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Report to the Utilities Services Committee
From Barry Leonard, Manager Plantation Forestry

Plantation Forestry Annual Report and Proposals

1. Purpose

This report:

- appraises Councillors of the results of Plantation Forestry activities in the year ended 30 June 2000.
- comments on budgeted activities for the financial year ended 30 June 2001.
- outlines proposed activities for the year ended 30 June 2002.

2. Exclusion of the Public

Grounds for exclusion of the public under section 48(1) of the Local Government Office Information and Meetings Act 1987:

That the public conduct of the whole or relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist, i.e.; to allow the carrying out of, without prejudice or disadvantage, commercial activities.

3. Background

From time to time issues arise over activities within the Plantation Forestry Department which, although they have been approved through the Annual Plan, may cover a different years budgeted activity depending on the stage of the forestry cycle (i.e. harvesting and replanting may occur in different financial years).

To overcome this problem it was decided that in October of each year a paper is provided summarising the activities of the financial year just completed, and the proposed activity for the succeeding year to enable preparation of budgets to begin.

As this is the first occasion the report has been presented, an outline of the current years' activities are also included.

4. Review of Operations Year Ended 30 June 2000

4.1 Harvesting

During the year harvesting at Whakatikei was completed and the results of this harvest were reported to Council in Report 00.318. The table from that report is repeated within this report.

Once harvesting at Whakatikei was completed, operations moved to the area above Ladle Bend in Pakuratahi East. To 30 June 2000, sixty three thousand seven hundred and twenty four cubic metres of logs were felled.

The table below sets out the gross income at wharf or mill gate for the logs and the net income to Council.

Logging Income : Rayonier Contract 1999/2000

	Mill/Port Price \$	Cartage \$	Harvest Ground \$	Harvest Hauler \$	M'ment CFH \$	Comm Rayonier \$	Other \$	Net Return \$	M ³	Average \$	
July	313,754	51,155	81,568		7,703	15,510	10,851	146,968	4,823	30.48	
August	424,055	85,837	111,839		10,523	21,203	14,838	179,814	6,595	24.40	
September	344,516	71,988	96,347		9,000	17,255	11,085	138,841	3,020	21.21	
October	282,056	57,175	85,713	25,791	8,822	14,103	8,369	82,083	5,272	12.32	
November	427,857	66,330	131,234	23,200	11,566	21,199	6,167	168,161	7,169	18.08	
December	391,749	59,483	116,861	10,696	8,875	18,987	4,259	172,587	5,994	25.23	
January	269,941	37,885	106,911	1,355	6,195	12,569	1,497	103,529	4,551	21.54	
			Add January Adjustment					9,125			
February	393,168	47,526	128,036	0	7,785	19,338	0	190,484	5,901	32.28	
March	371,346	46,118	125,446	0	7,698	18,468	0	173,616	5,987	19.26	
April	206,424	26,236	73,727	0	4,151	9,587	0	92,721	3,197	20.97	
May	264,609	28,622	77,761	7,509	5,313	13,276	0	132,126	4,060	28.60	
June	465,478	49,725	119,125	35,951	9,422	23,218	0	228,037	7,156	29.47	
Adjust	9,821			877				8,944		30.72	
Total	4,164,773	628,081	1,254,568	105,380	97,052	204,713	57,066	1,835,982	63,724	23.92	

4.2 Analysis of Harvest Outcomes

In order to estimate the volume of logs by grade within a forest stand an analysis process known as MARVL (Method of Assessment of Recoverable Volume by Log type) is carried out.

In the process each standing tree within the plot is visually assessed and expressed in terms of the likely output by log grade if the tree was felled. This requires consideration of height, sweep, branching, branch size, spikes, knot clusters, and diameter. This process is based on observations of one percent of the trees in a stand and can be "grown on" by other computer programmes. The results, as well as being dependent on the quality or accuracy of the observation, relies on the technician

increasing the level of observation where there is a significant variation in quality within the stand.

In the normal course of events variations of $\pm 15\%$ would not be considered unusual.

Results Achieved Versus Results Predicted By MARVL

Whakatikei

Stand Assessed	Area	M3/ha	Pruned	Grades				Totals
				S	K	L	Pulp	
2/01	65	415	135	20	12	130	119	
3/01	2.5	515	166	47	39	175	88	
4/01	6.7	651	13	163	280	0	195	
4/02	4.5	615	0	130	0	149	336	
Total	78.7	450	9,277	3,095	2,754	9,558	10,774	35,457
Actual	78.7	508	6,967	4,778	12,699	4,173	11,384	40,001
Variation	0.00%		-24.90%	54.40%	361.19%	-56.34%	5.67%	12.82%

Pakuratahi (Completed Stands Only)

Stand No.	Area	Grades							Total
		Pruned	S	L	K	R	Pulp	R'wood	
2205	3.3	271		911	170	152	186		1690
Actual		178	851	753	606	300	725	9	3422
Variation		-34.32%		76.07%	256.47%	97.37%	289.78%		102.49%
2204	4.7	582		1248	333	250	361	0	2774
Actual		180	470	574	269	114	359	0	1966
Variation		-69.07%		-16.35%	-19.22%	-54.40%	-0.55%		-29.13%
2501	6.7	0		2230	346	654	615	0	3845
Actual		150	2090	1116	907	652	1484	14	6413
Variation				43.77%	162.14%	-0.31%	141.30%		66.79%
2602	9	0		2271	97	967	1112	386	4833
Actual		0	1391	430	330	1051	1666	29	4897
Variation				-19.82%	240.21%	8.69%	49.82%	-92.49%	1.32%
1703	11.8	0		3780	577	833	1217		6407
Actual		0	2369	641	740	495	1230		5475
To Fell/amenity			433	117	135	90	225		1000
Variation				-5.83%	51.77%	-29.71%	19.50%		1.06%
1701	8.6	452		1129	316	1400	1219		4515
Actual		95	861	303	303	1087	2483		5132
Variation		-78.96%		-73.16%	-4.13%	-22.34%	103.68%		13.67%
2801	4.1	0		1823.74	108.88	381.08	326.64	81.66	2722
Actual		0	625	177	142	213	448	0	1605
Variation				-90.29%	30.42%	-44.11%	37.15%	100.00%	-41.04%

In addition to the blocks set out above there were a number of blocks which were only partly felled and for this reason it was not possible to produce a meaningful comparison of actual output in relation to that estimated through the MARVL process.

4.3 Replanting

Approximately 120ha were replanted following harvest with GF (growth factor) 17 radiata seedlings at a planting density of 1300spha (stems per hectare). A number of areas adjacent to watercourses and the Incline walkway were left unplanted to enhance riparian margins or to provide visual buffers for future harvesting activities – in accordance with Forest Working Plan and Report 00.318 “*Harvest of the Whakatikei Block*”, and Report 00.406 “*Replanting of the Pakuratahi East Forest*”.

4.4 Silviculture

All programmed silviculture for the year has been completed. The completion of the Mangaroa block was delayed as the successful contractor was unable to complete the block and abandoned the contract. The balance of the block was reallocated to one of the other contractors.

Silviculture completed this year:

Puketiro	Dude Ranch	34.9ha	Prune
Puketiro	Dude Ranch	34.9ha	Thin to 350spha
Puketiro	Whakatikei Face	53.1ha	Prune
Puketiro	Whakatikei Flats	4ha	Prune
Puketiro	Whakatikei Flats	4ha	Thin to 350spha
Puketiro	Curtis Flat	14.7ha	Prune
Puketiro	Curtis Flat	14.7ha	Thin to 350spha
Pakuratahi	Mangaroa	110ha	Prune
Whakatikei	Hydro Valley	18ha	Prune
Whakatikei	Hydro Valley	18ha	thin to 350spha

The contracted price for this work was \$150,914.

4.5 Forest Health

The Council is a member of the Forest Owners Association and through this organisation we have access to forest health inspections arranged through the Association. In the past this service has been provided by firstly, the Ministry of Forestry and then following the sale of the forest health section, by the Forest Research Institute.

As our forests are within 60km of a port we receive double the standard intensity of inspection with aerial inspection at 1 km transects, a 20km drive through survey, and 21 intensive inspection points. To date inspections have not revealed any “imported” insects or diseases. Like most forests there are a range of fungal and insect based health issues within the forest but these are such that no direct action is warranted at this time.

The Forest Owners Association has recently altered the requirements of the health inspection and put the process out for tender. The result for metro forests is a reduction in costs (for a reduced level of service) and a change in the inspection organisation. The contract for this area was won by Forest Health Dynamics of Rotorua. Although we have subsequently received an offer from FRI to continue to provide these services, after discussions with the Wairarapa Division a decision has been made to run with the new provider.

The increased interest in possum fur has resulted in a number of trappers seeking rights to take possums from the forests. Permission is granted on the proviso that we are advised of the number of possums taken. We are still budgeting for possum control which is carried out in conjunction with natural forestry or adjoining landowners to maximise the benefits.

4.6 Forest Access

The major projects this year have been the completion of the access road into the Pakuratahi East block and the commencement of the Rallywoods Bridge and rights of way.

The Pakuratahi East access road from State Highway 2 to the top of the saddle has now be used to truck out over 40,000 tonnes of logs and has required no maintenance other than an occasional grade to remove pot-holes. The inland section of the road has had a couple of traction problems when corrugations have caused the trucks to lose traction. These were initially treated by grading and remetalling but a more permanent solution appears to have been found by using millings. The internal tracks within the blocks are maintained under contract and monitored by the logging crews.

The agreement for the right of way through Rallywoods and the associated construction of a bridge over the Whakatikei River was delayed due to difficulties in settling all the legal issues associated with the rights of way. As a consequence work did not commence until June with an anticipated opening date of early October. This delay did not cause concern as the road through Rallywoods has yet to be upgraded and logging is not programmed to commence for some time yet.

5. Current Year Programme

In the current year it is intended to complete the harvest of the Pakuratahi block. At this time there are still 18 blocks above Ladle Bend and approximately 7,000tonnes remaining in one block in lower Pakuratahi East. Since the commencement of the current financial year there has been only one full time crew harvesting with volumes consequently being somewhat lower than budgeted.

Priority at this time is to reach agreement on the extent to which those blocks adjacent to the Incline walkway are to be harvested and the route by which the felled logs are to be transported. Once this is done a comprehensive plan can be put in place to

ensure the harvest occurs over the coming summer with minimum disruption to the walkway users of the walkway and minimal environmental effect on the Pakuratahi River.

To achieve this time scale, a decision on the option to be followed will be necessary by the completion of the Policy and Finance meeting on 26 October 2000. A workshop on this issue follows this meeting and a forest visit has been arranged for 18 October.

6. Proposals for 2001/02 Year

6.1 Harvesting

It is proposed that the balance of the Pakuratahi East block will be completed within the current financial year, if this does not occur harvesting may roll over into the succeeding year.

Following Pakuratahi East it is proposed to harvest:

Forest	Block	Block No.	Area (ha)	Estimated Volume (M ³)
Puketiro	MOT 73	7/02	14.9	7,810
Hukinga	Top Flat	2/1	1.5	682
Hukinga	Cocktail	6/1	5	2,490
Hukinga		6/02	5	2,495
Puketiro	MOT 74	7/1	44*	20,592
	Total			33,371

* Total block 66.4 hectares. The balance will be harvested in 2002/03 financial year.

6.2 Harvesting Tender

The Hukinga blocks together with the "Shilling" block to be harvested in 2002/03 are small areas along the main route through the Hukinga valley. A number of these are part stands where the portion adjacent to the road has already been harvested. Consolidated Forest Harvesting, which acts as the harvesting arm of Rayonier NZ, carried out this earlier harvesting. Because of the peculiarities of these blocks I would recommend that they be allocated to Rayonier NZ as an extension to their current contract. The total additional area is only 18.7ha or less than 10% of the original contract.

This would allow a contract to be offered for harvesting in Puketiro, Pakuratahi West and Valley View.

A four-year contract would result in the following blocks being offered for harvest.

Year	Forest	Block	Block No.	Area (ha)	Estimated Volume (M ³)
2001/2	Puketiro	MOT 73	7/02	14.9	7,824
2001/02	Puketiro	MOT 74	7/01	4.4	17,732
2002/03	Puketiro	MOT 74	7/01	22.4	9,027
2002/03	Puketiro	Harris North	8/01	20.0	5,820
2002/03	Puketiro	Harris South	8/02	60.0	24,960
2003/04	Puketiro	Harris South	8/02	39.5	17,183
2003/04	Puketiro	Blow Fly*	1/01	65.3	26,447
2004/05	Valley View	Reservoir Rg*	3/03	33.0	20,097
2004/05	Pakuratahi W	Martins	6/01	20.7	14,283
2004/05	Puketiro	Kaika Mako*	4/01	30.8	17,710
2004/05	Valley View	Castle Ridge*	3/01	2.6	905
2004/05	Valley View	*	3/03 & 3/04	32.2	25,274
Total					187,262

* Note, Forestry Encouragement Loans attached to these blocks.

6.3 Silviculture

The following blocks are programmed for silviculture during the 2001/02 year. This programme may be modified if any of the blocks fail to demonstrate anticipated growth.

Akatarawa Saddle	33.5ha Prune
Woolshed	14.4ha Prune
Pakuratahi West	65.7ha Prune
Pakuratahi West	Fertilizer
Land Preparation	Hukinga/Puketiro
Planting	Hukinga/Puketiro
Fertilizer	New plantings at 18 months.
	Other areas as required following nutrient analysis

6.4 Replanting

As each block is harvested it is assessed as to its suitability for replanting with a commercial crop. This assessment includes output from the previous rotation, likely output from the next rotation – given improvements in genetic quality and tending methodology, site fertility, access and windrun.

Where the site is assessed as suitable for replanting, it will be carried out in the winter following harvest and will be in accordance with the approved Forest Working Plan, and any other covenants required by Council. *Pinus radiata* seedling of GF 17 or better will be planted.

6.5 Recreation Implications

Puketiro forest includes the Battle Hill block and the first blocks to be harvested, MOT 73 and 74 lie south and southeast of the park. As a result there can be expected to be reasonable visitor numbers in the area – mainly bikers or pedestrians. While these blocks are being harvested there will be some inconvenience through the blocks being closed and the trucks using the road behind the Battle Hill block. There is ample access, albeit less convenient, to other blocks in the forest.

The suspension of access to roads and tracks within the Puketiro Forest will be managed in conjunction with the Battle Hill Ranger to ensure adequate advice and signage. Over time as blocks are systematically harvested it is likely the area will become less popular with visitors as it will tend to be fairly exposed to the northerlies without mature tree cover. This will put increasing pressure on the remaining stands.

The replanted trees on the MOT blocks will be 19 years old when the Battle Hill block is harvested and as such will prove a suitable substitute for recreational purposes.

This forest is also within the area allocated for motorised recreation, predominantly quads, and 4WDs. These uses can be directed to standing sections of the forest but replanted areas will not be popular as substitutes and the roads within the blocks will have been upgraded and thus will not present a “challenge”. It is likely that as a consequence more use will be made of the tracks within the indigenous areas.

This aspect of the harvest will be managed in conjunction with the “Roving” Ranger.

7. Recommendations

It is recommended that:

- (1) *The Committee notes that it is intended to complete the harvest of the Pakuratahi East block this year.*
- (2) *Subject to agreed riparian and visual setbacks, and appropriate financial and suitability analysis, the area harvested will be replanted next winter.*
- (3) *The Committee notes that the activities proposed for the 2001/02 year will form the basis of the 2001/02 proposed Plantation Forestry Department budget.*
- (4) *The Committee approves the present contract with Rayonier NZ Ltd being extended by the inclusion of the blocks specified in clauses 5.1 and 5.2 of the report.*

Report prepared by:

Approved for submission by:

BARRY LEONARD
Plantation Forestry Manager

DAVID BENHAM
Divisional Manager, Utility Services