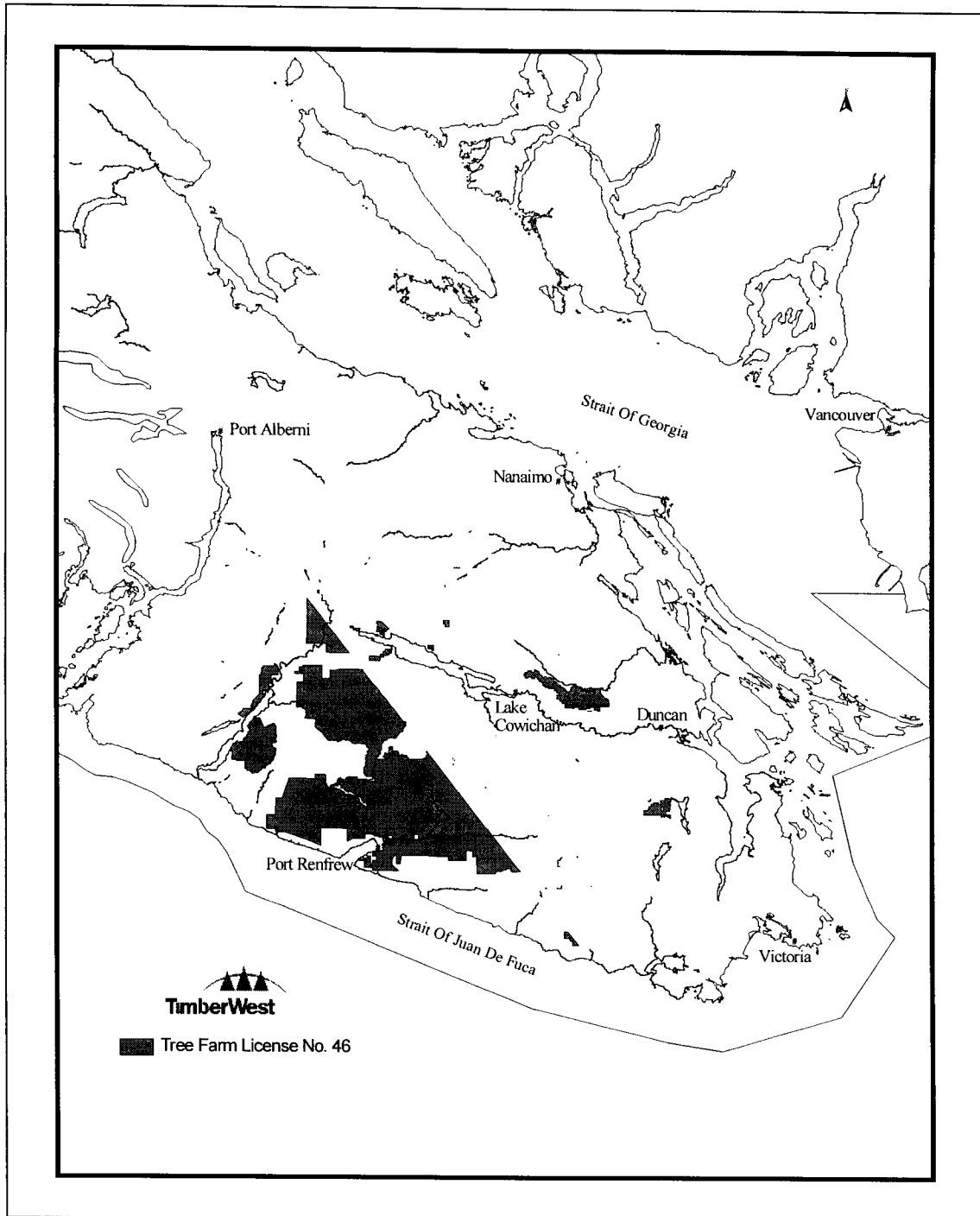
2.2 Contractor Clause Compliance

The current licence agreement for TFL 46 has no contractor clause.

2.3 Higher Level Plans

A higher level plan (HLP) has been established with an effective date of December 1, 2000 for areas covered by the Vancouver Island Land Use Plan. The HLP consists of Resource Management Zones (RMZ) and RMZ objectives. Two such RMZ are partially within TFL 46: Special Resource Management Zone (SMZ) 21 (Walbran) and SMZ 22 (San Juan Marine Ridge Trail). TimberWest's current forest development plan is deemed to follow the spirit of the HLP but has not been specifically checked for compliance. The next FDP will be in full compliance with the HLP.

Key Map



2.4 Items Identified in the Approval Letter of TFL 46 Management Plan No. 3 and AAC F nale

1. In his AAC Rationale for TFL 46 the Chief Forester requested that TimberWest carefully re-evaluate the operational adjustment factors (OAF) used in the timber supply analysis for MP No. 3 prior to the next timber supply analysis.

Status:

TimberWest adopted the MoF operational adjustment factors for use in the timber supply analysis for the next management plan which is currently being prepared.

2. The Chief Forester expects the licensee to continue to harvest in deciduous stands as appropriate in view of the fact that the forest inventory includes some 1,500 ha of deciduous leading stands.

Status:

The average deciduous production is about 1,000 m³ per annum. This deciduous harvest is incidental to the harvest of conifer stands. Significant portions of the alder stands are located in Forest Ecosystem Networks (FEN) or in reserve zones adjacent to fish creeks and unavailable for harvest.

3. In his approval of Management Plan No. 3 the Chief Forester stipulated that the licensee prepare a report which tracks whether wildlife trees and patches are left for stand or landscape level biodiversity in order to more clearly identify this constraint to timber supply.

Status:

TimberWest, in consultation with the South Island Forest District, has developed such a tracking system and has reported the findings to the Ministry.

4. Investigate the impacts of various opportunities on timber supply (shifts in harvest scheduling, alternative biodiversity assumptions, varied cutblock configuration and alternative silviculture systems)

Status:

TimberWest has initiated a major shift from old growth harvesting to currently more than 50% of the harvest coming from second growth stands. This shift together with an increase in mechanization of harvesting methods has allowed Honeymoon Bay operation to exceed their allowable annual cut under very difficult economic conditions.

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2.5 Inventory Updates

- Recreation inventory and visual landscape inventory (VLI) were updated in 1999 and submitted to the Ministry of Forests for approval in 2000. The RM approved the VLI Dec 16, 2000. Approval of the recreation inventory is pending.
- Detailed Terrain Stability mapping has been completed for the entire TFL ✓ under an FRBC funded program.
- An Archaeological Overview Assessment has been initiated for the area of TFL 46 that contains the Ditidaht Traditional Territory and is expected to be completed in 2001.

3.0 Success in Meeting Management Objectives

3.1 Management and Utilization of the Timber Resource:

- **Partitions (geographic area, timber type, terrain)**
TFL 46 does not have a partitioned cut.
- **Integration with SBFEP**
To date, reductions in the allowable cut have been accommodated through area reductions. Since both parties work on separate and distinct land bases there is no need to formally integrate TW's and SBFEP's operations – other than to coordinate road use.
- **Deciduous volume harvested**
TimberWest is committed to harvesting deciduous species as a component of the coniferous harvest in mixed stands and in lead species deciduous stands when market opportunities exist. The deciduous harvest was less than 1,000 m³ in 2000. Three settings of mostly deciduous species are laid out and have approved silviculture prescriptions (SP). They will be scheduled for harvest when economics permit.

3.2 Forest Health

- **Forest health conditions**
No significant pest conditions occurred in 2000.
- **Other forest health/pest management related information**
Honeymoon Bay operation has been experimenting with windproofing stand edges and individual trees. In addition to methods such as boundary design and feathering they have experimented with three aerial and one manual crown treatment systems. In 2000 on both TFL 46 and Managed Forest No. 68, 25 km or 30 % of the timber edges exposed through

harvesting were treated by crown modification. Field reviews of past treatments indicates a high success rate of preventing blowdown.

3.3 Silviculture

TimberWest endeavours to achieve excellence in basic forestry practices through rapid reforestation with a suitable number of seedlings of the appropriate species of the best genetic stock available. Developing stands are monitored and brushing is carried out as required to ensure stands attain free growing status as soon as is practical. We are proud to say that we achieve this goal. Harvested areas are restocked within 2 years, 80% of our seedlings are of genetically improved stock, and our brushing and weeding (B&W) program is small and up-to-date.

TimberWest completed 316 ha of aerial fertilization and 105 ha of juvenile spacing under an FRBC funded program.

3.4 Variable Retention Forest Management

On May 10, 1999, TimberWest announced that it would replace clearcutting with Variable Retention harvesting over a four year period on both its private lands and public tenures. VR harvesting was expected to better deliver sound forest stewardship, support sustainable forest management and better balance the needs of neighbours, the owners of TimberWest and society. During the first 18 months of the implementation period TimberWest focused much of its efforts on its private lands.

TimberWest also recognizes that knowledge about how best to apply VR principles and the results of such application is limited and that adaptive management is needed to achieve the desired objectives over time. TimberWest will continue to refine how it applies VR based upon experience and the input of information from external sources. At the same time, the company continues to explore alternative approaches for methods that meet its land management objectives.

4.0 Timber processing

- Timber Flow

The net log production excluding waste was 476,377 m³ and was distributed as follows:

➤ Youbou Lumber Mill	203,061 m ³
➤ Elk Falls Lumber Mill	2,527 m ³
➤ Norske pulp	37,288 m ³
➤ Other sales/trades	233,501 m ³

Note: Youbou Lumber Mill's usage was supplemented from other tenures and private lands and totaled 452,898 m³.

Timber Processing

Primary Breakdown Facility		Primary Products		Markets
Youbou Lumber Mill 452,898 m ³	5%	Higrade lumber	To	Domestic
	31%	Structural Merch lumber	To	40% Belgium/Australia 40% Japan, 20% dom.
	11%	Utility/economy low grade	To	Domestic
	36%	Chips	To	Pulp mill
	21%	Hog fuel		

- TFL harvest volume by district

TFL 46 is entirely within the SIFD. The total scale (excluding waste) was 476,377 m³.

- Volume of timber offered for sale within the forest region

Essentially all wood from the TFL less any consumption by our own saw mills is offered for sale in the Vancouver Forest Region to veneer plants, shingle mills, saw mills, pulp mills, paper mills and pole producers. This amounts to 270,789 m³. A small volume of that wood was offered for sale in the interior of the province.

5.0 Employment and Economic Opportunities

There is no approved Job Creation Plan (JCP) in effect for TFL 46. Numerous FRBC funded projects provide employment for local people, First Nations and various other parties. Over the last few years Honeymoon Bay Operation has successfully employed a silviculture crew drawn from local First Nations varying in size from six to twelve people. Labour issues brought about by technological change and eroding cut levels will significantly impact this initiative in the years ahead. Many of the activities managed under the San Juan Agreements were

fisheries enhancement works that occurred within TFL 46 and these projects also employ First Nations crews.

6.0 Knowledge Gaps

As noted above, the company's own experience and on-going input from various parties are contributing to improved application of Variable Retention.

APPENDIX I

TFL 46 BEFORE FIRST ENTRY AGE HARVEST

For the purpose of this report "Before First Entry Age" is defined as any stand harvested prior to the early entry age listed in Table 32 of the Timber Supply Analysis Information Package of Management Plan No. 3 for TFL 46.

This appendix lists the actual stand parameters as determined in a cutting permit cruise or stand assessment.

TFL, Block	Cutblock	Area Harvested (ha)	Mean Stand Vol/ha	Mean Stand DBH	Site Index (Base 50)	Stand Age
TFL 46, Blk 1	2013	1.2	853	31.9	15	70
TFL 46, Blk 1	2090	11.7	633	27.3	30	61
TFL 46, Blk 1	2307	12.9	529	38.8	30	48
TFL 46, Blk 1	2309	16.5	477	32.7	35	45
TFL 46, Blk 1	2309	5.4	676	43.5	30	45
TFL 46, Blk 2	3-5-C	17.7	585	29.8	25	58
TFL 46, Blk 2	3-5-D	2.2	373	30.2	32	57
TFL 46, Blk 3	30-1-F	4.2	366	38.3	35	48
TFL 46, Blk 3	30-1-F	7.6	494	36.0	35	48
TFL 46, Blk 6	30-4-B	1.1	310	25.0	25	57
TFL 46, Blk 6	30-4-B	5.2	608	25.4	30	57
Total		85.7				

Appendix II

TFL 46 – Harvest from Lower Site Classes

Areas harvested during 2000 from lower site classes are summarized in the table below.

Lower site classes are defined as site indices less than 15 meters at breast height age 50 years. The site index, harvest age, timber type and volume estimates are from TFL 46's timber inventory. Areas are mapped areas at 1:20,000.

TFL 46 – Harvest from Lower Site Classes

Setting	Forest Type	Harvest Age	Site Index	Area Harvested (ha)	Yield Curve	Culmination Age	M3/ha. @ Harv. Age ¹	Avg. DBH @ Harv. Age
307	YH	280	14	7.3	460515	110	280	30
Total				7.3				

¹ Volume is taken from the old-growth average volume line (AVL).

Appendix III

TFL 46 – Harvest from Lower Age Classes

Areas harvested from lower age classes in 2000 are summarized in the table below.

Stands harvested at lower ages are defined as stands harvested prior to their biological culmination age. Harvest ages, site index, timber types and volumes are estimated from TFL 46's timber inventory. Areas are mapped hectares at 1:20,000.

TFL 46 – Harvest from Lower Age Classes

Setting	Forest Type	Harvest Age	Site Index	Area Harvested (ha)	Yield Curve	Culmination Age	M3/ha. @ Harv. Age	Avg. DBH @ Harv. Age
2016	HC	56	30	2.50	460830	61	572	30
2017	HF	66	25	1.08	460725	73	517	29
2083	FH	66	25	1.59	460325	71	452	27
2083	HC	66	25	1.59	460825	74	466	30
2090	BH	66	24	1.51	460825	74	466	30
2090	FH	66	25	8.30	460325	71	452	27
2307	FH	46	30	7.63	460330	66	394	24
2307	FH	51	35	7.95	460335	61	584	29
2309	F(HB)	51	30	3.57	460130	71	373	26
2309	FH	51	35	3.92	460335	61	584	29
2309	FH	51	30	13.41	460330	66	454	26
30-1-F	FH	51	30	5.70	460330	66	454	26
30-1-F	HF	51	35	1.19	460735	54	650	32
30-1-F	HF	48	25	4.65	460725	73	344	24
30-3-C	F	62	30	1.75	460130	71	476	29
30-3-C	FH	59	30	1.43	460330	66	540	28
30-3-C	FH	54	30	2.16	460330	66	487	27
30-4-B	FH	46	25	1.13	460325	71	278	22
30-4-B	FH	56	30	1.50	460330	66	509	27
30-4-B	FH	56	25	2.37	460325	71	372	24
30-4-B	HF	46	25	2.04	460725	73	322	24
30-4-B	HF	56	25	3.18	460725	73	426	27
3-5-D	FH	37	30	4.79	460330	66	272	22
3-5-D	FH	58	30	10.31	460330	66	530	28
3-5-D	FH(B)	51	30	1.41	460330	66	454	26
3-5-D	FH(C)	58	30	13.84	460330	66	530	28
3-5-D	HF(B)	61	30	4.84	460730	63	624	32
Total				115.34				