

SUBMISSION TO THE PREMIER'S
SUB-COMMITTEE ON PUBLIC
SECTOR REFORM

Department of Conservation and Land Management

December 1993



INTRODUCTION

- The general philosophy and thrust of the recommendations of the McCarrey Report are accepted and endorsed.
- CALM's concern is that the McCarrey recommendations do not go far enough. Without a substantial change in the financial and management constraints the Department is subject to, it will be impossible to obtain the resources necessary to ensure the State's public land and marine estate, and biota, is conserved and managed sustainably.
- If these constraints are not removed, the expansion of existing industries and the development of new industries, based on Western Australia's natural assets, will not occur.
- If these constraints are removed, there is an opportunity to substantially fund the Western Australian public land management 'community service' obligation, indirectly and directly, using the wealth generated from industries based on the State's public land and biota.

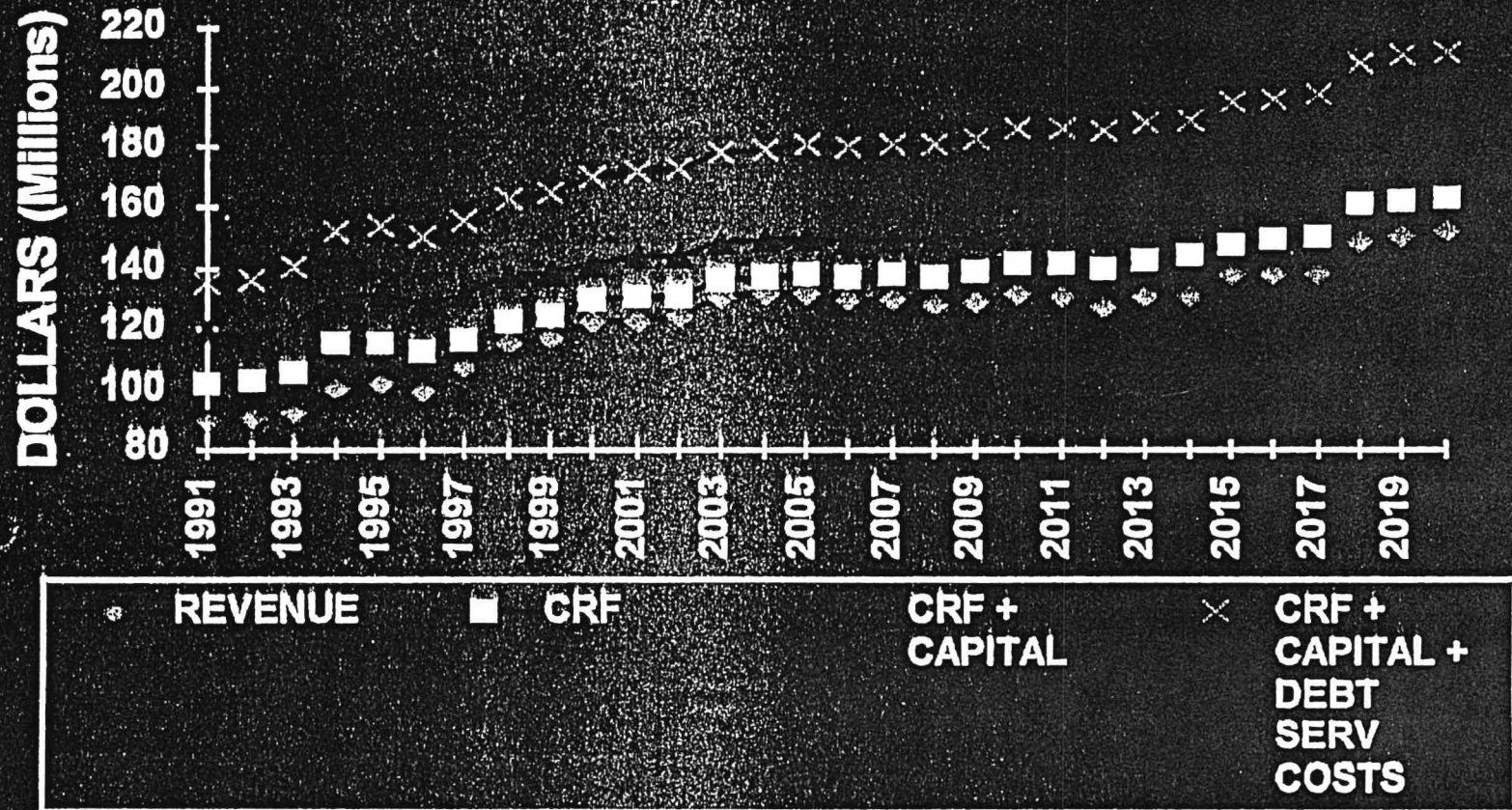
MANAGEMENT AND FINANCIAL PROGNOSIS

- CALM has recognised, since its formation, that it would not be possible to continue to meet the increasing demands for more public land services from the public purse:
 - Over the period 1985-1993, the public land and marine estate managed by CALM has increased by 23 per cent from 16.4 million hectares to 20.1 million hectares
 - Recreational visits have increased by 22 per cent.
 - Community awareness and demands for conservation have increased exponentially.
 - The tree plantation estate has increased by 23,110 hectares.

And over the same period:

- The revenue/expenditure budget ratio has increased from 47 per cent to 78 per cent.
- Staff numbers have reduced from 1438 to 1298.
- Notwithstanding the significant assets CALM manages, the substantial increases in revenue and the reduction of staff, financial modelling (Figure 1) has shown that the Department's financial prognosis is bleak if the same financial arrangements are

Cash Flow Projections for all Programs (Assumes Continuation of Borrowings in the Long Term)



maintained, unless it is assumed that the community is prepared to substantially increase funding of the Department's operations from the consolidated fund.

For example, if it is assumed the *status quo* is maintained, by the year 2020 debt will have risen to \$231 million and debt servicing costs will be \$35.8 million per annum. In real terms, the nett annual operating deficit, which will have to be funded from the consolidated fund in 2020 will be in excess of \$150 million.

AN ALTERNATIVE SCENARIO

- CALM submits it is possible to:
 - Significantly improve the quality of services provided to the community.
 - Significantly improve the conservation status of the State's public and marine land, and plants and animals.
 - Contribute significantly to a major expansion of existing industries, and the creation of new industries based on the State's natural assets.
 - Reduce the current departmental debt incurred as a consequence of commercial operations and asset sales by \$100 million.
 - Achieve these goals by the year 2000 at half the current nett cost to the CRF and capital fund of funding Departmental operations (ie, a saving of \$18 million per annum to Government).
- CALM will achieve this by:
 - The implementation of cost saving and efficiency measures.
 - Significantly increasing revenue from existing commercial activities.
 - Forming partnerships with the private sector to expand existing industries and develop new industries based on the State's public land and marine estate and biota, and CALM's intellectual property and technical expertise.
 - The implementation of a systematic debt reduction program funded by asset sales and profits from commercial forestry operations.
- The Government will need to provide the incentive for this to occur by approving:
 - Retention of all revenue by the Department.

- Assignment to CALM of responsibility for management of the debt related to its commercial activities.
- The allocation of the proceeds of asset sales to debt reduction and the repatriation of that part of the debt incurred on non-commercial activities to the general State debt fund.
- The application of realistic user pay fees for services and products provided.
- Support for the principle that, provided management is capable of ensuring that the State's natural resources are sustained, it is possible to generate wealth from these resources.
- The rapid implementation of workforce reform.
- The development of partnerships with the private sector in ventures which cannot be developed by the private sector without CALM involvement.

FUNCTIONS AND RESPONSIBILITIES OF THE DEPARTMENT

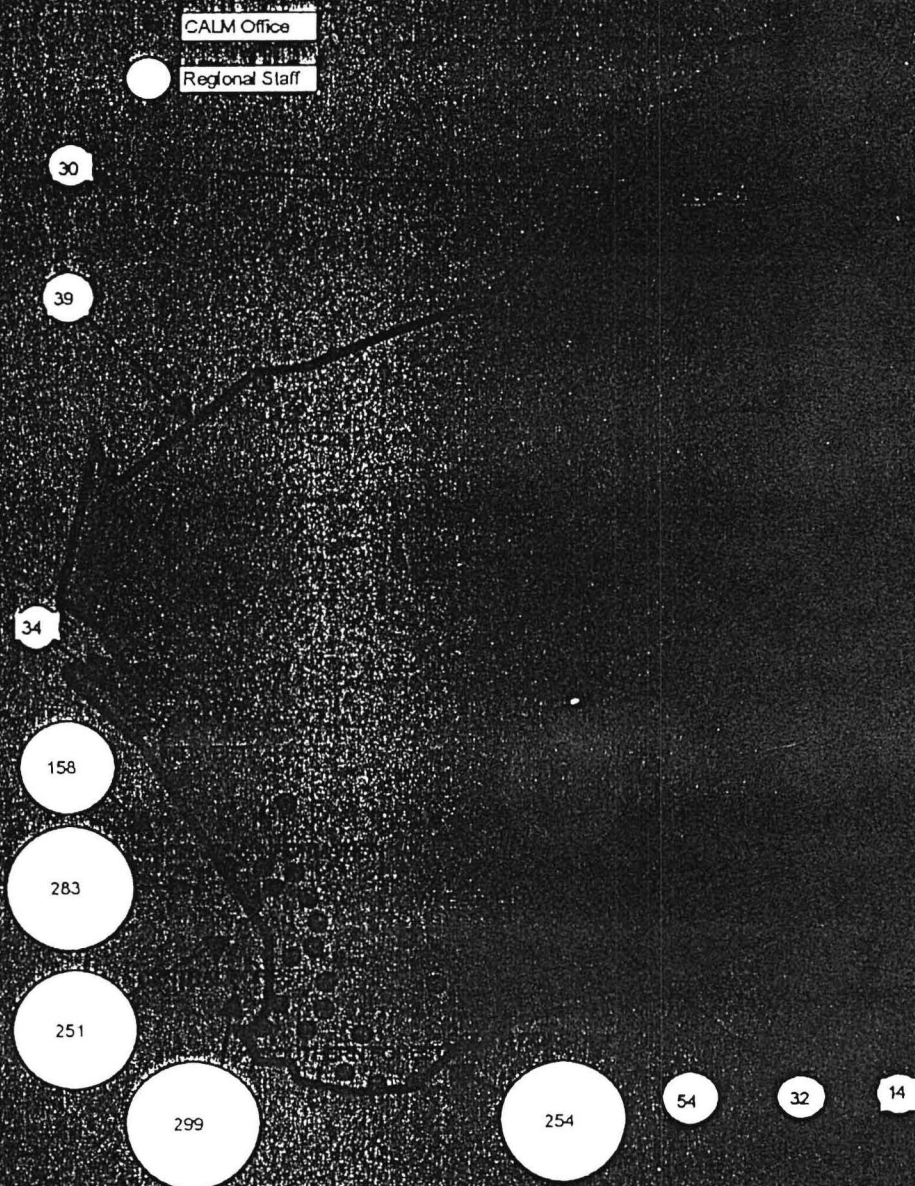
- CALM -
 - Manages over 20 million hectares of land and waters (ie, an area equal to half the size of Japan).
 - Is responsible for conserving all of the State's native flora and fauna.
 - Manages a hardwood and softwood plantation estate of 100,000 hectares.
 - Is responsible for the management of the State's forest industries and industries based on wildflower, wildflowers (harvested from the wild), kangaroos, emus, crocodiles and aviculture.
 - Is a major provider of one of the tourist industry's most significant products.
 - Is responsible for the State's permanent plant collections.
 - Is a major contributor to the State's wildfire protection forces on public land and adjacent private land.
- Regardless of the nature of the agency or agencies responsible for public land management, there will always be a core cost of servicing the public land and marine areas and the State's biota, which will have to be incurred if the basic 'community

service' function associated with public land management and conservation of biota is to be met. The cost of the community service function currently being undertaken by CALM is very significant. For example:

- CALM requires a minimum of 300 staff capable of forming a wildfire fighting force in the south-west. To provide this capacity by itself would cost between \$15 million and \$20 million.
 - To provide the basic infrastructure and service to meet the demand for recreational use of public land (there are four million visits a year to the CALM estate) costs in excess of \$10 million.
 - Basic conservation and rehabilitation of the State's flora and fauna costs in excess of \$10 million.
- The most efficient way of delivering these core community services is via an integrated conservation and land management agency:
 - Integration is efficient because different functions can be performed by the same staff with the same logistical support (eg, forest officers carry out a significant proportion of the same functions as wildlife officers).
 - Integration also provides the opportunity to generate revenue which can be used to cross subsidise the community service functions associated with public land management (eg, funds from the lease of the Matilda Bay Restaurant subsidise the maintenance of the Matilda Bay reserve).
 - Integration partially overcomes the severe problems associated with marked seasonal variations in workload (eg, fire fighters are employed planting trees in winter).
 - Integration permits sharing of necessary but expensive technology, such as Geographic Information Systems, and other information technology and telecommunication facilities.

A preliminary analysis has been undertaken of the cost of providing the same service that CALM provides in two or more agencies to carry out CALM 'functions'. It is estimated that a non-integrated approach to public land management in Western Australia would cost the State \$43 million to establish, and there would be an additional continuing direct cost resulting from the inevitable duplication of services and staff of \$11 million per annum.

CALM STAFF DISTRIBUTIONS



CURRENT STAFFING STRUCTURE, EXPENDITURE AND REVENUE PROFILES OF THE DEPARTMENT

- **Structure**

- The Department has a structure that is designed to achieve the efficiency of integrated management in the field, while at the same time retaining focus and accountability for specific programs.
- The Department has three programs -
 - Forest Resources Management
 - Management for Tourism and Recreation
 - Nature Conservation and Wildlife Management

which are headed up by three directors.

- The service directorates, eg, Science and Information, provide administrative and technical services to program directors and managers in the field.
- Program delivery occurs through regional management groups which are located in the field who report to a General Manager. *

- **Staffing**

- CALM has 1298 staff and probably has a greater diversity of skills than any other organisation in the Western Australian public sector. The staff vary from forest workman to highly specialised scientists. The human resources of the Department, although expensive to fund, also constitute a highly valuable resource which can be accessed by the private sector.
- The distribution of the staff is diagrammatically illustrated in Figure 2.

Note - (i) The Department is very decentralised. (*regionalized*)!
(ii) The predominance of staff in the south-west is, in part, the result of the need to have an effective fire fighting force in this region.

- **Financial profile**

- CALM has one of the most complex budgets in the State Government. This, in part, is because of the diversity of expenditure and revenue sources. The complexity is also the result of the use of archaic terminology and Government financial arrangements.

- The following is a summary of the principal features of CALM's budget (Figures 3, 4 and 5) -
 - CALM is funded from consolidated fund, loan funds and grants from external sources;
 - revenue is derived from a variety of sources, but the bulk is derived from forestry operations:
 - forestry revenue is derived from selling timber and from recouping the costs of logging operations from sawmillers. Note, however, this latter source is expended almost immediately because it is paid to logging contractors:
 - CALM has a large debt and \$18.3 million of the budget is interest payments:
 - The bottom line for Government is that CALM currently has a nett annual deficit which has to be funded from consolidated fund and loan funds of \$37 million.

Debt

- Up until 1976, the Forests Department (which was incorporated into CALM in 1985) was largely self funding. Capital funds were sourced mainly from departmental revenue, but with some general loan fund grants (which by their nature are repayable by Treasury) and loan borrowings from private sources and the Commonwealth under the Commonwealth Softwood Forestry Agreement Acts 1967, 1972 and 1976. A proportion of surplus revenue over cost was paid as a dividend to Treasury. The proportion was one-tenth between 1954 and 1976.
- Since 1976, under Acts of Parliament, all revenue have been paid into CRF. Capital funds has been sourced from general loan fund grants (up until 1984) and loan borrowings. Debt servicing costs and other costs have been funded by Parliamentary appropriations.
- Between 1949 and 1984, the Forests Department received \$43.66 million of general loan funds (repayable by Treasury). The Department also acquired loans from private sources and the Commonwealth, giving it a debt in July 1984 of \$21.95 million actual (or \$35.51 million in 1991 dollars) or 49 per cent of the then CRF budget.
- Since 1984, the debt has escalated from \$21.95 million actual (\$35.51 million in 1991 dollars) to \$121.3 million at present due to the continuing need for capital works and the mobility to use revenue for this purpose. Over the past 10 years a significant amount of loan funds have been used to resource activities which should have been funded from the CRF.

- Fifteen per cent of the Department's debt is due to borrowings for conservation and recreation items (eg, land acquisition) which benefit the public, but generate little revenue.

The current debt situation is -

	Total debt June 1993 \$'000	Current interest \$'000	New nett (1993/94) borrowings \$'000
Forest Resources			
Native hardwood	25.820	3.108	947
Hardwood plantations	3.270	394	730
Softwood plantations	74.210	8.929	3,738
Tourism and Recreation	13,500	1,682	343
Nature Conservation	4,500	1,682	350
TOTAL	121,300	14,660	6,108

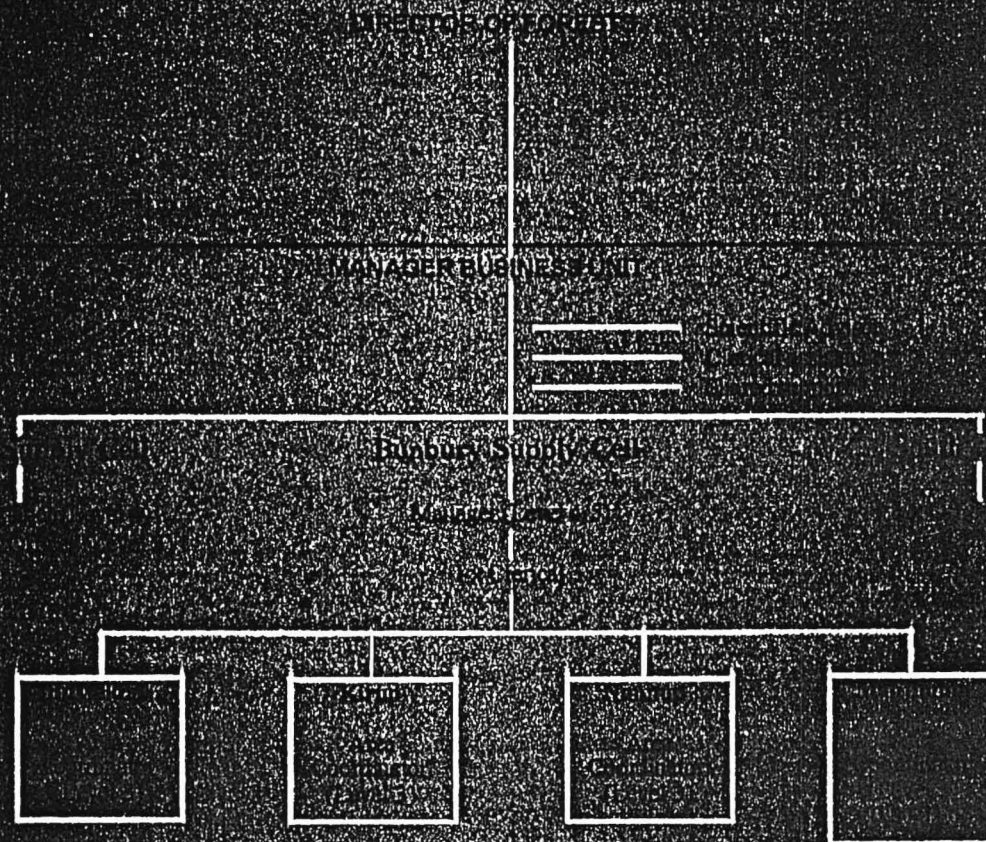
Assets

- Notwithstanding the Department's chronic debt problem, the current assets of the Department are significantly larger than the debt.
- The asset values shown below are estimates only. The true values can only be determined by the market. Only that portion of each asset pertaining to commercial forestry has been valued.

Item	Valuation method	\$ (million)
Native hardwood trees	Liquidation	2,093
Softwood plantation trees	Net present value (5%) OR Liquidation	309 278
Hardwood plantation trees	Net present value (5%) OR Compounded historical cost	23 22
Forest land	Liquidation	2,050
Other buildings, furniture, plant, equipment, vehicles, stores, etc)	Liquidation/replacement	40-60
TOTAL		4,824

SOFTWOOD BUSINESS UNIT

(Establishment, Tending, Harvesting, Sales)



COST SAVING AND EFFICIENCY IMPROVEMENT PROPOSALS

Staff reductions

- Forty six million dollars of CALM's budget is expended on salaries, wages and related costs. Further reductions in the operational budget without significant staff reductions would be counterproductive because existing staff would not have the capacity to use their time efficiently.
- The current staff numbers are 1298.
- As a consequence of the 1993/94 budget, CALM is committed to reduce staff numbers by 75 over the next three years. This will result in savings of \$3 million per annum by the year 1995/96.
- Following a review of staff requirements to meet fire-fighting obligations in the south-west and a review of the health and fitness of staff required to fight wildfires, it has been determined that it would be possible to make 30 wages staff positions redundant. Changes in technology have made a further 10 technical and administrative positions redundant. Consequently, it is proposed to implement a targeted redundancy program which is aimed at achieving an additional redundancies by the end of this financial year. This is in addition to staff reduction of 25 this year which will be achieved by natural attrition.

This will cost \$1.4 million and will result in a full year's saving of \$1.2 million. It is proposed to fund the redundancy from the existing budget.

Restructuring

- The McCarrey Volume 2 Report (p23) recommended that 'Targets for commercialisation should include the commercial timber and plantation operations of the Department of Conservation and Land Management'. McCarrey defines commercialisation as 'an administrative reform that embraces all the principles of corporatisation except the emphasis on competitive neutrality ... The process of commercialisation would involve establishing these sections as semi autonomous business units within their parent agency ... Business units should charge for all services they provide and pay full price for all resources and services they consume, including resources and services provided by the Department in which the commercialised business unit is housed.'

CALM will extend this concept to all commercial operations within the Department. These business units will be discrete, but they will operate within the integrated structure.

- CALM already operates discrete business units (eg, Manjimup Nursery, the Oji/Itochu hardwood plantation project) but these arrangements have not been formalised.

An expert consultant will be engaged by CALM to advise on the functions and operation (specifically accounting procedures) of business units throughout the Department, but each unit will be subject to the following guidelines:

- Business plans will be developed for each unit.
- One person will have ultimate responsibility for the operation of the unit.
- All financial inputs and outputs will be accounted for.
- Where services are employed from other sections of the Department, they will be formally contracted.
- Where services can be provided more efficiently from the private sector, they will be used.

A diagrammatic representation of the business unit which is proposed for commercial softwood operations is shown in Figure 6.

- The current regional and district structure will be reviewed with the assistance of an external consultant to ensure:
 - Duplication is removed.
 - The role of district stations located in the south-west will be reviewed and, if necessary, district offices will be converted to specialist functions.
 - The program functions are efficiently integrated into the operations staff in the field.

Cessation of new softwood plantation estate establishment

- A review of the production capacity of the existing softwood plantations has shown that existing commitments to the industry can be met from the existing estate, provided that areas clearfelled in the existing estate are re-established.
- It is proposed that there be no further funding of 'new' pine plantations from the State's capital budget. This will result in a saving of \$1-2 million per year.
- Given the attractive rate of returns on investments in pine plantations (Appendix 2), it is anticipated that the private sector's funds will be available to fund the expansion of the State's pine plantation estate.

- CALM would undertake establishment and management of 'new' pine plantations, provided they were funded from the private sector under similar arrangements to those which apply to the hardwood plantations being established for Japanese and Korean companies.

INCREASING REVENUE AND RECOUPABLE FUNDS

Commercial activities undertaken by the Department reduce the demand on Government funds by making profits (which can be used to cross-subsidise community service function) and fund a proportion of staff costs which would have had to be paid from the CRF or capital works fund. These projects are particularly valuable because they reduce the unit overhead cost by spreading overhead costs to a wider range of activities.

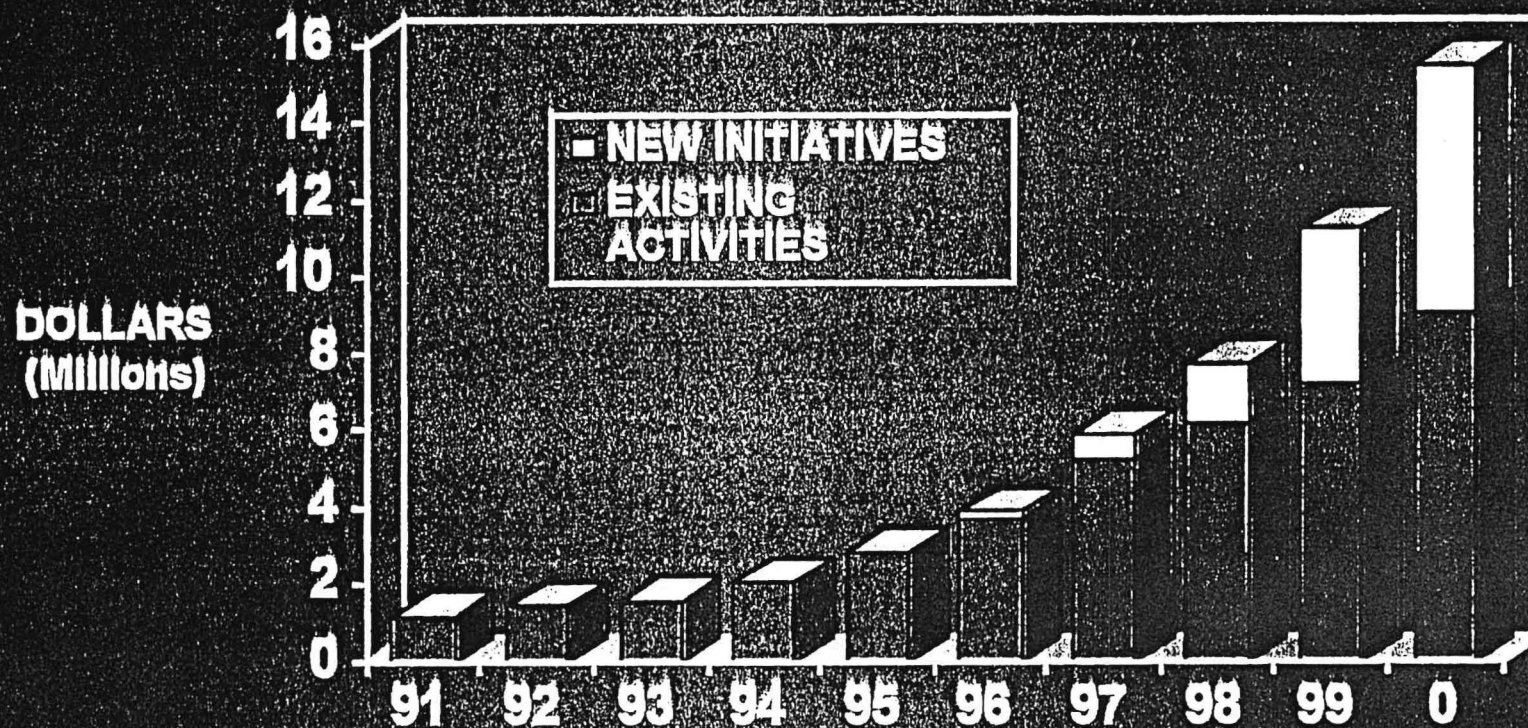
Tourism and recreation

Currently CALM expends \$19.285 million and earns \$1.5 million revenue on this program. Apart from the community service function, this program provides recreation facilities and for the management of lands and waters and the State's biota, which is a major contributor to the tourism industry. Unfortunately, the Commonwealth Government is the major beneficiary of the growth in tourism in this State. Most of the tourist industry's contribution to Government occurs through taxes paid to the Federal Government. The only way by which the State can be directly compensated for its very significant contribution to the tourism industry, as a consequence of funding public land management, is by intersecting a proportion of the tourist dollar where the service is provided by the application of a user fee.

- **Entrance fees.** Entrance fees to recreation areas in national parks and other lands and reserves are only applied to a small proportion of parks. The current entry charges to sites with excellent facilities are unrealistically low (\$5 per car). It is proposed to progressively introduce entrance fees throughout the public land estate where recreation facilities and the services are provided and where collection costs do not exceed return.
- **Camping.** It is proposed that future camping facilities be developed at a rate of five per year in high demand areas throughout the public land estate. The private sector will be invited to tender for licences to develop and manage campsites.
- **Leases.** CALM already leases a number of facilities located in the public land estate. Facilities previously operated by the Department have been progressively transferred to the private sector and the Department is paid a rental fee based on a percentage of gross turnover. Capital improvements revert to the Crown at the end of the lease. For example, the Matilda Bay Restaurant is owned by the Government. At the time of CALM's formation the restaurant was paying \$1,500 per annum for its lease. The current return to the Department is \$120,000 per annum with minimal costs to the Department.

There are a number of other leases on public land managed by CALM which currently yield \$350,000 per year at minimal cost to the Department. It is proposed to actively

TOURISM AND RECREATION REVENUE PROJECTIONS



develop the 'Matilda Bay model' throughout the CALM estate. Two new leases for caravan parks have recently been secured. A further three are being negotiated.

The Department has identified a number of locations within the public land estate which offer the potential for the establishment of significant profitable tourist facilities (Appendix 1). It is proposed that each location be marketed in cooperation with the Tourist Commission and progressively put out to tender over the following six years.

Leases can also incorporate management undertakings by the lessee, which relieves CALM of high cost services which it cannot deliver efficiently. For example, the recently negotiated Yanchep Inn lease, as well as resulting in a \$3 million capital investment, also resulted in CALM being relieved of the cost of maintaining a swimming pool, cave tours, a golf course and a rose garden. In addition, the leaseholders pay 5 per cent of gross turnover as annual rent and will contribute \$1.04 million in facilities for the public off leased areas.

- **Licences.** There are significant opportunities for the generation of revenue from the provision of exclusive licences. For example, there are a number of unique natural tourist attractions which, by their nature, require that limits be placed on access to them, so the attraction can be sustained, eg, whale sharks at Ningaloo. It is proposed to actively locate, develop and promote these natural assets and issue exclusive licences to tourist operators.
- There are a number of additional recreation based commercial activities which have the potential to generate revenue.
- The existing and projected returns from tourism and recreation commercial activities is shown in Figure 7 and Table 1. These figures are based on existing revenue from fees, leases and licences. The new initiations include the additional commercial opportunities for recreational and tourism enterprises listed in Appendix 1.
- **Partnerships.** CALM has already established partnerships with tourist and recreation promoters. Examples include the Aboriginal cultural boat tour at Geikie Gorge, accommodation at Mt Hart Station, and the Landscape Expedition Tours. Partnerships have also been established with the corporate sector, such as the R & I Landscape Visa Card.
- Volunteers contribute to cost savings through expertise and involvement. There are over 1,000 registered volunteers who last year contributed in excess of 40,000 hours of work. It is proposed to increase the volunteer workforce to 4,000 by the year 2000.

Table 1

REVENUE FROM TOURISM AND RECREATION PROGRAM

	90/91	91/92	92/93	Expected 93/94	Expected 94/95	Expected 95/96	Expected 96/97	Expected 97/98	98/99	99/00
S ('000)										
Entrance fees plus annual passes	462	690	708	1180#	1653#	2000=	3000	3200	3300	3750
Leases (tourism)	276	244	248	350	500	700	1000	1300	2000	3000
Leases (sport clubs and recreation)										
Licences - General	3.4	?	6.5	40	60	70	80	90	100	100
Licences - Exclusive	-	-	-	-	100	300	417	642	773	964
Merchandising	-		15	25	50	100	135	200	200	250
Camping	185	236	254	270	300	330	385	500	500	600
Activities (boat tours, cave tours, golf course, boat hire)	285	267	276	130**	130	140	160	210	210	250
Sundry (barbeques, et al)	22	23	32	32	35	35	50	90	90	100
New initiatives						200	650	1200	2500	3500
Total	1.2 m	1.46 m	1.54 m	2.03 m	2.83 m	3.87 m	5.9 m	7.4 m	9.7 m	12.5 m

Improvement in revenue in 1993/94 and subsequent years is subject to Government approval of CALM's proposal to apply entry fees to a wider number of national parks.

** This income will drop because cave tours, boat hire and golf course fees at Yanchep have been relinquished to the Yanchep Inn lessees. (See table above.)

Forest resources

- Currently CALM expends \$104.6 million and earns \$102.4 million revenue from this program.
- *Native hardwood forest commercial operations*
 - These operations currently yield a profit and the State's return on investment is 5 per cent real.
 - The McCarrey Commission noted that the operating cost was high (\$16.7 million).
 - CALM acknowledges that the efficiency and profitability can be improved and proposes -
 - formulation of a discrete business unit to enable costs to be more accurately accountable. (Note, there would be a significant 'community service' cost of managing forests currently utilised for timber production if commercial timber production was ceased, eg, fire protection would have to be maintained at almost the same cost);
 - increased contracting of regeneration and silviculture operations to the privately owned logging sector: ??
 - adoption of an automatic timber price indexing system relating log prices to a basket of retail timber products. (Note, CALM has increased timber prices by 300 per cent for some log categories since its formation).
- *Softwood plantations*
 - This section was subject to detailed analysis by the McCarrey Commission. Consequently, a more detailed analysis of the commercial returns and proposals to improve the profitability of the plantations has been carried out. (Appendices 2 and 3).
 - If CALM's proposals are adopted, it will be possible to eliminate the debt associated with the plantations by the year 2003 and significantly increase the rate of return on the State's investment.
- *Hardwood plantations*
 - During the 1980s, CALM obtained funding from the loan account to establish short rotation eucalypts on cleared agricultural land. The objective was to demonstrate to investors, overseas companies and the farming community that

eucalypts grown for high quality fibre produced for pulp was a profitable crop. Nine thousand hectares of plantations have been established in partnership with farmers.

- The objective has been achieved. Four major Japanese and one Korean company have signed agreements, or are in the process of finalising agreements, which appoint CALM to establish 50,000 hectares of hardwood plantation in the south-west on cleared agriculture land over the next 10 years (Appendix 4).
- The companies have selected CALM in preference to private companies because of its expertise, efficiency and the security they perceive is associated with a public agency.
- The projects are of significant financial benefit to CALM because staff employed on them are paid by the companies (significantly reducing departmental unit overhead costs) and a significant profit factor has been factored into the contracts.

||| 2

- *Eucalyptus oil*

- Over the past several years CALM, in association with Murdoch University, has been researching the potential to develop a commercial perennial crop for the drier <600mm rainfall zone in the south-west.
- Apart from the need to diversify the agricultural production by developing new crops, there is an urgent need to establish high water consuming vegetation to reverse land and water salination.
- Eucalyptus oil can be produced efficiently from Western Australian Mallee eucalypts which originally grew naturally throughout the drier agricultural regions.
- CALM research has demonstrated that by selective breeding it is possible to significantly increase the yield of oils from Mallee eucalypts.
- There is a significant international demand for eucalyptus oil from the pharmaceutical industry. (Australia currently imports eucalyptus oil). However, CALM has identified a potentially much larger market. Eucalyptus oil is an excellent industrial solvent. Because of environmental concerns, many of the solvents which are currently used are being withdrawn over the next three years.

If eucalyptus oil could capture 10 per cent of this market and if eucalyptus oil could be produced efficiently in Western Australia, this market would support

the establishment of one million hectares of Mallee eucalypts in the drier agricultural zones.

- The eucalyptus oil project is at the same stage of development that the hardwood plantation project was eight years ago. The private sector does not have the skills, and it is not prepared to make investments, because the markets have not been established. The market won't be established until Western Australia can demonstrate that it can produce significant quantities of oil.

CALM believes it can provide the 'circuit breaker' required to establish this new industry which, once it achieves a critical mass, will be almost entirely farmer driven.

Nature conservation

- It is the nature of the nature conservation program that the demand for nature conservation (particularly research) is insatiable. The costs are high because specialists are required to undertake the research and the potential to generate revenue is low. The program costs \$22.8 million and yield 'revenue' (principally from Commonwealth grants) of \$4.0 million. *||? our costs not recognised*
- The Science and Information division of CALM is currently being restructured with the aim of achieving greater efficiency and accountability.
- The program is also responsible for the management of several industries, all of which are heavily subsidised by the Government:
 - CALM manages the kangaroo industry at a cost of \$350,000. The revenue from this industry is \$85,000;
 - The fledgling crocodile industry costs \$100,000 and returns \$2,000 to CALM;
 - The native flora industry costs \$350,000 and yields a revenue of \$87,000.
- Subject to legislative change and Government support, it is anticipated that the Wildlife Conservation Act revenue could be increased over 3-5 years as follows:
 - flora industry - \$87,000 (1992/93) to between \$800,000 and \$1.5 million;
 - kangaroo industry - \$85,000 (1992/93) to c. \$150,000;
 - aviculture - \$73,000 (1992/93) to c. \$100,000. plus revenue from programs to introduce new species (eg, naretha bluebonnet), plus increased revenue if there is a relaxation of Commonwealth export policy;

- emu farming - \$24,000 (1992/93) to between \$100,000 and \$200,000 (assuming industry prospers);
- crocodiles - \$2,000 (1992/93) to c. \$30,000 (industry is still in very early stages of building up stocks).

With other miscellaneous improvements, 1992/93 revenue of \$271,000 could be increased to between \$1.7 million and \$2.1 million within five years.

- *Pharmaceuticals from the State's biota*

- This industry, which is not yet established, has the potential to yield very significant returns to the State.
- For example, if the chemical compound which has been extracted from a Western Australian native plant and which has been shown to be highly effective in controlling the HIV virus in *invitro* trials, progresses to become a commercial drug, the State could receive royalties by the year 2000 of \$100 million per annum (Figure 8, Appendix 5).

Reduction of debt burden

- \$18.3 million of CALM's CRF budget is required to meet interest and principal repayments on past debt which totals \$121.3 million.
- It is proposed to introduce a systematic debt reduction program by:
 - Eliminating new borrowings for all CALM activities from the capital fund by 1995/96.
 - Commence a debt repayment program funded from revenue earned on commercial forestry activities.
 - Reduce debt by asset sales. Specifically -
 - it is proposed that the Blackwood Valley softwood plantation estate, including the associated land, which is fee simple land held in the name of Executive Director, be sold. See Appendix 3. The estimated current value of the estate is between \$40-50 million;
 - the existing *Eucalyptus globulus* bluegum estate be sold. Estimated current value \$25 million.
- It is proposed that funds previously borrowed for non-commercial purposes (eg, purchase of conservation lands) be transferred back to the general loan fund and that all further borrowings for non-commercial purposes be funded from the general loan fund.

CONCLUSION

- Conservative scenario - If it is assumed that CALM is allowed to retain revenue and manage its finances, but there are no asset sales and no new industries based on the public land estate and biota. CALM believes it can deliver:
 - A significant improvement in conservation and land and marine management throughout the State. ?
 - commence reduction of the debt from 1996;
 - a major new industry based on hardwood plantations will have been created;
 - reduce the current annual nett drain on taxpayers' funds from \$37 million to \$18 million.
- Optimum scenario - If it is assumed that the proposed asset sales are achieved and that CALM is moderately successful in developing, in partnership with the private sector, the enterprises proposed.

CALM believes it can deliver all of the above and -

- reduce the debt from \$123 million to \$20 million:
- reduce the current annual nett drain on taxpayers' funds to zero
- contribute to the significant expansion of existing industries and create new significant industries based on Western Australia's public land estate and biota

by the year 2000/2001.

By the year 2010, CALM is confident that under either scenario, the Department will be paying significant dividends to the Government.

APPENDIX 1

INDICATIVE LIST POTENTIAL NATURE-BASED COMMERCIAL TOURISM OPPORTUNITIES

Karijini National Park	2 x safari accommodation	Magnificent ancient landscapes with enormous appeal, especially in cultural tourism
Purnululu National Park	2 x safari accommodation	Distinctive beehive formations in ancient landscape combined with rich Aboriginal culture to make this an internationally significant area
Rowley Shoals	Mooring rights	Diving on a coral atoll
Devonian Reef National Park	1 safari camp 1 lodge accommodation	Geikie Gorge, Winjana Gorge and Tunnel Creek
Mitchell Plateau	1 fly drive camp/lodge	Gorges, magnificent waterfalls and rainforest
Walcott Inlet	1 lodge accommodation	Opportunity for world class wilderness lodge
Mt Hart Station	Station house and accommodation	Set between Leopold Range and Walcott Inlet
Dampier Archipelago	1 small resort style facility 1 campground	Accommodation and campground on the islands to create opportunities for recreation and tourism
Montebellos	1 campground	Wildlife
Cape Range	3 lodges	From reef to range
Waterbank (proposed national park)	1 lodge	Access to Roebuck Bay and the many attractions of the Broome area
Peron National Park	Safari camp	Shark Bay has history, sandalwood, stromatolites, dolphins, water sports, fishing
Mt Augustus	Safari camp	WA's answer to Ayers Rock
Kennedy Ranges	Safari camp	Rugged, isolated and difficult to access
Wedge Island area	3 x safari camps	Coastal and wildflower expeditions

The Hills Forest	Commercial products, restaurants, coffee shop/ kiosk, camping areas	Within an hour's drive of some of the most beautiful forest areas in WA
John Forrest National Park	Renegotiate lease on tavern as restaurant and kiosk 1995	The existing tavern is set among some of the best real estate in Perth. The potential for a quality restaurant and associated services is equal to Yanchep National Park
Gooseberry Hill National Park	Restaurant	Set on the edge of the Darling Range with spectacular views of Perth
Wellington Dam	Chalets, camping grounds, kiosk, restaurant	Already a major recreation site and has further potential
Penguin Island	Penguin viewing facility	This is designed to capture international visitors currently by-passing the area
Dwellingup Forest	Caravan park, education, merchandising	Just over an hour from Perth. Dwellingup Forest Heritage Centre will become a major tourist attraction in the next few years
Leschenault Conservation Park	Chalets, 2 campgrounds	Set amongst the Leschenault inlet and overlooking the holiday village of Australind this area boasts great beaches, fishing and bushwalking
Recherche Archipelago	2 chalet developments	Unspoilt coastlines, wild seas and unique flora
Cape Le Grande	1 campground and possible chalets	Unspoilt coastlines, wild seas and unique flora
D'Entrecasteaux National Park	Chalet or lodge development	The south coast adjoining the park has some of the most spectacular scenery in the State but there is limited accommodation and access
Ludlow/Myalup Lewana/Wellington Mills	Rationalise these old settlements into one or two tourist accommodation villages	Let out for private lease
Aerial Tourist Highways	Kimberley South West	Rapid and easy access to natural sites can be achieved by aerial access. By making available airstrips within the CALM estate for use by tour operators, "aerial tourist highways" can be created.

APPENDIX 2

SOFTWOOD PLANTATIONS

- The State has funded the establishment and management of pine plantations for over 40 years. The rationale for this was:
 - It was foreshadowed that eventually the supply of sawlogs from native forest would decline and for 'strategic reasons', it was necessary to ensure that Western Australia was 'self sufficient' in structural timber.
 - The private sector would not make the investment required because of the long time periods involved, the lack of expertise and the perceived (and probably real) risk in investing in an industry which did not have an established manufacturing base.
- The State's investment in pine plantations can be justified while the industry was in a development phase. However, there have been a number of significant developments over the past eight years which require that the industry be looked at from a different perspective and which provide the Government with an opportunity to significantly increase its return on its investment in softwood plantations. These developments also provide the private sector with the opportunity to build a much larger industry in the future than had previously been foreshadowed.

In summary:

- There is now an established softwood plantation estate which can provide a sustained quantity of logs at the levels which are required for large scale manufacturing units.

Timber is an internationally traded commodity and large scale manufacturing units are required to achieve the economics of scale necessary to be competitive.

- The softwood industry has now established world-scale internationally competitive manufacturing units. The State now has a Medium Density Fibreboard Plant, a Particleboard Plant and a large (400,000 cubic metres) softwood sawmill. A sawmill, purchased by Whittakers to process regrowth hardwood logs, has the capacity to process large volumes of smaller diameter softwood into structural sawn timber. There are also a number of smaller processing centres capable of efficiently processing pine logs into a range of other products.
- For the first time in the history of the softwood industry there is a market for all of the products that are generated by a pine plantation as it develops to maturity over a 25-30 year period. (Before the establishment of plants which

could utilise small logs, thinning was carried out uncommercially, ie, trees were felled and left to rot).

- There is a significant increase in local and international demand for softwood products. The former is because of reductions in the hardwood output and the rapid conversion of the Western Australian hardwood industry from the production of structural timber to value added products. The increase in international demand is, in part, caused by withdrawal of native forests from production because of conservation politics and the dramatic reduction of production from tropical forest because of over-exploitation.
 - As a consequence of this change in the world wood fibre supply/demand situation, there have been dramatic increases in the prices of softwood logs in the international market. For example, export softwood log prices have increased by more than 100 per cent in New Zealand over the past 12 months. This is beginning to be reflected in the local market which has been through a severe depression and, as a consequence, pine log prices have increased by 15 per cent.
 - There have been a number of significant technological developments resulting from CALM research, which have dramatically increased the productivity and profitability of pine plantations. For example, tree improvement, by selective breeding and fertiliser technology, have increased productivity by up to 40 per cent and reduced rotation ages by five years.
 - As a consequence of the above technology and the legal and economic mechanisms that CALM has developed, it is now attractive to farmers and investors to establish softwood plantations as a crop integrated into the traditional agricultural practices.
- Current financial profits of softwood plantations:
 - The operation currently has a nett current deficit of \$16.8 million. A significant proportion of this is attributed to interest repayments.
 - The current present value of the plantations depends on the discounting factor chosen and the assumptions that are made about future costs and log prices.

Using 1992 prices, the nett present value of the plantations is \$169 million, assuming a discount rate of 12.5 per cent and \$303 million assuming a discount rate of 5 per cent.
 - With the permission of Commissioner McKinnon, CALM obtained the analysis of the financial projection for the softwood plantations proposed by the financial consultant to the Commission, Mr Brian Ray. The projection of cost and revenue projection and the debt projection by Mr Ray are shown in

Figures 9 and 10. CALM is generally in agreement with these projections. They differ only marginally from CALM's own projections based on a similar data set.

- Changing the financial profile - Notwithstanding the large debt and the prolonged negative cashflow associated with the State's softwood plantations, they are significant assets and a new industry, based on them, has been created. CALM, however, acknowledges that, given the State's current financial situation, the existing financial prognosis is not satisfactory. Consequently, CALM has developed a strategy to improve the financial performance of those softwood operations, which will reduce the debt and improve the cash profile significantly, while still maintaining the viability of the softwood industry.

It is proposed :

- Cessation of State funding of new plantations. There is no longer any valid reason why the private sector should not fund future expansions of the softwood estate. If the softwood plantations are not sufficiently profitable to invest in, they should not be established.
- Further investment by the State in the plantations should be focused on improving the productivity of the existing plantations. This can be achieved by the implementation of optimum fertiliser regimes. CALM research over the past five years has shown that growth rates can be increased by up to 40 per cent at all stages of plantation development by the implementation of appropriate fertiliser regimes.
- Reduction of CALM managed costs, principally by staff reduction and the removal of any 'community service' costs carried by the plantation. This will be achieved by rigorous application of business unit principles.

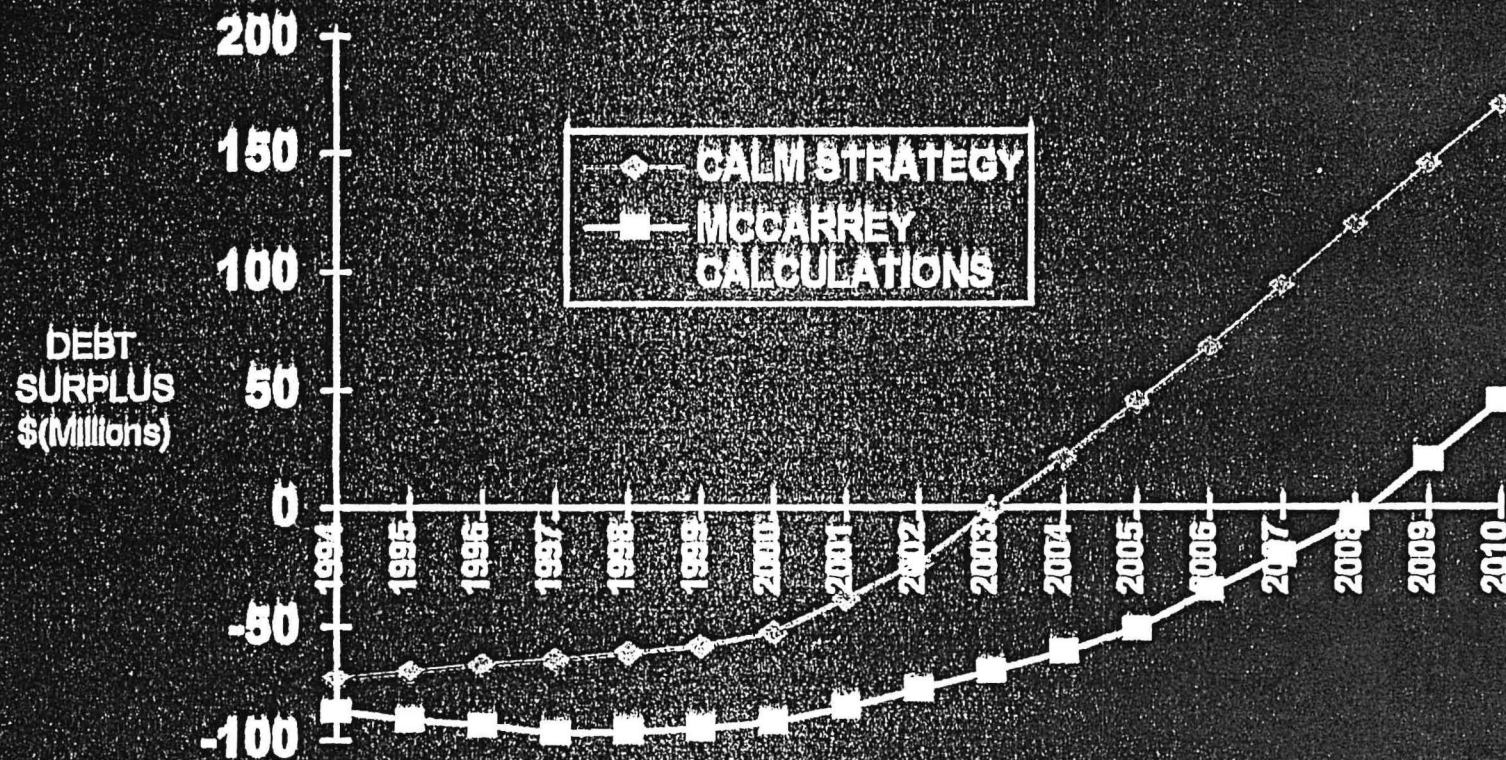
*if wood control
sail damage*

Where management costs cannot be delivered by CALM as efficiently as the private sector, the operation will be contracted to the private sector.

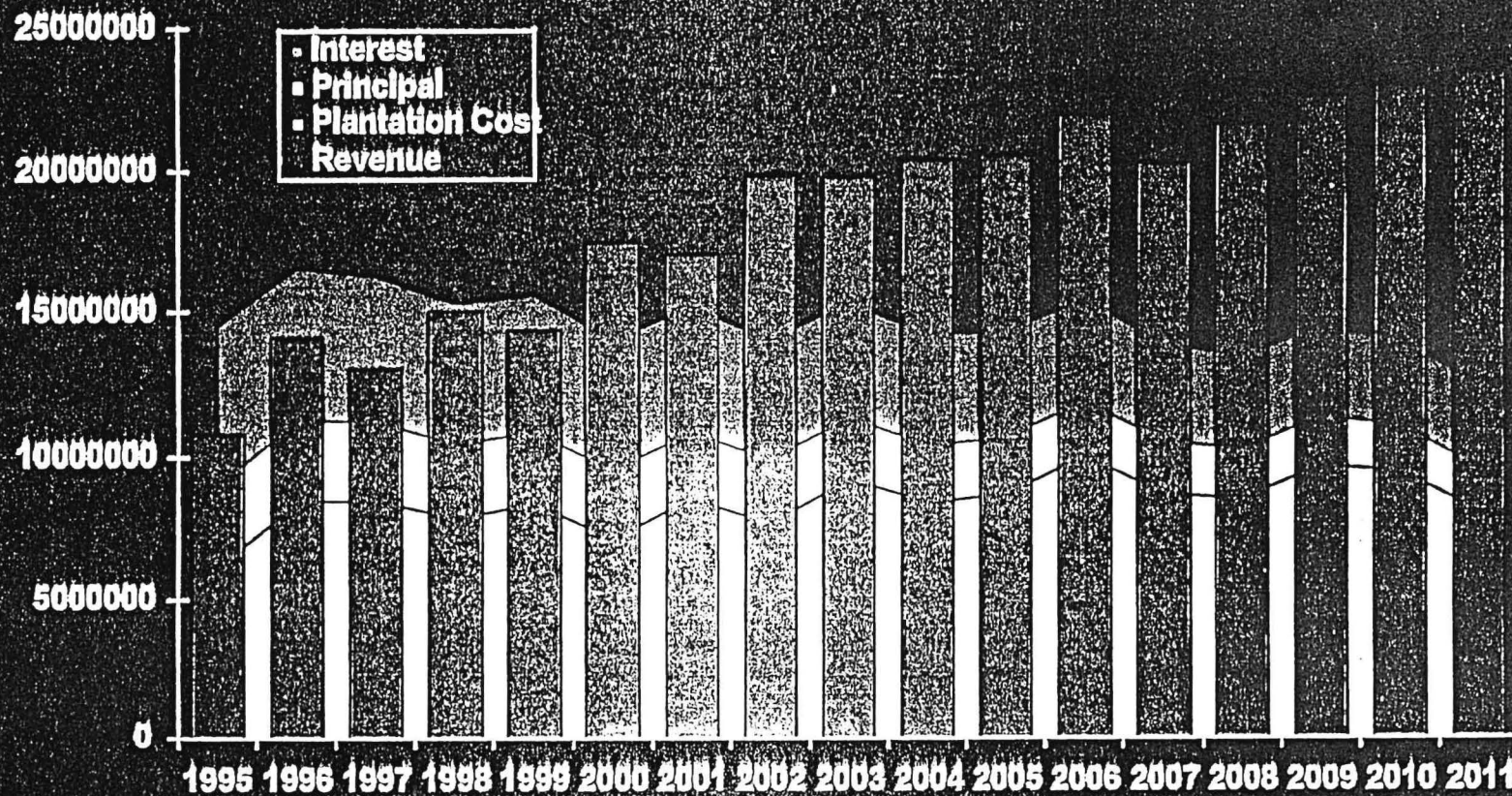
- Harvest rates will be increased to the maximum the market can buy, while ensuring existing and long-term sales commitments are not comprised.
- Pine log prices will be set according to an index determined by the price of a basket of 'end products'.
- The debt and revenue/cost projections which will occur if the above proposals are accepted are shown in Figures 9 and 11. (Note, these projections incorporate the recent 15 per cent increase and assume an annual price increase of 10 per cent to the year 2000).

PINE OPERATIONS - DEBT STUDIES

(CALM Strategy Assumes 10% Stumpage Increase)



PINE PROGRAM WITH CONSTANT STUMPAGES



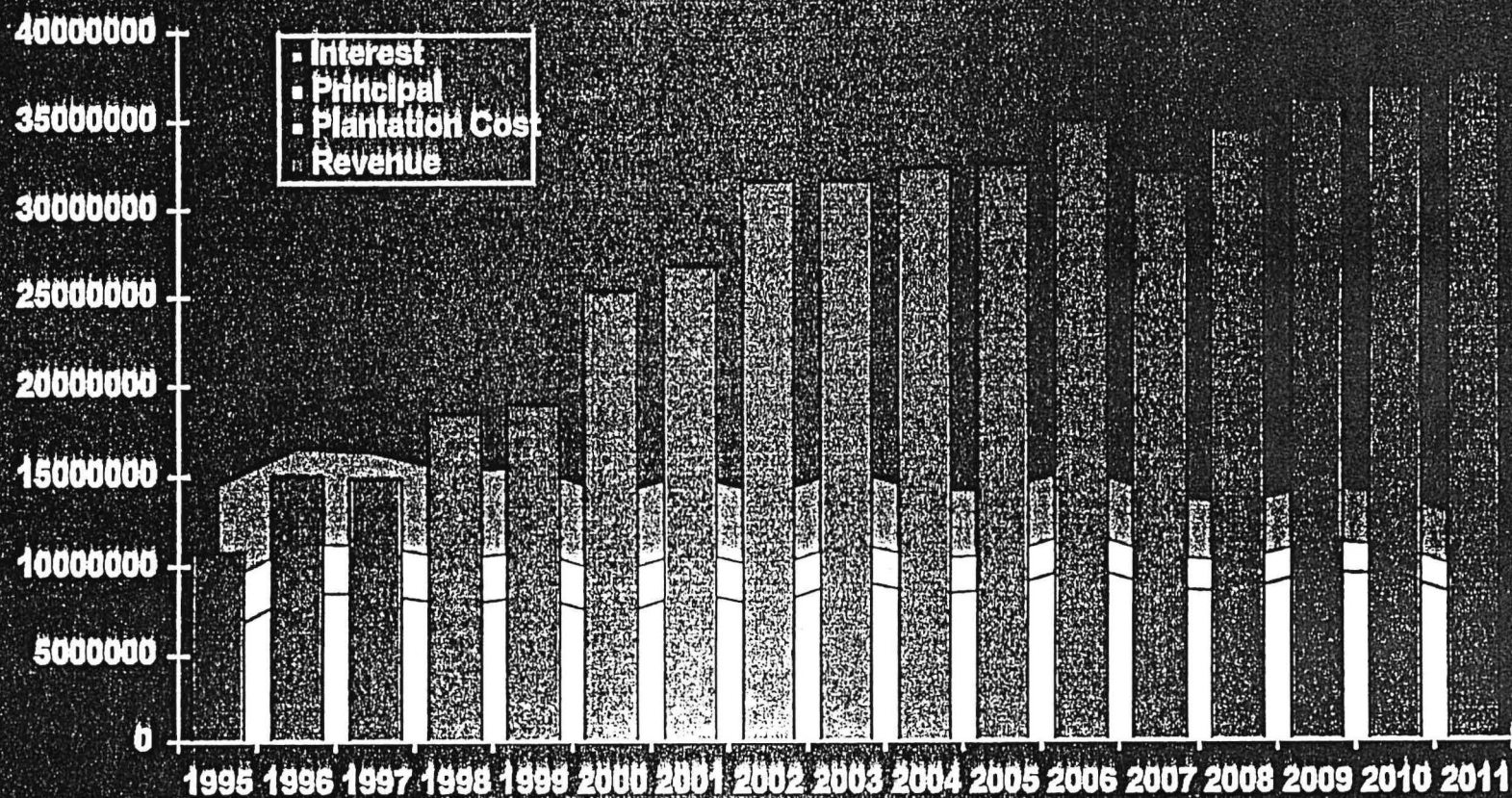
- Privatisation vs commercialisation - CALM endorses the McCarrey Commission's recommendation that the softwood operations within CALM should be commercialised. Complete privatisation is attractive because of the immediate capital gains, but has the following disadvantages:
 - The State softwood estate is distributed throughout the south-west, occurs on a variety of land tenures which would require legislation to change, is commonly embedded within native forest and, in the case of the Gnangara Plantations, performs a vital community service - groundwater protection.
 - The cost of providing the management service to the plantations required by a private company without any infrastructure would be very high. For example, most of the management is of a seasonal nature. CALM has a workforce in place adjacent to the plantations which can be employed on other land management management functions when it is not required to service the plantations. Providing the necessary fire protection for the plantations, in the form of a single dedicated function, would be very high.
 - Conversely, the opportunity to use the CALM workforce to carry out pine establishment and establishment at competitive rates, offsets the cost of providing the 'community service' provided by CALM (eg, fire fighting) in the south-west.

APPENDIX 3

REALISATION OF THE BLACKWOOD VALLEY SOFTWOOD PLANTATION ESTATE

- The Blackwood Valley Softwood Estate, of 7,000 hectares, was principally established from 1956-1980, primarily on formerly privately owned farmland which was purchased by the Forests Department.
- Most of the land is held in fee simple in the name of the Executive Director.
- The current present value of the timber resource calculated using discounted revenue and costs (discount rate 5 per cent) is between \$40-50 million.
- The value of the land (1991 valuation) is estimated to be between \$12-15 million.
- The Blackwood Estate has been a successful venture, but it is proposed that the area not be replanted with pine after clearfelling because:
 - Land values have increased dramatically since the land was originally purchased because of the demand for hobby farms and tourist ventures in the Blackwood Valley, ie. alternative land uses which return a higher yield on investments are now competing with pine plantations.
 - The land is highly productive, but because it is located in a dissected river valley which has steep slopes, logging and management costs are high.
 - There is local community opposition to the existence and re-establishment of pine plantations in the valley.
 - As a consequence of significant technological advances (Appendix 2), it is possible to grow pine trees at rates equivalent to those growing in the Blackwood Valley on coastal plain sites. These sites are closer to the processing centres, and because they are on flat terrain, logging and management costs are significantly lower.
- It is proposed to sell the existing Blackwood plantations within the next two years under the following arrangements:
 - The existing management to be continued by CALM (Appendix 2).
 - Existing sales contracts with Western Australian timber companies will be honoured. (Note that the State's pine log resource is fully committed, under sales contracts, to the year 2010).

PINE PROGRAM WITH 10% INCREASE IN STUMPAGES



- The price of logs to be determined by application of the current indexing formula. (Note: The pine log prices are related to a basket of finished retail pine products. The return from pine logs has increased 15 per cent in response to this indexing system in the last 12 months).
- The buyer will be able to sell or develop the land on completion of the final harvest. Final harvesting will commence in 1994 and be completed in 2005.
- It is proposed that a financial consultant be employed to use CALM economists and forest planners to develop a comprehensive prospectus for consideration by Cabinet.
- Preliminary (confidential) enquiries indicate that the Blackwood Valley Estate could be an attractive investment prospect for an institutional investor. eg, superannuation funds.

APPENDIX 4

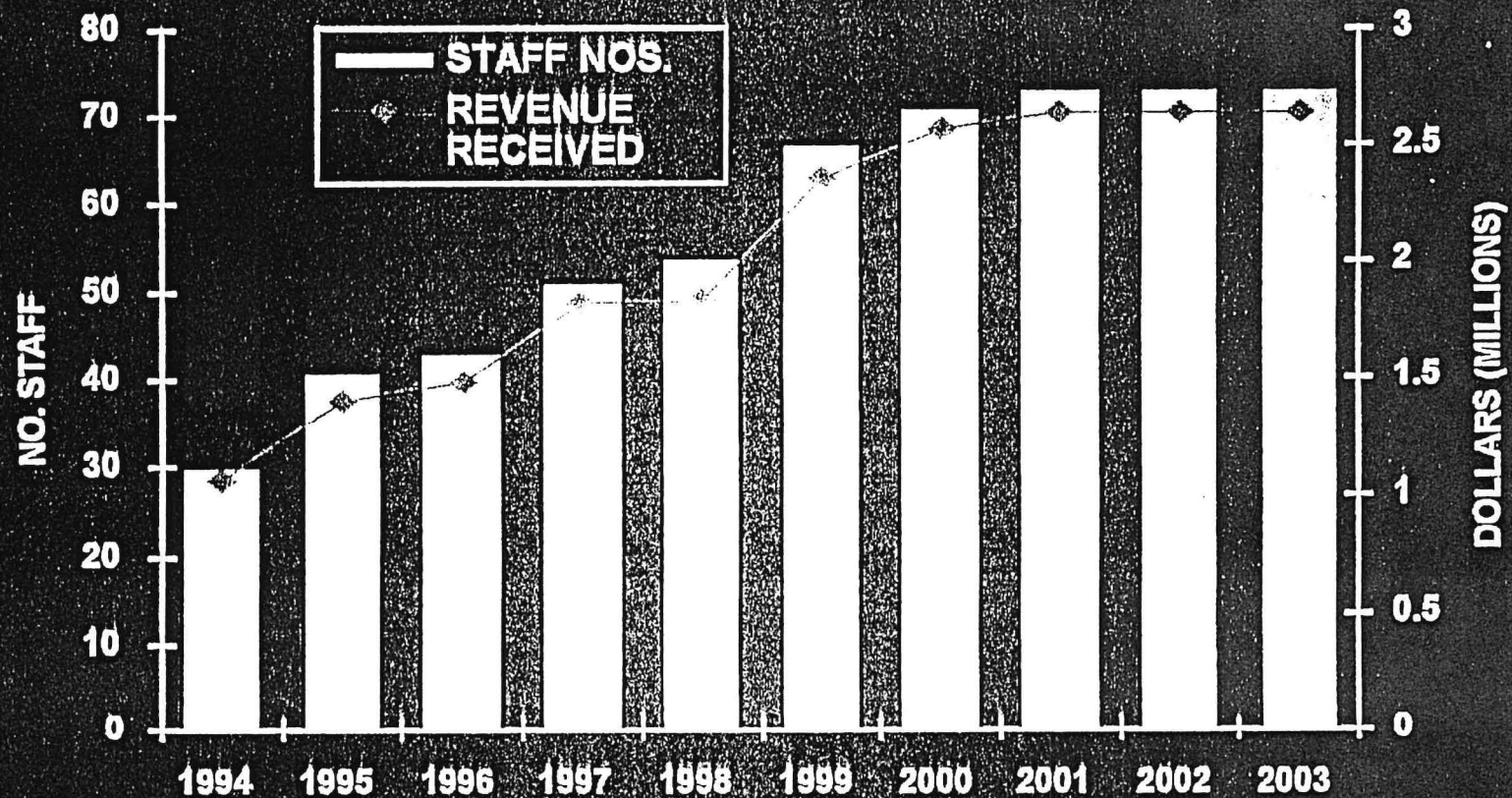
CALM'S COMMERCIAL HARDWOOD PLANTATION AGENCY AGREEMENTS WITH AFFORESTATION COMPANIES

- Following extensive negotiations between CALM, the Department of Resources Development, the Department of Commerce and Trade, the Ministry of Justice and numerous Japanese and Korean companies, CALM has secured agency agreements to establish and tend hardwood plantations on behalf of numerous joint venture companies. The authority to enter such agreements was given by Cabinet on 25 February 1993.
- All plantations established under the agency agreements will be located on previously cleared agricultural land throughout the south-west. It is expected that fifty thousand hectares will be established by CALM during the next decade resulting in a total investment of \$A180,000,000 by the principal companies. 3600\$/ha
- Each agency agreement (the Deed of Agency and Indemnity) ensures that:
 - All expenditure, costs and charges, inclusive of management fees, are borne by the principal companies.
 - CALM and the State are indemnified against any action against the agent except in cases of negligence on the agent's behalf.
- The obligations of the agent, specified in each agreement, are undertaken by autonomous business units within CALM (Figure 12). One business unit services each agency agreement. Each business unit is responsible and accountable for the following:
 - The performance of specific works to meet a documented set of quality criteria.
 - The regular (quarterly) reporting to the principal of all works performed by the agent.
 - The keeping of a set of accounts which are separate from the accounts resulting from the other activities of the Executive Director.
 - Invoicing the companies for all expenditures, costs and charges on a monthly basis.
 - The establishment of legal contracts between the principal companies and landowners.

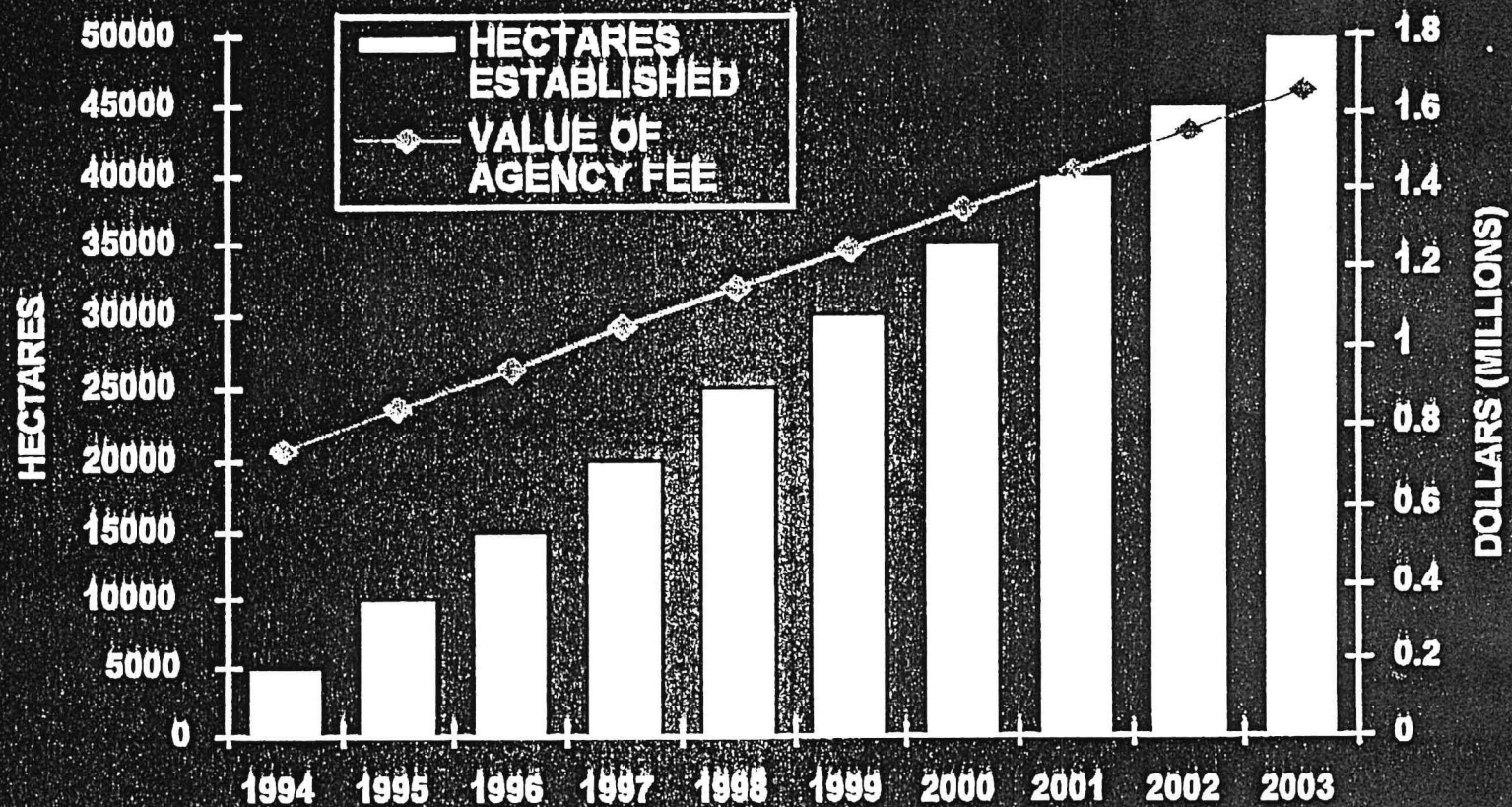
- The accounts of each business unit are maintained on an accrual accounting basis. The use of cost accounting resulted in an inconsistency between the agents and principals, who use the accrual methodology exclusively. So as to maintain consistency between the public and private sectors, all business units recognise expenditure and revenues on an accrual basis using generally accepted accounting principles (GAAP).
- All CALM staff and wages personnel comprising each business unit are fully funded by the principal companies, inclusive of superannuation, workers' compensation, leave loadings and overhead charges and costs. All staff comprising the business units are drawn from the existing CALM workforce truncating the need for retrenchment or redeployment to meet departmental staffing level policy. The combined numbers of personnel and the projected value of revenues received for staffing during the term of the agency agreements are given in Figure 13. Total revenues to be received by CALM for staff total \$20,485,590 over the next decade. Revenues are expressed in 1993 dollar terms.
- The vehicle fleet used by the business units is fully funded by the principal companies, relieving CALM of some of the burden of fleet management. The fleet build-up and revenues received for the fleet running and maintenance is shown in Figure 14. Total revenues to be received by CALM for fleet management total \$2,789,090 over the next decade. Revenues are expressed in 1993 dollar terms.
- In addition to receiving reimbursement for all expenditures and charges CALM receives an agency fee for undertaking its role as agent. The agency fee is linked directly to the number of hectares established. The annual value of the agency fee over the duration of the agency is given in Figure 15. Total revenues received by CALM for management fees total \$12,000,000 over the next decade. Revenues are expressed in 1993 dollar terms.
- During the term of the agency agreements the majority of the \$180,000,000 [\$139,500,000 (77.5%)] investment from the principal companies will be received by the private sector and landowners; \$67,500,000 (37.5%) will go directly to subcontractors while \$72,000,000 (40%) will be received by landowners as land rents. As such, CALM's agency may be viewed as conduits through which foreign investment flows, while concurrently benefiting the Department through the provision of revenue.
- After the first decade and at the completion of CALM's agency agreements harvesting will commence. All principal companies aim to export their timber in semi-processed form. At today's market prices for similar produce, the combined worth of exports from products stemming directly from the agency agreements totals \$95,000,000 annually.

or 5000 ha/yr x 50,000?
 \$20000/ha?
- At the completion of the agency agreements, and at the commencement of the harvesting, processing and export phase of the projects, the companies will expend \$64,625,000 annually, most of which passes directly to the private sector through the form of subcontracts.

The Staff Employed and the Revenues Received from the Principal Companies for Staff over the Duration of the Agency Agreements



The Number of Hectares Established and the Value of CALM's Agency Fee



- In addition to the significant fiscal and social advantages of CALM's agency agreements rewarding both the public and private sectors, significant environmental advantages stem from the establishment of a plantation estate of this scale. Because all plantations are established on cleared agricultural land, the following environmental benefits are gained:
 - The reduction of water tables and the arrest and reversal of salinity.
 - Improved water quality.
 - Reduction of fertiliser runoff with its subsequent problems of eutrophication.
 - The protection of remnant vegetation.
 - The prevention of erosion.

If left unaddressed, all of the abovementioned landcare problems charge the State with an intangible liability. CALM's agency agreements provide a mechanism whereby such issues are addressed at no cost to the State.

APPENDIX 5

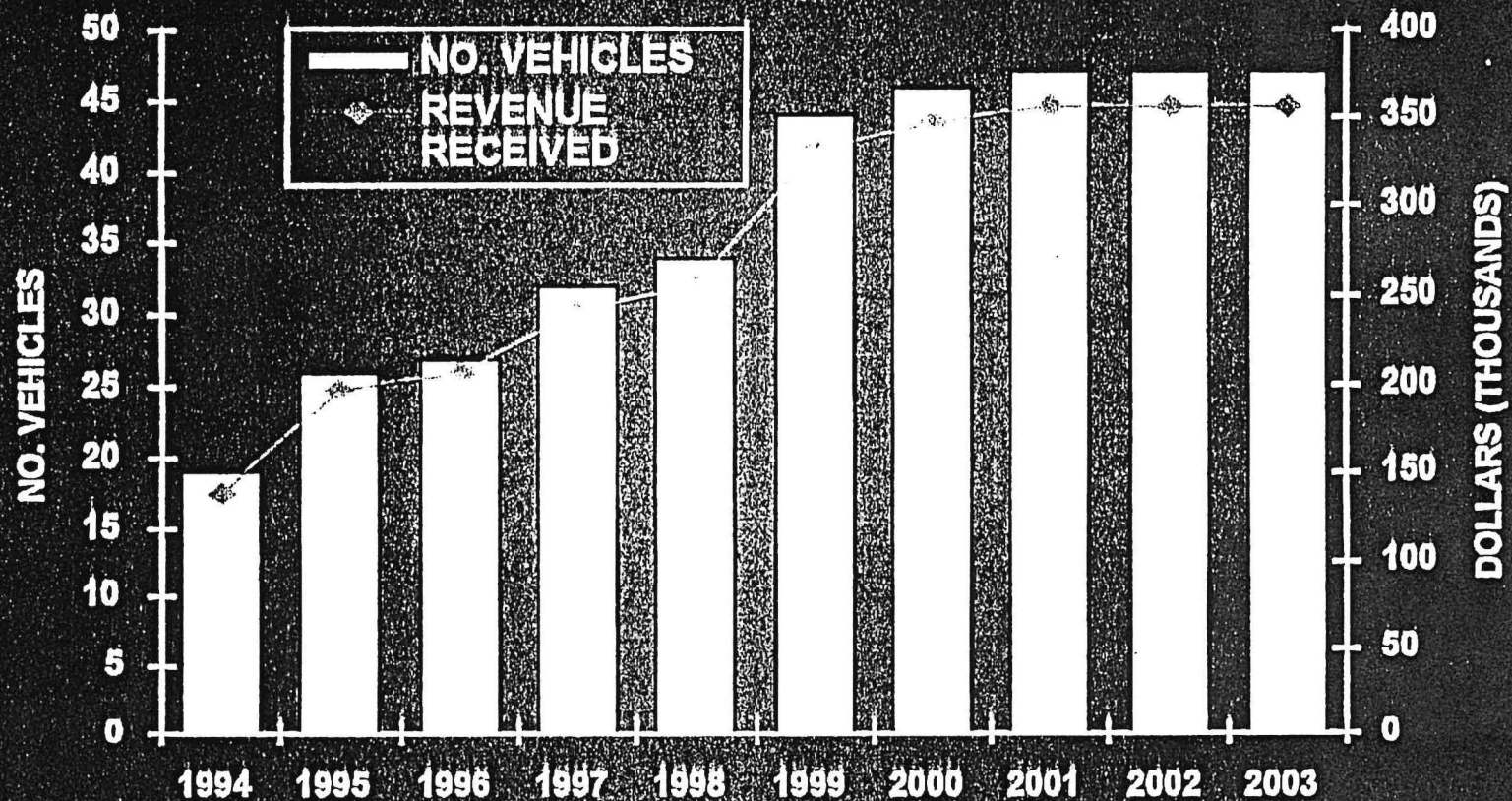
CALM's COMMERCIAL PARTNERSHIP WITH AMRAD

- Following extensive consultation between CALM and the Department of Commerce and Trade, and with Cabinet approval, the Australian pharmaceutical company, AMRAD, was chosen to facilitate the development of the anti-HIV compound conocurvone that had been extracted from a Western Australian species of *Conospermum*, and patented by the US National Cancer Institute.
- CALM has established a Research and Development Consortium to optimise the pharmaceutical potential of WA's biota. The Consortium, which now comprises some 30 WA scientists, has made significant progress in extending our understanding of the nature and bioactivity of conocurvone, its location and concentration in the target plant species and has developed a novel and improved method of extraction. These discoveries have enabled CALM to register six provisional patents in the past six months.
- The research and development agreement between CALM and AMRAD aims to ensure that:
 - The production of conocurvone is progressing rapidly, whilst the plant resource from which the drug is to be obtained is protected and conserved.
 - Cost-recovery funding is provided by AMRAD to resource CALM's Research and Development Consortium to develop conocurvone to a marketable pharmaceutical product.
 - Research funding is provided by AMRAD (up to \$5.75 million over the period of the compound's development) to ensure that other WA plant species, with potential pharmaceutical properties, are protected, evaluated and developed.
 - Significant royalties (5 per cent of the value of net sales) are paid to the community of Western Australia from the sales of developed pharmaceutical products.
 - WA establishes, at no cost to the WA community, the horticultural, extraction, manufacturing and distribution facilities needed to develop a pharmaceutical infrastructure in Western Australia.
- The Government has introduced legislation to more clearly affirm the State's sovereignty and intellectual property rights in its biota. The successful program to develop the anti-HIV compound *conocurvone* is a direct result of the WA Government's determination to enforce its property rights in its biological resources for the benefit of the Western Australian community and to ensure that the State's biological resources are conserved and protected.

- CALM is now establishing the infrastructure required to ensure that the WA Government receives an appropriate commercial return from the sustainably utilised development of our State's biota. It is expected that this initiative will provide increased employment opportunities in Western Australia and will help overcome WA's reliance on international and interstate technologies.
- Other benefits (at no cost to Treasury) include:
 - Systematic screening of the land, freshwater and marine biota of the state for medically-useful products.
 - Complete documentation and discrimination of the State's biota.
 - Establishment of an interactive computerised database of the State's biota.
- It is proposed to establish an integrated Biodiversity Business Unit within CALM, in which voucher specimens of all WA species are held for scientific study and to resource the pharmaceutical and horticultural development of the State's biota.

*philosophy?
protect...*

The Number of Vehicles Used and the Revenues Received from the Principal Companies over the Duration of the Agency Agreements



HARDWOOD PLANTATION BUSINESS UNIT

(Establishment, Tending, Harvesting, Sales)

