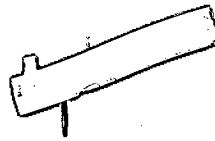


Jan '90



SOUTHERN PLANTATIONS CHIP CO. PTY. LTD.

(INCORPORATED IN WESTERN AUSTRALIA)

**PROPOSAL FOR THE
EXPORT OF WOODCHIPS
THROUGH THE PORT OF BUNBURY:
VARIATION OF McLEAN CONSOLIDATED PTY LTD (1988) PROJECT
CONSULTATIVE ENVIRONMENTAL REVIEW
JANUARY 1990**

SOUTHERN PLANTATIONS CHIP CO PTY LTD

**PROPOSAL FOR THE
EXPORT OF WOODCHIPS
THROUGH THE PORT OF BUNBURY:
VARIATION OF THE McLEAN CONSOLIDATED PTY LTD (1988) PROJECT
CONSULTATIVE ENVIRONMENTAL REVIEW
JANUARY 1990**

**PREPARED BY
Ian Pound & Associates Pty Ltd
in association with
Havel Land Consultants**

TABLE OF CONTENTS

SUMMARY

1. INTRODUCTION

- 1.1 Original Submission
- 1.2 Changes in Project Ownership
- 1.3 Changes in Proposal

2. BACKGROUND: SILVICULTURE PRACTICES, TIMBER MILLING AND BY-PRODUCT WOODCHIP PRODUCTION

- 2.1 Relation of the Proposal to the Timber Strategy
- 2.2 Changes Resulting from Implementation of the Timber Strategy
- 2.3 Competition and Co-operation in the Timber Industry

3. THE MODIFIED PROJECT

- 3.1 Proponent
- 3.2 Objectives
- 3.3 Mode of Operation
- 3.4 Purchase, Transport and Sale of Woodchips
- 3.5 Statutory Requirements

4. EVALUATION OF THE MODIFIED PROPOSAL

- 4.1 Need for the Proposal
- 4.2 Benefits of the Proposal
- 4.3 Social and Environmental Impacts of the Proposal
 - 4.3.1 Log Resource
 - 4.3.2 Transport
 - 4.3.3 Integrated Sawmill/Chipmill
 - 4.3.4 Port Operation
 - 4.3.5 Aesthetics
 - 4.3.6 Community Benefits
 - 4.3.7 Balance of Project Impacts

5. ENVIRONMENTAL MANAGEMENT
6. BIBLIOGRAPHY
7. ACKNOWLEDGEMENTS

APPENDICES

- APPENDIX 1** CALM Letter Approving Transfer of Contract of Sale 861 to Whittakers - 16 October 1989.
- APPENDIX 2** CALM Letter to Minister for Environment.

ABBREVIATIONS

CALM	Department of Conservation and Land Management
CER	Consultative Environmental Review
EPA	Environmental Protection Authority
McLean	McLean Consolidated Pty Ltd
Minister	The Western Australian State Minister for Environment
SPCC	Southern Plantations Chip Co Pty Ltd
TPS	TPS Group Ltd
Whittakers	Whittakers Ltd
WACAP	W A Chip and Pulp Company Pty Ltd

SUMMARY

In 1988 McLean Consolidated Pty Ltd obtained the approval of the Minister for Environment to export 50,000 cubic metres per annum (60,000 green tonnes per annum) of woodchips derived from the residue of its Denmark sawmill operation through the port of Albany.

In 1989 the Denmark Sawmill was bought by Whittakers Ltd and McLean's interest in the woodchip export proposal was acquired by Southern Plantation Chip Co Pty Ltd (SPCC) a joint venture company owned by Whittakers and the TPS Group Limited. Whittakers is currently reviewing the proposal to modify the Denmark mill to accept larger volumes of low grade logs and SPCC is reviewing the viability of the proposal to export woodchips through Albany.

As an interim measure, for a period of two years, SPCC seeks approval to export 50,000 cubic metres per annum (60,000 green tonnes per annum) of woodchips through the port of Bunbury. This interim operation will permit SPCC to establish firm contracts for the export of chips and provide the cash flow to fund the reappraisal and if appropriate implementation of the Albany export proposal.

During the period of project re-evaluation woodchips will come from the Denmark and other sawmills in the South West region. The entire volume of chips will be derived from the residues of logs taken by the mills after the sawn timber content has been removed. A comprehensive inventory and reporting system will be established to provide verification of compliance with the condition that the volume of chips be derived from the residue of sawmilling.

The 1988 McLean proposal entailed export woodchips being transported from Denmark to Albany, rather than Bunbury as had historically been the case. Under the interim arrangement now proposed by SPCC, woodchips will continue to be transported to Bunbury from existing sources. At Bunbury the woodchips will be stored and loaded under contract at the existing WACAP facilities.

Therefore the interim proposal, whilst a variation on the McLean Consolidated Pty Ltd proposal approved by the Minister for Environment in 1988, really represents maintenance of the status quo in terms of existing impacts upon the environment. The benefits which would have been experienced in transporting chips and exporting them through Albany will be deferred during the SPCC reappraisal. Likewise any adverse impacts associated with the proposal will also be deferred.

1. INTRODUCTION

Southern Plantation Chip Co Pty Ltd seeks the approval of the Minister for Environment for a proposal to export for a period of two years 50,000 cubic metres per annum (60,000 green tonnes per annum) of woodchips derived from sawlog residue produced at the Denmark and various timber mills in the southwest of Western Australia through the port of Bunbury.

1.1 Original Submission

In 1988 McLean Consolidated Pty Ltd (McLean) sought and obtained approval of the Minister for Environment to export through the port of Albany 50,000 cubic metres per annum (60,000 green tonnes per annum) of woodchips to be produced as a by-product of enlarged sawmilling operations at Denmark. The approval was conditional on the woodchips being derived solely from sawmill residues generated from the processing of logs derived from Crown Land. The bulk of the logs were to be obtained from the Department of Conservation and Land Management (CALM) under Contract of Sale 861.

Implementation of the proposal required the modification of the sawmill to utilise the low quality logs being offered under Contract of Sale 861, namely 10,000 cubic metres of 3rd grade karri logs and 45,000 cubic metres of 2nd grade marri logs per annum for three years. It was envisaged that additional low grade logs required to satisfy the sawmill's proposed increased annual throughput capacity of 100,000 cubic metres would be obtained from the auction sales of salvage logs from the normal logging operations of CALM within the region. This would make possible the annual production of 29,000 cubic metres of sawn timber and 50,000 cubic metres of woodchips.

1.2 Changes in project Ownership

Since the granting of the original approval, there have been several significant changes which have a bearing on the project. The most significant of these is the purchase of the Denmark sawmill by Whittakers Ltd. The log resource which was to be utilised by the McLean owned mill is now available to the new owners. CALM has indicated in its letter dated 16 October 1989 that it is prepared to transfer to Whittakers the commitments to McLeans under Contract of Sale 861 (see Appendix 1).

Woodchips produced at the Denmark mill will be sold to the Whittakers/TPS Group joint venture company, Southern Plantations Chip Co Pty Ltd (SPCC). SPCC will be responsible for their subsequent export.

Although not applicable to this application SPCC will also purchase the woodchips to be exported under the separate Whittakers proposal.

Condition 5 of the Minister for Environment's "Statement That a Proposal May Be Implemented" (11 November 1988) for the McLean Consolidated Pty Ltd export proposal (1988), required that any transfer of ownership of the project receive Ministerial approval of the replacement proponent. The Minister, on 27 November 1989, approved SPCC as the replacement proponent for the McLean Consolidated Pty Ltd woodchip export proposal. In separate correspondence of the same date the Minister advised SPCC that it was only permitted to implement the McLean Consolidated Pty Ltd proposal as submitted and approved in 1988.

1.3.2 Changes in Proposal

On 11 September 1989, SPCC outlined in a letter to the Chairman of the EPA its intention to alter the McLean Consolidated Pty Ltd woodchip export proposal as approved in 1988. SPCC as the replacement proponent proposed that for a 2 year period woodchips would be exported through Bunbury rather than Albany, so as to allow time for a re-evaluation of the feasibility of exporting through Albany.

In accordance with the Minister's advice of the need for further assessment of the modified proposal, SPCC in a letter dated 28 December 1989 formally referred the proposed interim export arrangement to the EPA. EPA determined that formal assessment of the modified proposal was required and set the level as Consultative Environmental Review (CER).

2. BACKGROUND: SILVICULTURE PRACTICES, TIMBER MILLING AND BY-PRODUCT WOODCHIP PRODUCTION

72
The Department of Conservation and Land Management is of the opinion that as the source of the woodchips proposed for export under this proposal will be entirely sawmill residues; the project will not lead to any increase of the area of Crown land, including State forest, subject to logging. That advice has been conveyed to the Minister for Environment. With the permission of CALM and the Minister the letter containing that advice is attached as Appendix 2.

Was this considered with CALM advice

In the opinion of CALM the project will result in a higher degree of utilisation of the existing log resource, which is a trend consistent with that Department's Timber Strategy (CALM 1987). It is appropriate at this stage to consider the timber production situation in Western Australia. Although most of the points mentioned here have been previously expressed it is considered worthwhile recapitulating now that the Timber Strategy, published before the submission of the original McLean (1988) proposal, is beginning to have a significant effect on the industry.

2.1 Relation of the Proposal to the Timber Strategy

As in any economic activity the primary financial consideration is its viability, determined by the balance between the cost of production and the price obtained for the product.

The cost of production is determined by such factors as the availability and quality of the basic resource (in this case hardwood logs) the efficiency of the production process and the cost of labour and transport.

The price obtained for the product is determined by the quality and quantity of the product in relation to the demand. For instance, when the level of production is high and the demand is low, only the highest quality product is saleable, whereas when the demand is high and the production is limited by the availability of the basic material, the whole of the production, including lower quality products, can be sold.

The first situation characterised the early years of the Western Australian timber industry, when only highest quality structural material could be sold overseas and the amount of lower quality product that could be absorbed by the local market was limited. Under these conditions only the highest quality raw material, namely large defect-free logs, could be utilised economically, and even the utilisation of these was incomplete, resulting in a high proportion of unsaleable off cuts. However, between 1970 and 1989 the reduced availability of hardwood logs resulted in a drop of annual production of sawn hardwood timber from 425,295 cubic metres to 287,357 cubic metres.

Chad

The need for silvicultural treatment of the karri-marri forest to achieve satisfactory regeneration and subsequent growth has long been recognised (White 1971), but it has only recently become feasible (Bradshaw 1985). The current decreased availability of logs and increased availability of markets for a wide range of products, from high quality furniture timbers to woodchips, makes possible the utilisation of low quality logs to a greater degree than ever before.

The situation between these two extremes of supply and demand can be looked upon as a complex historical process which is still developing, driven by economic pressures and facilitated by technological progress. Within this process there are no absolute boundaries, but a progressive, though not always unidirectional, shift toward the acceptance of lower quality logs.

This development is paralleled by a similar development in silviculture. In the early stages of forestry in Western Australia the selection, by the timber industry, of only the highest quality logs and the retention of the remainder of the stand, gave the foresters little scope for effective regeneration and subsequent silvicultural treatment. The resource available was large in proportion to the population of the state.

Progressively the royalty charges for the logs increased and a greater proportion of this income was directed toward the protection and silvicultural treatment of the forest. The forest estate available for timber production was defined and fixed and the demand for timber products by a larger population became higher as the range of saleable products from the forests greatly expanded. There is therefore both justification and motivation for the acceptance of a much lower grade of log resulting in a much more intensive form of silviculture being possible.

The essence of the situation, set out in the CALM Timber Strategy (1987), is that future availability of timber is dependent on the thoroughness and timeliness of silvicultural treatment at present, which is largely dependent on the acceptance of low grade logs. Any change in forest resource utilisation towards greater yield from lower quality logs is thus seen as beneficial to the forest.

The Acting Director of Forest, Mr. Don Keene, regards (personal communication) the former owner of the Denmark sawmill (Mr. G. McLean) as a pioneer in the field of increased utilisation of low grade logs. This philosophy is reflected in the structure of the Denmark sawmill and operation under new ownership. In keeping with this philosophy only the residues, after the recovery of any sawn timber content, of any log will become woodchips to be purchased under this proposal. Furthermore, Mr Keene views the utilisation of low grade logs as an important means of facilitating higher production from the forest which is the aim of the Timber Production Strategy for the Southern Forests (CALM 1987a). The importance of improved sawmill recovery in conserving forests is recognised worldwide (Aranez 1981).

2.2 Changes Resulting from Implementation of the Timber Strategy

However, as described in Section 2.1 higher utilisation is not solely the product of technological innovation as this is limited by economic forces.

In this case utilisation of low quality logs is determined by the capacity to profitably sell the products of the sawmilling process. In particular the amount of chipwood produced, as the proportion of the log that ends up as sawmill residues, is inversely proportional to the quality of the log. The changes resulting from the new Timber Strategy of CALM, namely the scale of prices of low quality logs compared to high quality logs, reward any technological innovation that makes their utilisation possible. In other words unless there is a market for woodchips there is no incentive to mill these low quality logs to produce sawn timber to make the whole operation viable.

The trend of log pricing (see Tables 1 & 2) is such that it is cheaper to purchase a low quality log for milling than it is to purchase the same log for chipping.

TABLE 1

TRENDS IN WOODCHIP ROYALTIES

PERIOD	CHIPLOG ROYALTY (\$/TONNE)
1969-Dec 1974	\$0.44 - 0.61
Jan 1975 - Dec 1980	\$0.61
Jan 1981 - Dec 1985	\$2.59
Jan 1986 - To Date	\$8.47*

*currently under review to increase the price.

TABLE 2

CURRENT SAWLOGS ROYALTIES FROM STATE FOREST
IN SOUTHERN FOREST REGION

(SOURCE: DEPARTMENT OF CALM)

Marri/karri chiplogs	=	\$10.29/m3 (\$8.47/tonne)*
1st grade karri sawlogs	=	\$34.00/m3
2nd grade karri sawlogs	=	\$24.23/m3
Small karri sawlogs	=	\$18.32/m3
Medium regrowth marri/ karri sawlogs	=	\$25.87/m3
Small regrowth marri/ karri sawlogs	=	\$14.24/m3
Marri sawlogs	=	\$12.00/m3

*currently under review to increase the price.

The culmination of this trend would be the testing of every log of marginal quality to produce sawn timber, before it is converted to chipwood. The Denmark sawmill is designed to do so and has already demonstrated its capacity to utilise low grade logs to obtain higher recovery of sawn timber from them than is possible in other sawmills. The proposal submitted therefore fulfills the aims of the Timber Strategy.

Cannot follow this

However, it is not intended to give the impression that the Denmark Sawmill is the only one capable of utilising low grade resource. The Gandhi Sawmill has long utilised marri logs for the production of sawn timber and other sawmills in the southwest (e.g. Bunnings Pemberton mill) are now being modified to enable them to utilise low grade logs.

This development is being made possible by the greater security of resource for those sawmills prepared to make the necessary adjustment to bring them in line with the CALM objectives of fuller utilisation and greater added value. Therefore these sawmills will have greater access to logs which in the past may have been chipped. This will result in a greater production of sawmill residue which this proposal aims to utilise.

But what is the relevance of this to this proposal.

2.3 Competition and Co-operation in the Timber Industry

A further significant trend is the growing recognition by the timber industry in Western Australia that it is subject to competition from alternative sources of supply and substitute materials. Imported wood products (Table 3) from countries with extensive areas of tropical rainforest and cheaper labour (Indonesia, Phillipines, Papua New Guinea and Malaysia) and competition from within Australia for other building materials (steel, aluminium, bricks and concrete) make it imperative for the industry to co-operate in order to survive.

TABLE 3

IMPORTS OF TIMBER AND WOODWARE INTO AUSTRALIA

(SOURCE: AUSTRALIAN BUREAU OF STATISTICS - IN CALM 1989)

YEAR	TIMBER	WOODWARE
1970	10 968	170
1971	6 761	806
1972	5 578	819
1973	8 326	939
1974	11 738	861
1975	14 053	751
1976	19 960	421
1977	24 857	792
1978	24 039	952
1979	18 200	508
1980	26 801	716
1981	28 691	997
1982	26 068	548
1983	23 738	070
1984	26 480	449
1985	37 871	360
1986	37 858	904
1987	47 950	173
1988	52 762	401

There is also recognition that production of high quality-high value product is only viable if the lower value by-products of that process can be profitably marketed. The renewal of the resource is dependent on these markets being available for the products of this inferior material which if left on the forest floor stands in the way of regeneration and appropriate silvicultural treatment.

There is now no place in the West Australian timber industry for individual companies to act in isolation and all must co-operate in the production of sawn timber and woodchips for the utmost utilisation of the available resource.

*Is this
the
business model?*

But this logic
is circular, is it
not?
Is a new
facility
needed?

In the markets for added value products the cost of production and transport is critical, and a new export facility can only be justified if it is proven to be economically viable. Whilst the development of a woodchip loading facility in the port of Albany is still a long term objective of SPCC, its economical viability needs to be further investigated. The aim of this modified proposal is to allow such a study to be undertaken and to create the necessary capital base to develop the project if proven viable. In the interim fuller utilisation of the existing WACAP woodchip loading facility at the port of Bunbury should prove beneficial in increasing that Company's penetration of international markets.

Economic
argument.

Principal
aim?
or commitment
to be made

3. THE MODIFIED PROJECT

3.1 Proponent

This Review is submitted by Southern Plantation Chip Co Pty Ltd, a joint venture company of Whittakers Ltd and the TPS Group Limited. The original proponent, McLean Consolidated Pty Ltd (now defunct) was a wholly owned subsidiary of the TPS Group. The Denmark sawmill then owned by McLean Consolidated Pty Ltd and on which the original proposal was based is now owned by Whittakers Ltd.

3.2 Objective

The objective of this proposal is to obtain approval for SPCC to export 50,000 cubic metres of woodchips per annum for a period of two years during which time SPCC and Whittakers will re-evaluate the implementation of their respective interests in the McLean Consolidated 1988 woodchip export proposal. The export of woodchips by SPCC over that two year period will:

- * permit it to establish markets and gain export experience;
- * fund re-evaluation of the establishment of the Albany export proposal and, through Whittakers, evaluation of proceeding with modifications to the Denmark sawmill; and
- * contribute to the capital for these works should they proceed.

3.3 Mode of Operation

It is proposed to change for a period of two years the mode of operation of the project by :-

- * utilising the existing woodchip loading facilities at Bunbury until the financial viability of restructuring the Denmark Sawmill and developing loading facilities at Albany can be re-evaluated by the respective operators; and
- * utilising sawmill waste from additional sawmills in the southwest region to provide the full export quantity whilst the financial evaluation of the restructuring of the Denmark sawmill is in progress.

3.4 Purchase, Transport and Sale of Woodchips

Under the interim proposal, in addition to those woodchips produced as a by-product of sawn timber production at the Denmark sawmill, woodchips produced from sawmill residues will also be purchased from other sawmills in the South West. No woodchips will be derived directly from logs from Crown land and no logs whatsoever will be accepted from private property.

Woodchips will be sold to Marubeni Corporation of Japan, under a contract of sale yet to be finalised. The WA Chip and Pulp Company's facilities at Bunbury and Diamond Chipmill will be used in the shipment of the woodchips under an arrangement whereby WACAP will act as shipping agent for SPCC. Rates of payment for these services have yet to be finalised. The woodchips will be transported by trucks either directly to the port of Bunbury or alternatively to the railhead at the Diamond Chipmill and thence via Westrail to Bunbury.

The accounting basis for woodchips will be weighbridge dockets. For incoming woodchips these will be obtained prior to being accepted by WACAP, either at the public weighbridge in the port of Bunbury or at the commercial weighbridge at Diamond Chipmill. At the time of ship loading for export, allowance for moisture loss whilst in storage awaiting shipment will be based on seasonal trends for moisture loss. This practice has been established based on data accumulated over the past decade by WACAP. The sale of woodchips to Marubeni will be on the basis of bone-dry weight.

At the end of each year of operation SPCC will provide documentation of the purchase of woodchips from the sawmills, based on the purchase dockets, and of their sale to Marubeni Corporation. The documentation will incorporate allowances made for moisture loss in storage.

3.5 Statutory Requirements

The issue of the Commonwealth export licence is conditional on the proponent meeting the Commonwealth and State requirements regarding pricing arrangements, export volumes and ports, source materials, environmental protection, further processing and reporting. As the source material is to be wholly sawmill waste, and pricing, further processing and port conditions will be similar or identical to those already in place for exports from Western Australia, the main issue remaining is satisfying environmental protection requirements. As stated in Section 2.2, the Environmental Protection Authority has requested a Consultative Environmental Review of the modified interim proposal. This Review covers the proposed modifications and their impact.

but may be after go to mills

whose? (Is this excessive?)
11

3

*to the logs
begin that will
woodchip
class (these)
logs will
not be
- or will be
left to rot.*

4. EVALUATION OF THE MODIFIED PROPOSAL

4.1 Need for the Proposal

The assumption on which the original proposal has been based, namely that Australia is already experiencing a shortage of sawn timber, and in future will do so to an even greater degree, has not changed. Improved utilisation of low grade logs, which are either not being used at all or only as a source of woodchips, is a means of reducing this deficit whilst allowing regeneration and subsequent sivicultural treatment of the cut-over forest.

The implementation of the Timber Strategy for Western Australia (CALM 1987), which was a relatively new document at the time of the original submission, is now exerting a significant influence on the Western Australian timber industry. It is creating conditions which are conducive to successful implementation of the proposal in its modified form. The developments pioneered at the Denmark Sawmill are now being incorporated into other sawmills in the region, and will result in greater utilisation of low grade logs, and as a by-product higher volumes of sawmill residues suitable for chipping.

Giving SPCC the necessary permission to directly export woodchips over the coming two years will:

- * permit it to establish markets and gain export experience;
- * fund re-evaluation of the establishment of the Albany export proposal and evaluation of proceeding with modifications to the Denmark sawmill; and
- * provide the capital for these works should they proceed.

4.2 Benefits of the Proposal

The proposed changes do not alter benefits to Western Australia in terms of greater employment opportunities, or the benefits to the Commonwealth of Australia in terms of increased export earnings and reduced import bills for timber products.

It does, however, transfer the benefits of increased throughput from the port of Albany to the port of Bunbury. This however is seen as a short term effect. The export through Albany, still the long term objective of SPCC, will be made more feasible by the maturing of the hardwood plantations now being developed in the south coast region.

As stated in the original McLean Consolidated Pty Ltd (1988) proposal some of the finance generated by the long term proposal to export woodchips from Albany is intended to be used in furthering the development of these plantations. Plantations are the long term means of improving the size, and hence the profitability of the woodchip export industry on the south coast. These plantations have significant side benefits in assisting in a reduction of the effects of salinity and wind erosion.

*Reprints
3-2*

*Did
there is
not
throughput*

*But
these
will
improve*

where

4.3 Social and Environmental Impacts of the Proposal

4.3.1 Log Resource

No additional area of old growth forest will be logged under this proposal, and the quantity of woodchips produced will be the same, therefore no new impacts are envisaged in the forest. Both the original McLean proposal and this project utilise the residue of sawing low grade logs which would historically have been consigned directly for chipping. As the sawn timber recovery is anticipated to be 20-30% of the log volume, a total volume of 100,000 cubic metres of low grade logs will be required to produce the sawn timber and the chips.

Much of this 100,000 cubic metres will come from logs that in the past may have been chipped directly by WACAP and thus equivalent volumes of chipwood resource will have to be found from an alternate source. As no new area of old growth forest will be logged, these volumes will be generated by the lowering of the minimum acceptable standard for chiplogs. Technological improvement in debarking (Dames and Moore 1987) and increased intake of small dimension logs produced by CALM thinning operations in regenerated stands will also assist in making up any deficit. As can be seen in Table 4 the annual contribution of these thinning operations to the total chipwood yield has increased from 4174 to 82,125 cubic metres between 1979/80 and 1988/89 (CALM 1989). As thinning operations are an important means of speeding up the growth of trees (to sawlogs) in regenerated stands the overall effect of thinning is beneficial to the timber production forest.

TABLE 4
Trend in Woodchip Production

Year	Crown Land										Private Property Chiplogs (m ³)	Total C.L. & P.P. Chiplogs (m ³)	Percentage Private Property to Total (%)	
	Chips from Residue			Chiplogs from Thinning Regrowth Forest			Chiplogs from Old Growth Forest Operations							Total C.L. (Regrowth and Oldgrowth)
	Sawmill (t)	Forest (t)	Subtotal (t)	Marri (m ³)	Karri (m ³)	Subtotal (m ³)	Marri (m ³)	Karri (m ³)	Other (m ³)	Subtotal (m ³)				
1975/76							77655	20712	3	98370	98370		98370	
1976/77	32007		32007				241207	135814		377021	377021		377021	
1977/78	89390		89390				329190	105187		434377	434377		434377	
1978/79	114766		114766				353928	100168		454096	454096	18865	472961	4.0
1979/80	137503		137503	292	3882	4174	439666	116975	1476	558117	562291	53197	615488	8.6
1980/81	187501		187501	1794	17565	19359	386664	105604	3448	495716	515075	58983	574058	10.3
1981/82	74561		74561	1728	21676	23404	255069	90734		345803	369207	16116	385323	4.2
1982/83	77486		77486	3137	23702	26839	284670	100608		385278	412117	21835	433952	5.0
1983/84	87833		87833	2961	24293	27254	339389	78371		417760	445014	57598	502612	11.5
1984/85	88297		88297	2263	22176	24439	400828	71613		472441	496880	91702	588582	15.6
1985/86	110494		110494	555	30918	31473	428514	54448		482962	514435	64914	579349	11.2
1986/87	88111		88111	500	55753	56253	444076	52364		496440	552693	99923	652616	15.3
1987/88	104750	2200	106950	764	72040	72804	551673	72490		624163	696967	112884	809851	13.9
1988/89	102321	5270	107591	4214	77911	82125	459775	71397		531172	*613297	91865	705162	13.0
Cum. Tot.	1295020	7470	1302490	18208	349916	368124	4992304	1176485	4927	6173716	6541840	687882	7229722	9.5

* Includes Forest Residue.

(Source: CALM 1988/89 Annual Report)

4.3.2 Transport

As a result of this proposal there will be no change in the level of woodchip transport between Denmark and Bunbury on the South Coast and South Western Highways (National Route 1). The same quantity will continue to be transported from the Denmark mill to WACAP's Bunbury ship loading facility.

There will also be no incremental adverse transport impact on any road system in the South West as the current level of woodchip production from other mills will also be transported under existing transport arrangements to WACAP's Bunbury ship loading facility.

However there will be a beneficial transport impact on the town of Denmark as compared to the 1988 proposal. There will now be no woodchip transport to Albany so the cause of much public concern regarding heavy vehicle movements through the town land over the river bridge has ceased to exist.

Now there is a proposal
As proposed under the McLean Consolidated Pty Ltd project it would have required 14 log trucks per day (Monday to Friday) using South Coast and South Western Highways to transport the log resource from the Manjimup area to the Denmark mill. Under this proposal the number of log trucks using this route will remain at 5 per day.

4.3.3 Integrated Sawmill/Chipmill

Noise, emission of combustion gases and smoke, water runoff from the sawmill area at Denmark and the generation of dust resulting from the modified operation will be less than the original proposal because a proportion of the woodchips will now come from other sawmills in the region.

The EPA is currently preparing an operations license for the Denmark Mill under Part IV of the Environmental Protection Act.

4.3.4 Port Operation

With the temporary transfer of the shipment of the woodchips from Albany to Bunbury, any adverse impacts to Albany will be eliminated, as will the beneficial effect of increased throughput from the port and associated employment opportunities.

The proposed export of woodchips through the existing storage and loading facilities at Bunbury will lead to an increase of approximately 8% in activity. The environmental impact of this will be minimal as no new facilities will be required. The greater usage of existing facilities is seen as being economically beneficial.

4.3.5 Aesthetics

There will be no significant change in the aesthetic impact at the sawmills producing woodchips for export under this interim proposal.

4.3.6 Community Benefits

The overall benefit to Australia in general and Western Australia in particular will not be changed by the proposed modifications. However the localised benefits to Denmark and Albany of the McLean proposal in terms of employment and trade will now be experienced by those southwest centres producing the woodchips and in Bunbury.

4.3.7 Balance of Project Impacts

As was the case for the original McLean proposal (1988), the benefits accruing from the modified project are greater than the adverse environmental impacts incurred.

The increase in both benefits and adverse impacts resulting from shipping arrangements will be less noticeable in Bunbury than the corresponding decrease in both beneficial and adverse impacts would be in Albany. Increased activity in Bunbury amounts to a relatively minor change in the current situation whereas the original proposal would have amounted to a significant development at Albany.

In terms of environmental impacts, the interim proposal largely represents maintaining the existing sawlog milling and woodchip production arrangements. The community and the environment will be little affected by these interim arrangements which will, however, permit SPCC to re-evaluate the export of woodchips through the port of Albany as proposed by McLean in 1988. Simultaneously Whittakers will review the feasibility of modifying the Denmark sawmill to produce the 1988 approved 50,000 cubic metres (60,000 green tonnes) per annum of woodchips.

During this 2 year period of re-evaluation Albany will forego the benefits that the 1988 McLean proposal offered however, it is still SPCC's objective to proceed with the proposal to export through this port. Then previously expounded benefits and impacts will apply.

The benefits and impacts of this 2 year proposal to export from Bunbury will be minimal as the increase in volume handled as a result of this project will hardly be noticed in the overall operation of that City and port.

5. ENVIRONMENTAL MANAGEMENT

SPCC the proponent for this project gives the following commitments:

- * The term of this interim arrangement will be limited to a period of two years from the date of issue of an export licence unless prior to expiry the Minister for Environment agrees to permit a further evaluation period or the implementation of the proposal as originally approved in 1988 (EPA 1988b).
- * If SPCC chooses not to proceed with its proposal to export woodchips in accordance with the McLean 1988 proposal, it will refer alternative export options to the Environmental Protection Authority for its advice.
- * All woodchips purchased by SPCC for export under this approval will be derived from residue of sawlogs from Crown Land.
- * SPCC will maintain a system for accounting for the source and destination of all woodchips exported under this interim arrangement and report annually to the Environmental Protection Authority demonstrating that the prescribed volume of 50,000 cubic metres (60,000 green tonnes) was derived from sawlog residue.

6. BIBLIOGRAPHY

Aranez G B (1981). Improved Sawmill Recovery Can Help Conserve Forests. World Wood 22:24-25

Bradshaw, F J (1985). . Silvicultural Guidelines for the Treatment of Even-ages Regrowth and Two-tiered Karri forests, TEchnical Report No. 1, Department Conservation and Land Management, Western Australia.

Dames and Moore (1987). WACAP Towards 2005.

Department of Conservation and Land Management (1987). Timber production in Western Australia - A Strategy to Take WA's South-West Forests into the 21st Century. December 1987.

Department of Conservation and Land Management (1987a). Regional Management Plan 1987-1997. Southern Forest Region. December 1987.

Department of Conservation and Land Management (1989). Annual Report 1988-89. Government Printer, Western Australia.

Environmental Protection Authority (1988). The Western Australian Woodchip Industry - WA Chip & Pulp Co Pty Ltd. Report and Recommendations of the Environmental Protection Authority. Bulletin No. 329, July 1988.

Environmental Protection Authority (1988a). Environmental Guidance for Land Use and Development in South Western Australia. Bulletin 319 No. 1. March 1988.

Environmental Protection Authority (1988b). Report and Recommendations of the Environmental Protection Authority, Woodchip Export Proposal, McLean Consolidated Pty Ltd. EPA Bulletin 345, September 1988.

McLean Consolidated Pty Ltd (1988). Woodchip Export Proposal Notice of Intent. Prepared by Ian Pound & Associates Pty Ltd.

White, B J (1971). Regeneration of methods in Mixed Marri/Karri Stands, Research Paper No 4 Forests Department of Western Australia.

7. ACKNOWLEDGMENTS

The following groups and individuals have been consulted in undertaking this review. Their advice and assistance in determining the projects content and environmental significance is appreciated.

Mr D Keene, Acting Director of Forests, Department of Conservation and Land Management.

Mr J Oldham, Director, WA Chip and Pulp Pty Ltd.

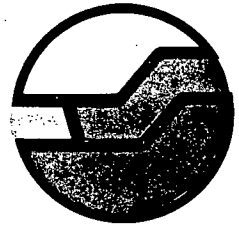
APPENDIX 1

**CALM LETTER APPROVING TRANSFER OF
CONTRACT OF SALE 861 TO WHITTAKERS
16 OCTOBER 1989**

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

HEAD OFFICE
HACKETT DRIVE CRAWLEY
WESTERN AUSTRALIA
Phone (09) 386 8811
Telex AA94585
Facsimile (09) 386 1578

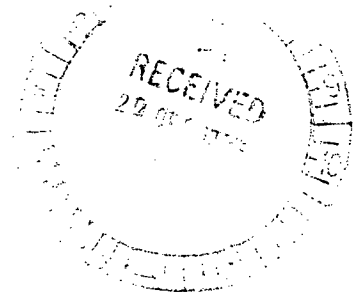
STATE OPERATIONS HEADQUARTERS
50 HAYMAN ROAD COMO
WESTERN AUSTRALIA
Phone (09) 367 0333
Telex AA 94616
Facsimile (09) 367 0466



Please address all correspondence to Executive Director, P.O. Box 104, COMO W.A. 6152

Your Ref: PER/BJF/346
Our Ref: 027759F1406 DJK:SD
Enquiries: Mr Keene
Phone: 367 0407

The General Manager
Whittakers Limited
Locked Bag 12
CANNINGTON WA 6107



Dear Sir

CONTRACT OF SALE 861

I refer to your letter of 22 August 1989. The Department is prepared to transfer to your company the commitment it made to McLean Consolidated Pty Ltd as evidenced in the Contract of Sale 861 which was never executed by the Executive Director. In the circumstances, under separate cover, a new Contract of Sale 861 document identical to the original document but in the name of Whittakers Limited, will be forwarded for your signature.

Would you please then return it for execution by the Executive Director, together with your deposit of \$10,000 in the form nominated in the First Schedule of the Contract document.

With respect to your request for the Department to allow your company to take a sample of the marri logs for processing at your Greenbushes mill, I would draw your attention to the fact that it is a condition of the contract that it is the responsibility of the buyer to select logs suitable for its purposes from dumps of logs which would otherwise be delivered to the chipmill.

In the first instance, I am agreeable for you to select up to 1,000 cubic metres of logs from integrated logging operations in the Kirup district as soon as they recommence. Would you please make the necessary arrangements with the Kirup district office.

Yours faithfully

D J Keene
MANAGER FOREST RESOURCES DIVISION
for Syd Shea
EXECUTIVE DIRECTOR

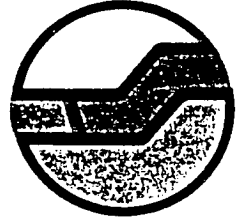
16 October 1989

APPENDIX 2
CALM LETTER TO MINISTER
FOR ENVIRONMENT

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

HEAD OFFICE
HACKETT DRIVE CRAWLEY
WESTERN AUSTRALIA
Phone (09) 386 8811
Telex AA94585
Facsimile (09) 386 1578

STATE OPERATIONS HEADQUARTERS
50 HAYMAN ROAD COMO
WESTERN AUSTRALIA
Phone (09) 367 0333
Telex AA 94616
Facsimile (09) 367 0466



Please address all correspondence to Executive Director, P.O. Box 104, COMO W.A. 6152

Your Ref:

Our Ref: 026998F1307/026687F1307

Enquiries:

Phone:

HON MINISTER FOR TRANSPORT AND ENVIRONMENT

Dear Minister

**PROPOSAL TO AMALGAMATE WOODCHIP LICENCES GRANTED TO
MCLEAN CONSOLIDATED PTY LTD AND WHITTAKERS**

I refer to a recent meeting held in your office with my officer, Mr Keene. Mr Paul Frewer from the Minister for Conservation and Land Management's office and Mr Angus Hopkins were also present.

You requested that I provide you with an assurance that the application would not involve the harvesting of additional areas of forest prior to you giving approval to the application.

The Woodchip Industry Agreement governs the operations of WA Chip & Pulp Co (WACAP). The Act specifies that the State is required to supply to the company a quantity of timber not suitable for sawmilling or other special purposes sufficient to produce 670,000 tons (680,750 tonnes) of green wood chips. During the year ended 30 June 1989, WACAP purchased a large proportion of the the amount allowed under its licence (745,155 tonnes of logs, equivalent to about 650,000 tonnes of woodchips). The company also obtained 102,000 tonnes of sawmill residue in 1988/89.

The company has an approved export licence issued by the Federal Government having a maximum quantity of 750,000 tonnes per annum. Should Whittakers utilise portion of this sawmill residue, to the extent that WACAP needed to replace it, the company could obtain additional woodchips from some of the smaller mills in the south west who do not at present chip their residue. (The volumes quoted above do not balance because chips from residue beyond the export quota have been stockpiled at the Bunbury Port facility.)

Because -

- I have issued a licence to WACAP for the maximum draw from the forest and it has harvested this amount;
- there is a ceiling on the export licence; and
- the export licences already issued to Whittakers and McLeans are confined to chips from sawmill residue;

I can categorically state that the transfer of the licence now requested by Whittakers will not lead to an increase of area of State forest cut over.

As I do not have the same statutory powers to control timber harvesting activities on private property, I am not able to give the same assurance regarding the conversion to woodchips of native vegetation from private property. Nevertheless, the total constraints described above would apply. Also, any clearing of remnant forest on private property is rigidly controlled under individual licences issued by the Commissioner of Soil Conservation, Dr Robertson. I therefore consider that there will be no greater pressure on privately owned native forest as a result of this application than there was previously.

I hope this response clarifies the matter for you. I have taken the liberty of forwarding this response through my Minister, Hon Ian Taylor, MLA.

Yours sincerely



Syd Shea
EXECUTIVE DIRECTOR

13 November 1989

LIBRARY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WESTRALIA SQUARE
141 ST. GEORGES TERRACE, PERTH