







Rainbow Trail - Pemberton (1998), 64 year old karri



















 Bunnings
Premium
Hardwood

 Bunnings
Premium
Hardwood

A PRODUCER OF SELECT HARDWOOD AND PLANTATION
FROM SUSTAINABLY MANAGED WESTERN AUSTRALIAN FORESTS

 Bunnings
Premium
Hardwood



















**THE
AUSTRALIAN**

**WA FOREST
AGREEMENT
MAKES
HISTORY**

The Potential for Forests and Forests Industries in the New Millenium

Presentation by

Dr Syd Shea
Executive Director
Department of CALM

to the
Leschenaultia Hoo Hoo Club

23 March 1999



**THE
AUSTRALIAN**

**WA FOREST
AGREEMENT
MAKES
HISTORY**

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The West Australian

PERTH FRIDAY FEBRUARY 7 1992

All can gain in forests plan

THE reaction of the timber industry and conservationists to the State Government's new strategy for WA forests shows how hard it has become to find consensus in the management of the state's natural resources.

Both sides criticised the plan — but for opposite reasons. The Forest Industries Federation said the proposal missed the opportunity to expand the timber industry, while the WA Conservation Council bemoaned that there would be no reduction in the amount of timber cut from the forests.

Whether they realise it or not, such stereotyped responses from vested interest groups simply reinforce the perception that economic exploitation of the forests and conservation are mutually exclusive and that the timber industry and the environment movement cannot co-exist. It is disappointing that both sides, in their efforts to score public relations points at every turn, ignore their common ground — that without healthy forests neither can benefit in the long term.

The Conservation and Land Management Department's review of WA forests is a commendable attempt to balance industry demands with sensible conservation measures. The associated agreement between CALM and the Australian Heritage Commission also has potential to prevent conflict between agencies at federal and state level and to end the piecemeal approach to the listing of areas in the national estate.

The addition of 124,000 hectares of forest to conservation reserves in the South West will protect further big areas of woodland and preserve the natural habitat of many animal and plant species. It will also increase the area available for other uses, including education, recreation and those associated with tourism.

Changes proposed by the review to timber harvesting operations are also welcome. The retention of more old trees in areas earmarked for cutting and the reduced size of cutting zones should help retain more of the natural character of the forests.

But the review is not all bad news for the timber industry which, through annual sales turnover of \$650 million and the provision of up to 24,000 jobs, makes an important contribution to the state economy.

The identification of areas available for logging should enable the industry to plan future operations with confidence. The review's confirmation that more timber is available than had previously been established should improve the prospect of continued investment in the industry.

“The Conservation and Land Management Department’s review of WA forests is a commendable attempt to balance industry measures. The associated agreement between CALM and the Australian Heritage Commission also has potential to prevent conflict between agencies at federal and state level and to end the piecemeal approach to the listing of areas in the national estate.”

The Current Reserve System

1,000,000 hectare reserves = 46% of Karri Forest
= 35% of Jarrah Forest

203,000 hectares of Old Growth Forest Reserves = 58.4%

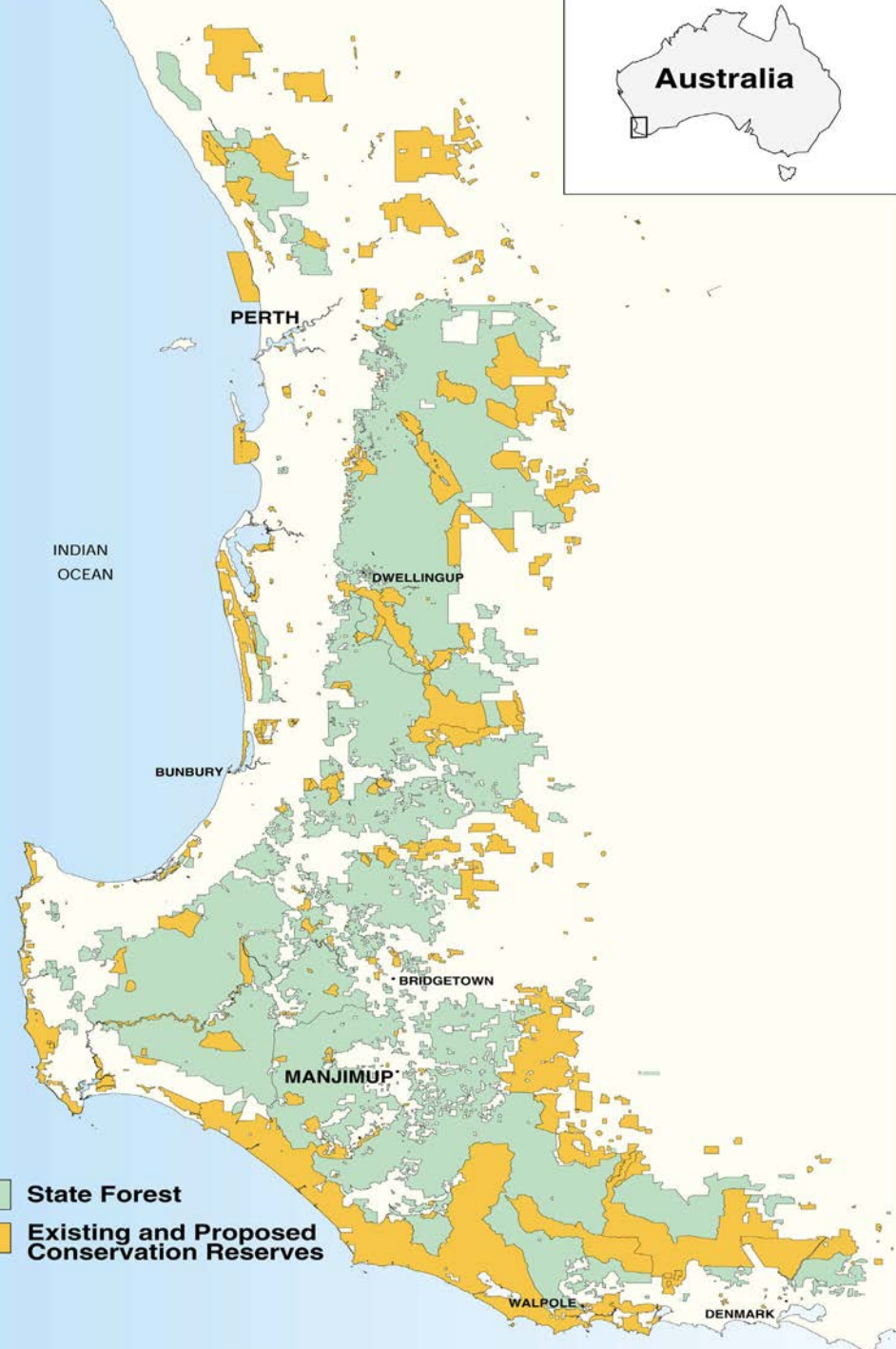
46,000 hectares of Old Growth Karri Forest Reserves = 72%

148,000 hectares of Old Growth Jarrah Forest Reserves = 54%



Australia

-  **State Forest**
-  **Existing and Proposed Conservation Reserves**



PERTH

INDIAN OCEAN

DWELLINGUP

BUNBURY

BRIDGETOWN

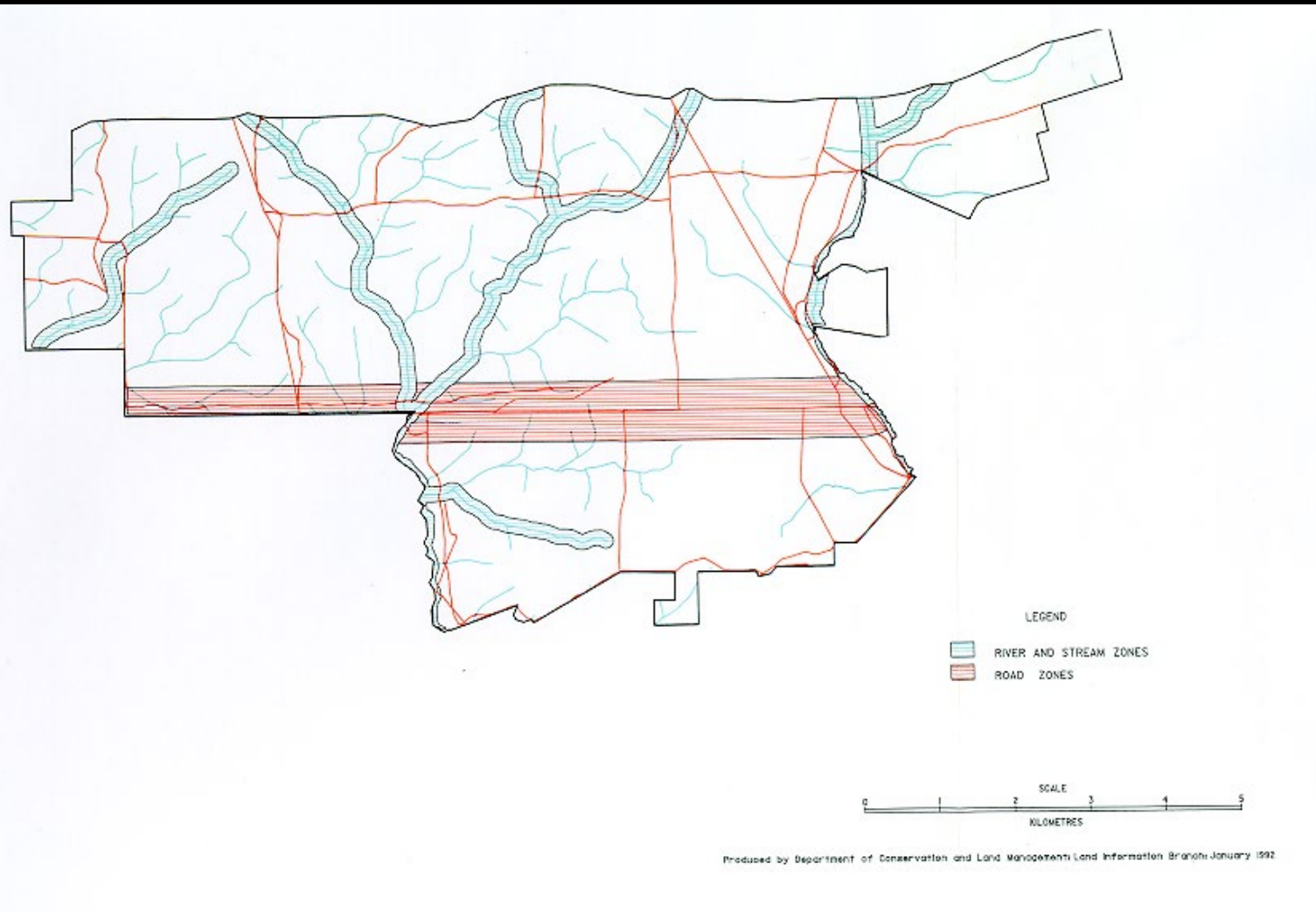
MANJIMUP

WALPOLE

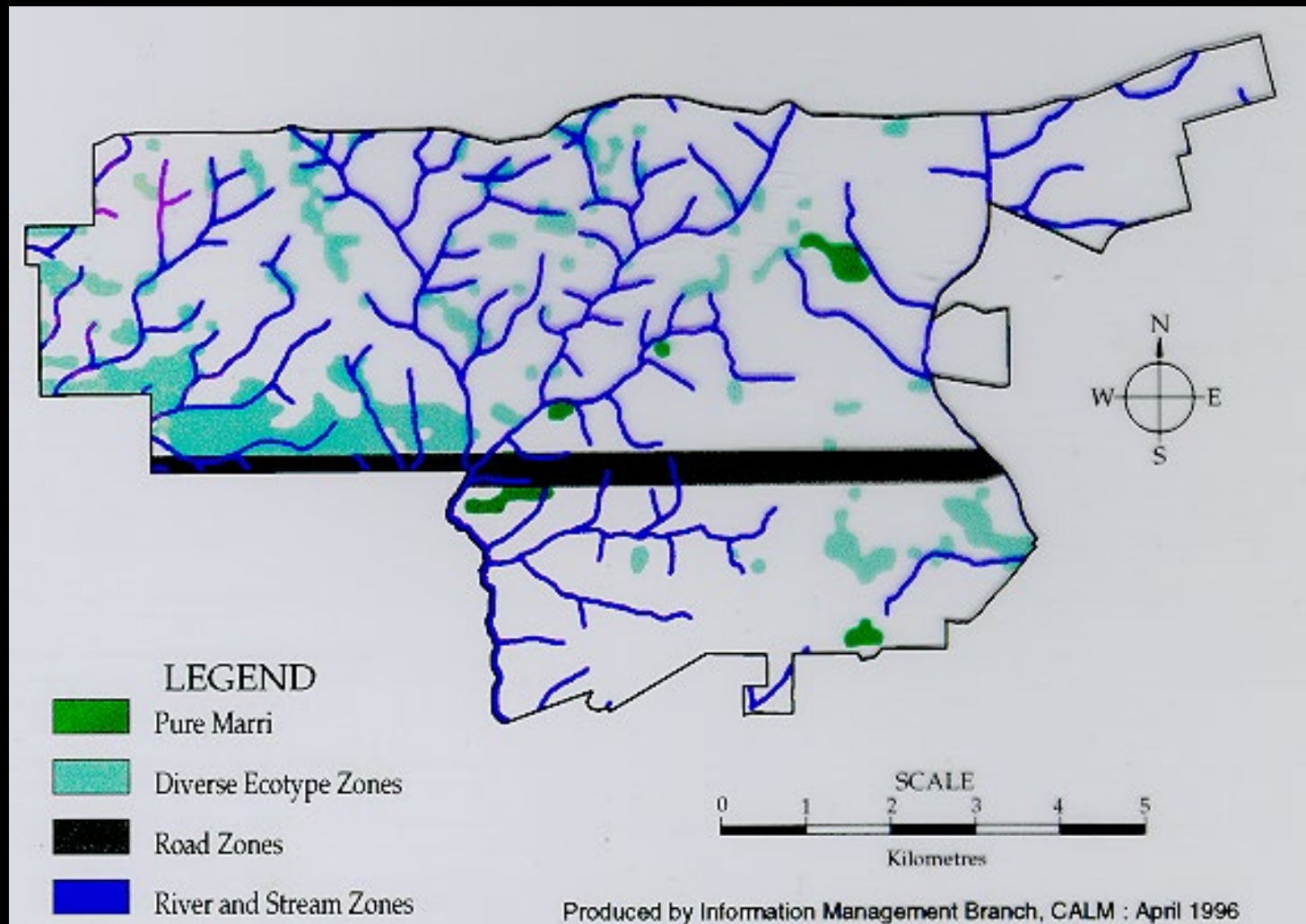
DENMARK



Distribution of Road, River and Stream Zones, Jane Forest Block, Pemberton District prior to 1994

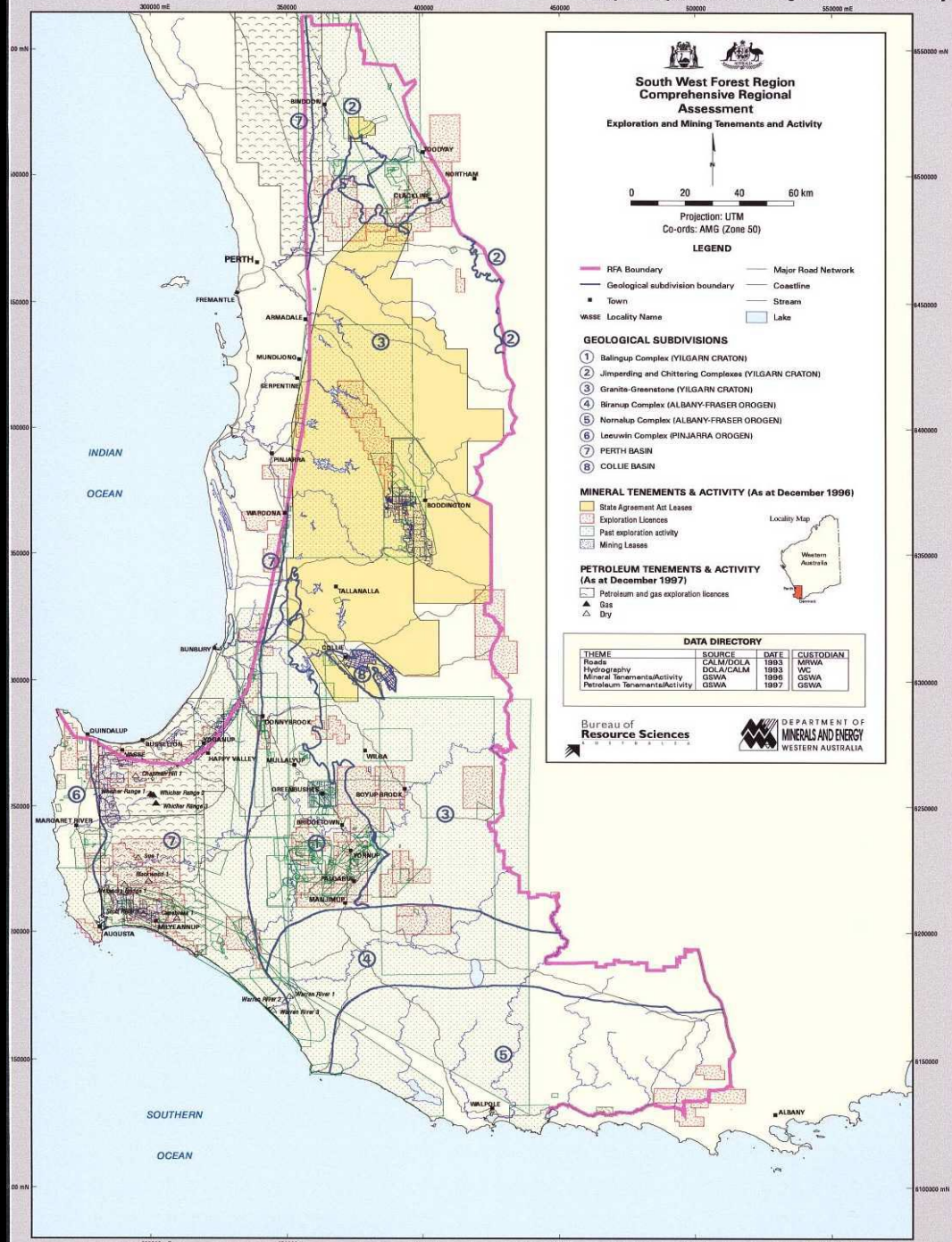


Distribution of Road, River and Stream Zones, Jane Forest Block, Pemberton District, (proposed by 1994 Forest Management Plan)



Conservation values of forest are important, but the forests of the south-west also make up a major economic contribution.

	Value (\$million)	Employment
Mining	2 680	39 500
Timber	850	20 000
Tourism	56	7000 - 9500
Beekeeping	7	250
Basic Raw Materials	768	4 127



**South West Forest Region
Comprehensive Regional
Assessment**
Exploration and Mining Tenements and Activity



Projection: UTM
Co-ords: AMG (Zone 50)

LEGEND

- RFA Boundary
- Geological subdivision boundary
- Town
- WASSE Locality Name
- Major Road Network
- Coastline
- Stream
- Lake

GEOLOGICAL SUBDIVISIONS

- ① Balingup Complex (YILGARN CRATON)
- ② Jimperding and Chittering Complexes (YILGARN CRATON)
- ③ Granites-Greenstones (YILGARN CRATON)
- ④ Branup Complex (ALBANY-FRASER OROGEN)
- ⑤ Normalup Complex (ALBANY-FRASER OROGEN)
- ⑥ Leewin Complex (PINJARRA OROGEN)
- ⑦ PERTH BASIN
- ⑧ COLLIE BASIN

MINERAL TENEMENTS & ACTIVITY (As at December 1996)

- State Agreement Act Leases
- Exploration Licences
- Past exploration activity
- Mining Leases



PETROLEUM TENEMENTS & ACTIVITY (As at December 1997)

- Petroleum and gas exploration licences
- Gas
- Dry

DATA DIRECTORY

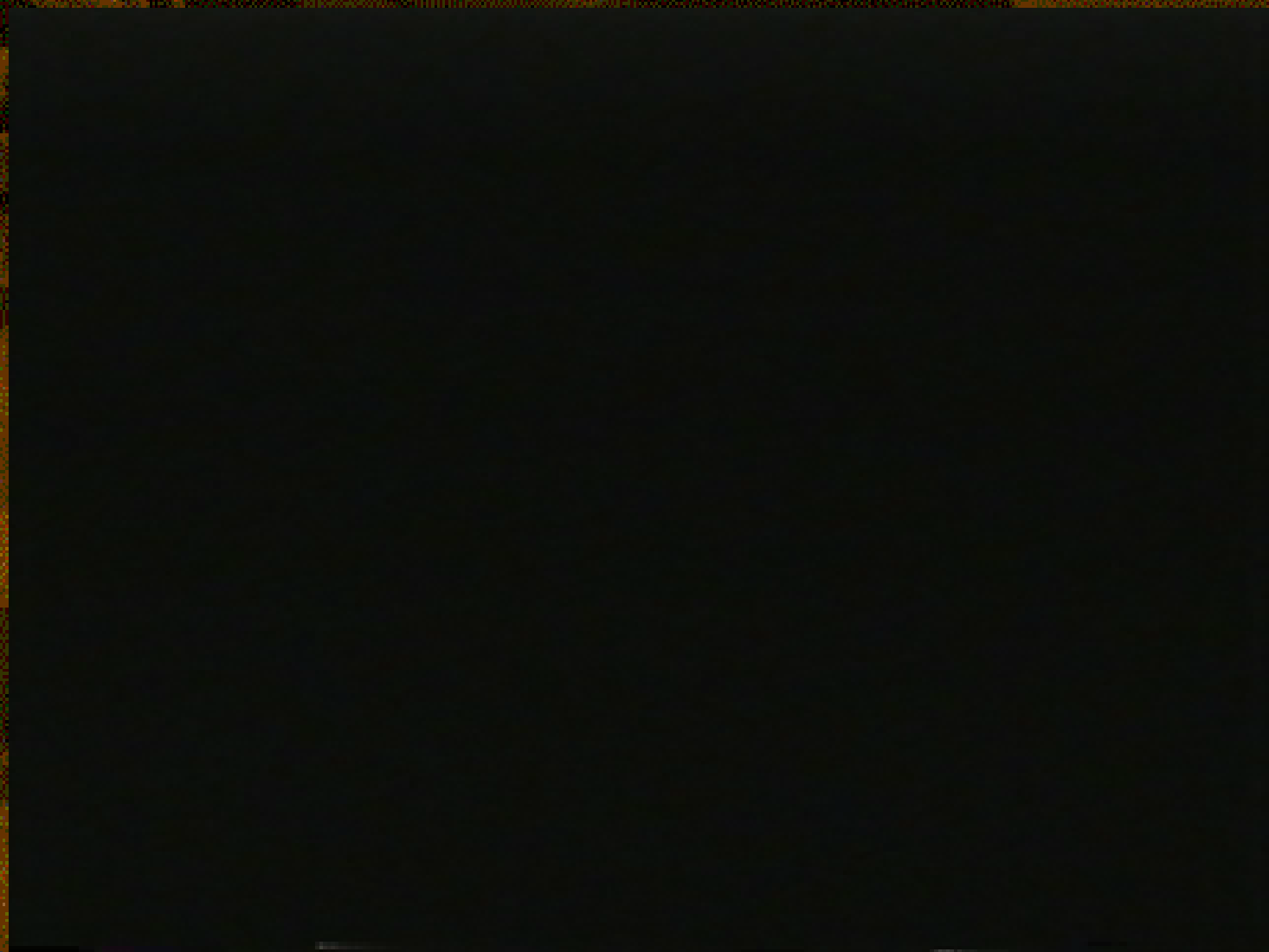
THEME	SOURCE	DATE	CUSTODIAN
Roads	CALM/DOLA	1993	MIRWA
Hydrography	DOLA/CALM	1993	WC
Mineral Tenements/Activity	GEWA	1996	GEWA
Petroleum Tenements/Activity	GEWA	1997	GEWA





INTEGRATION

- Integrating the needs of all of the community now and in the future
- Integrating different sustainable land uses with sustainable conservation
- Integrating conservation with wealth generation and employment creation
- Integrating management and scientific skills to achieve these objectives



Stages of Development of the Karri Forest

Stage 1	Establishment	0-8 years
Stage 2	Juvenile	9-25 years
Stage 3	Immature	26-120 years
Stage 4	Mature	121-250 years
Stage 5	Senescent	251-350+ years

Ages are approximate and considerable variation
is known to occur.

5 year old karri



15 year old
karri



50 year old
karri

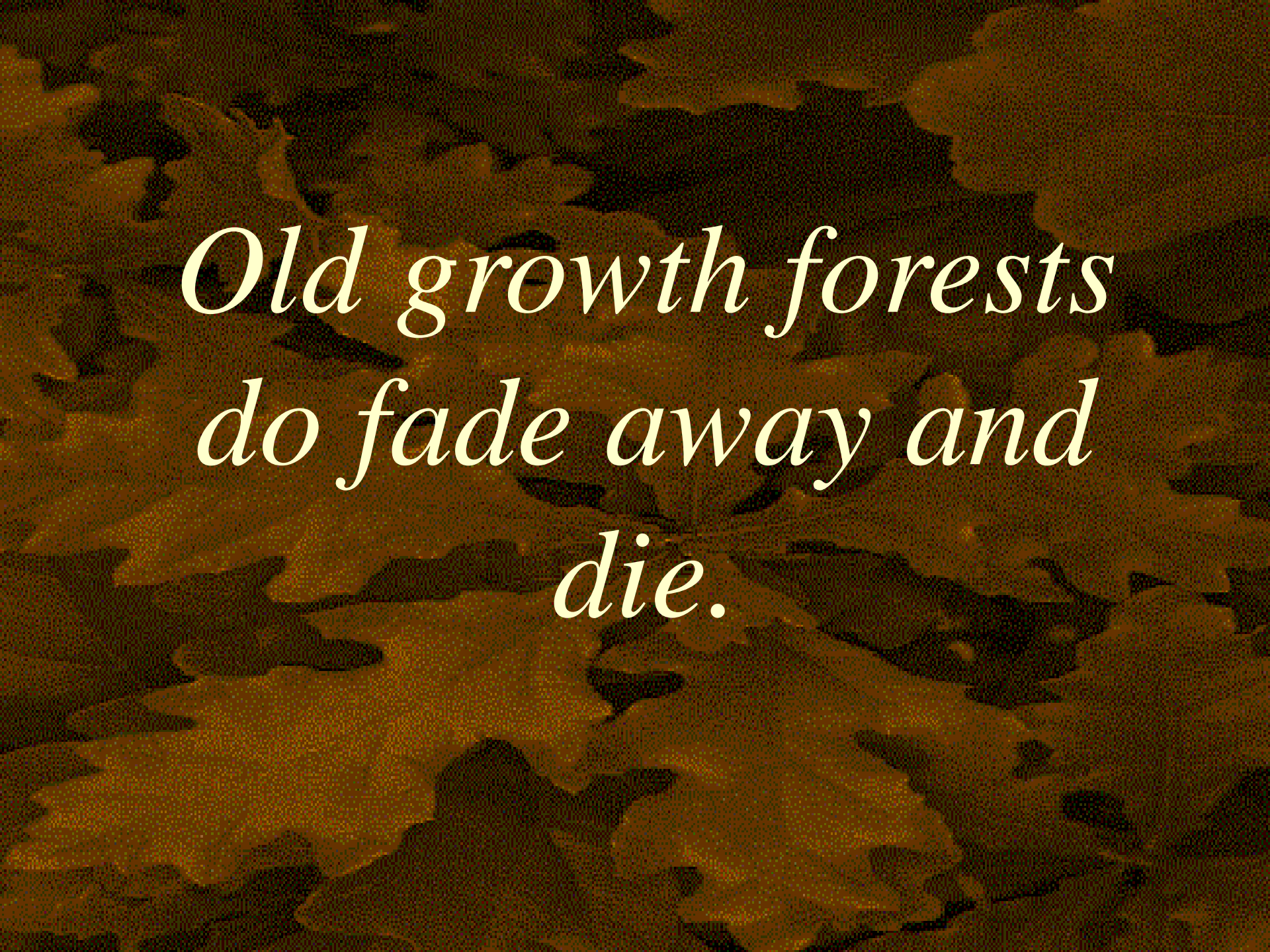


120 year old
karri



Old growth
karri





*Old growth forests
do fade away and
die.*

Senescent karri forest - National Park above the Pemberton Swimming Pool





Rainbow Trail - Pemberton (1934), 4 year old karri

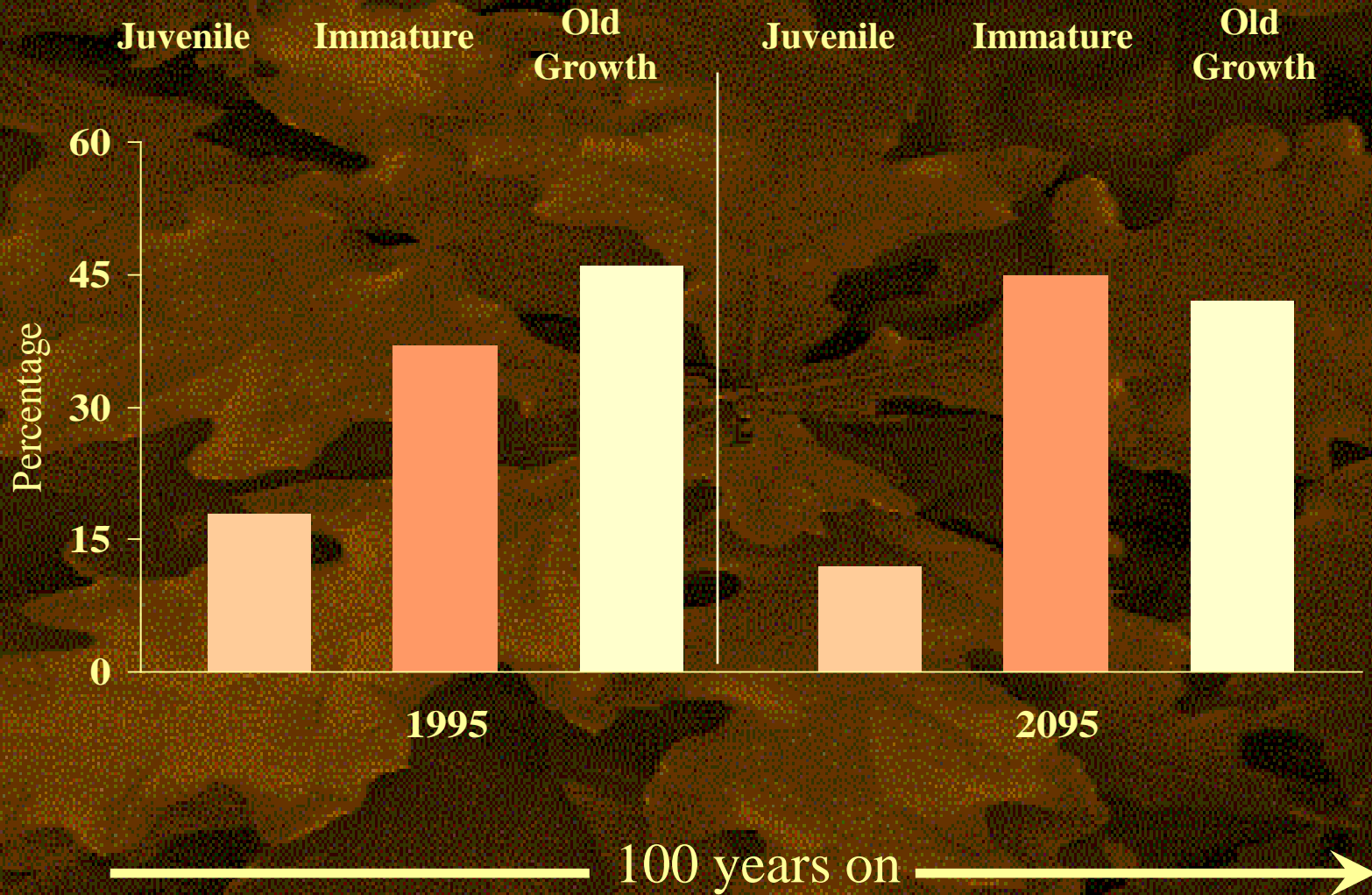


Rainbow Trail - Pemberton (1984), 50 year old karri



Rainbow Trail - Pemberton (1998), 64 year old karri

Karri Forest Structure



Regional Forest Agreements



COMPREHENSIVE,
ADEQUATE &
REPRESENTATIVE
RESERVE SYSTEM

INDUSTRY &
COMMUNITY
CERTAINTY

ECOLOGICALLY
SUSTAINABLE
FOREST
MANAGEMENT

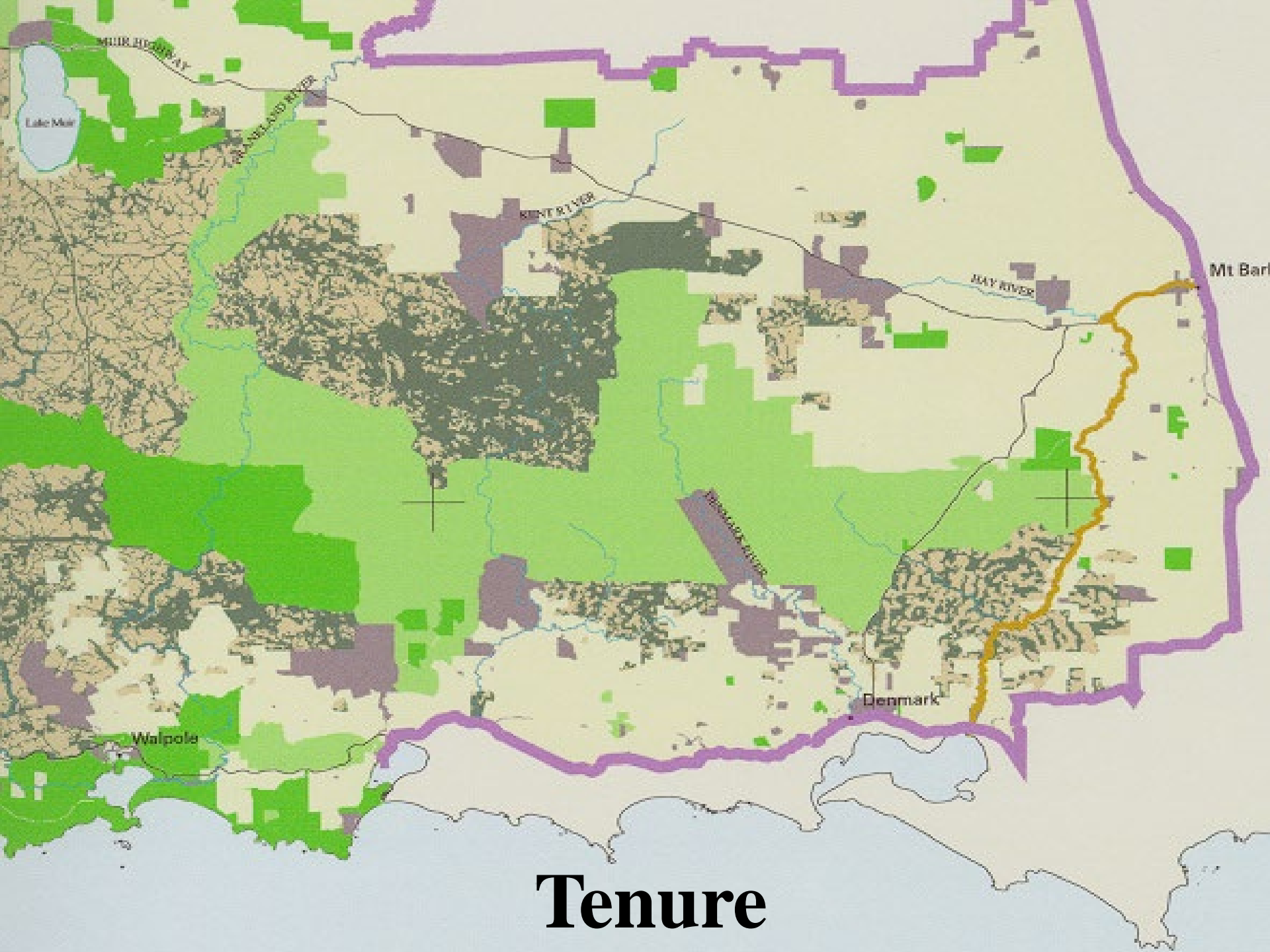
Nationally Agreed Forest Reserves Criteria

Biodiversity Criteria

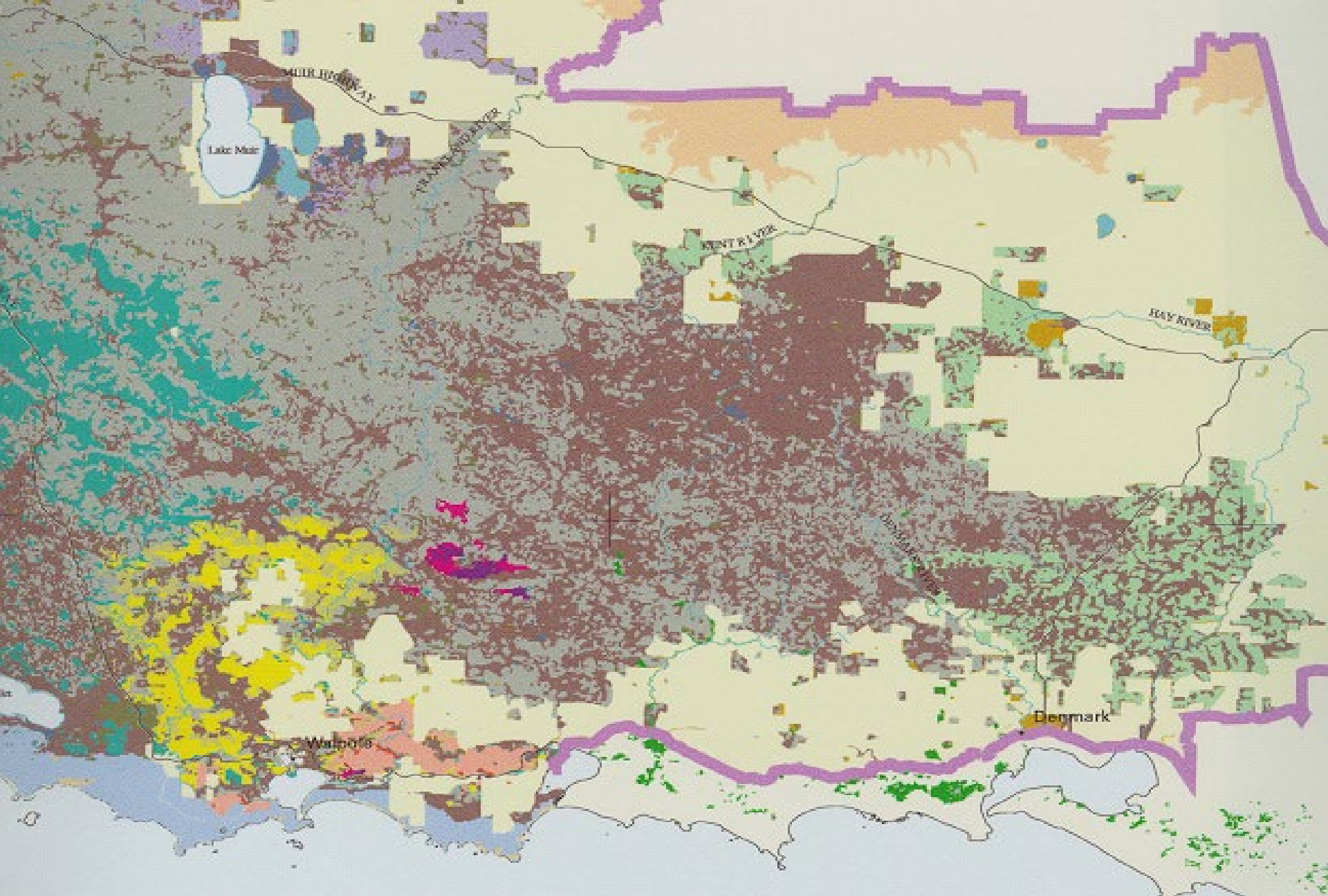
1. 15% of pre-1750 distribution of each forest ecosystem in reserves
2. 60% of vulnerable forest ecosystems in reserves (vulnerable = 70% depleted and threatening processes continuing)
3. 100% of rare and endangered forest ecosystems in reserves (rare = total area less than 1000 hectares)

Science of the RFA

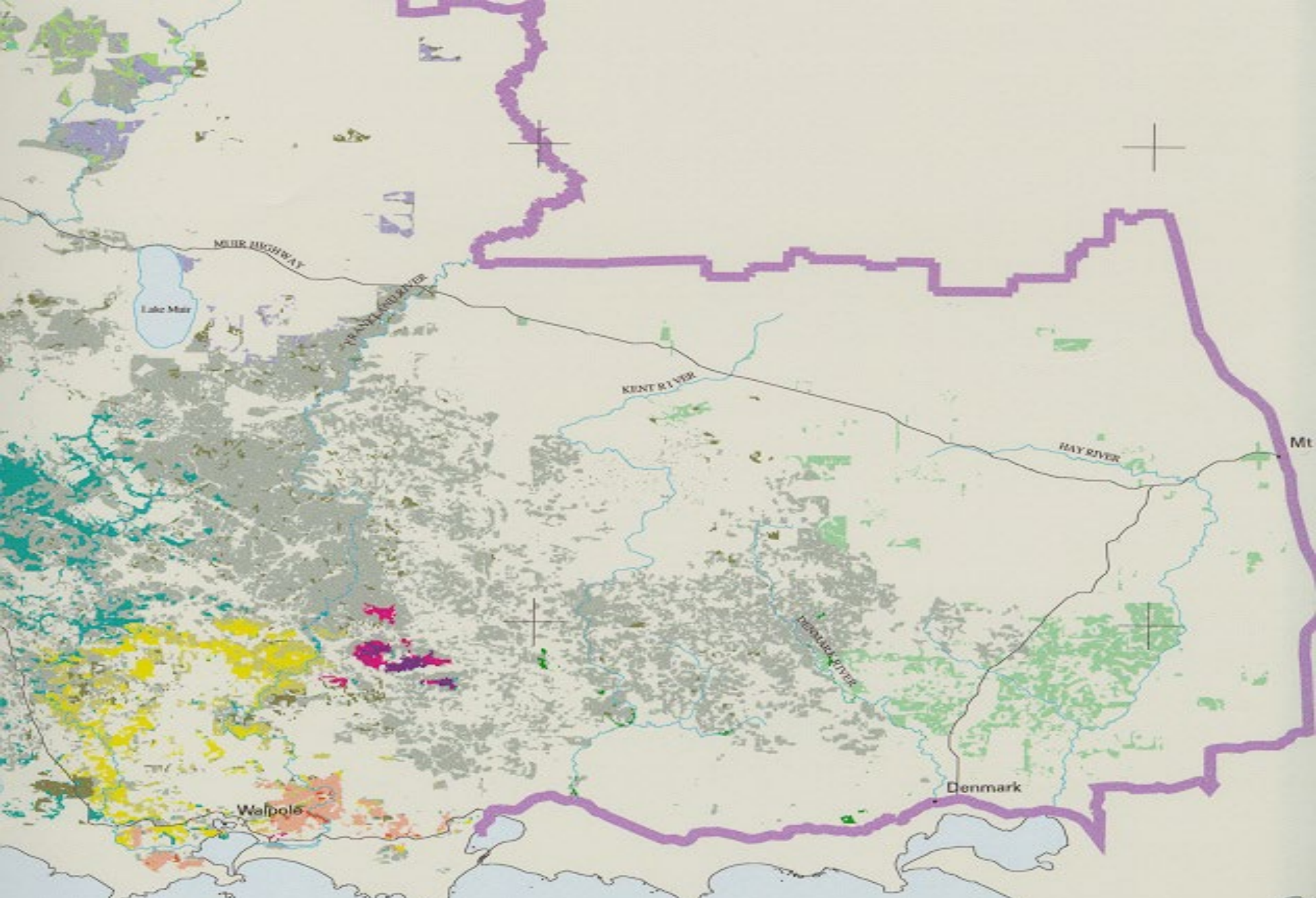
- Over 46 RFA reports covering Environment, Heritage, Economic and Social assessments
- More than 500 scientists participated in the assessments
- 312 vegetation complexes were mapped
- 27 forest ecosystems were mapped
- There were 153 000 records of 3244 plant species documented
- A new database for fauna involving 76 000 records of 796 species was completed



Tenure



Forest Ecosystems

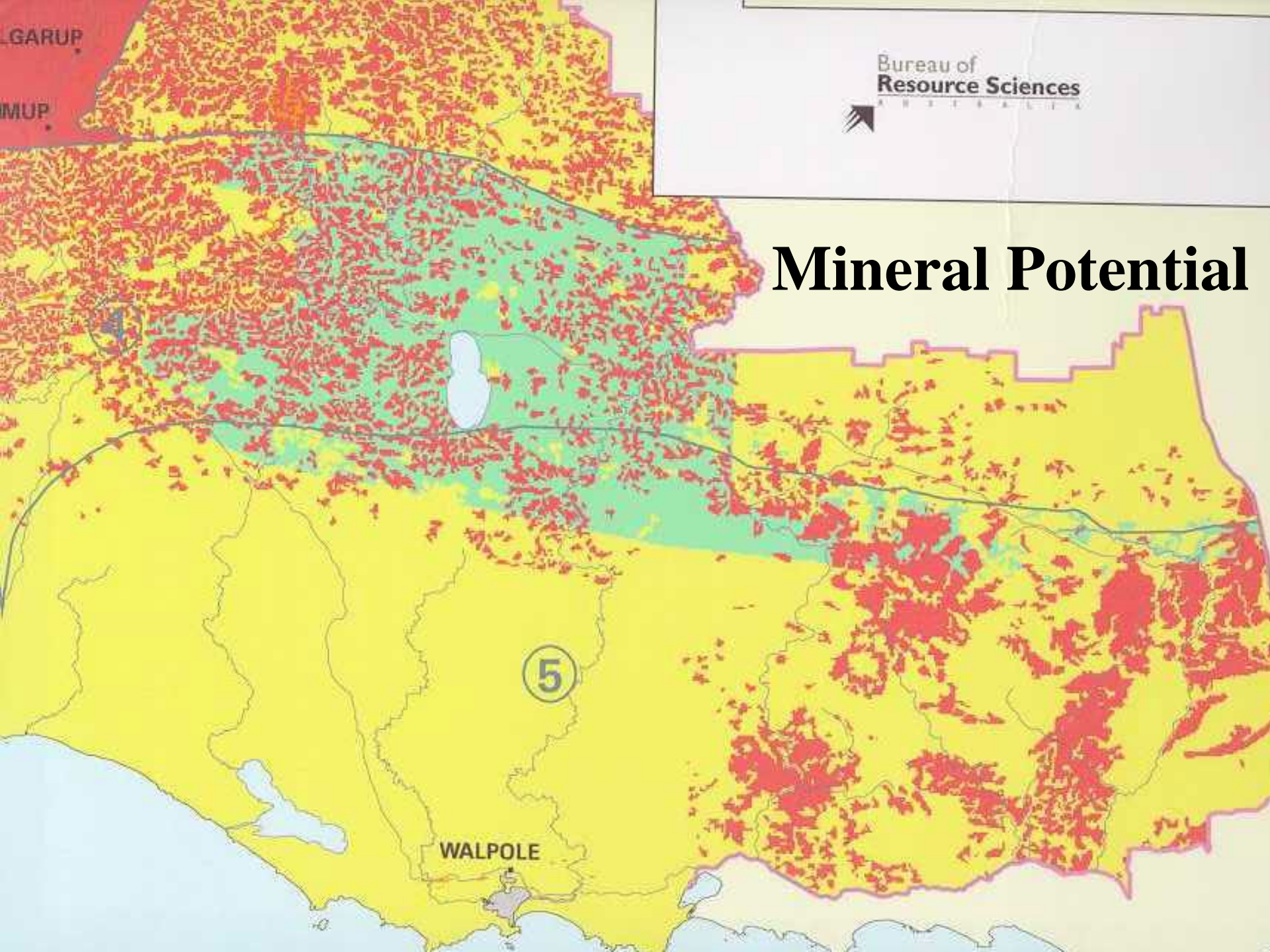


Old Growth

L GARUP

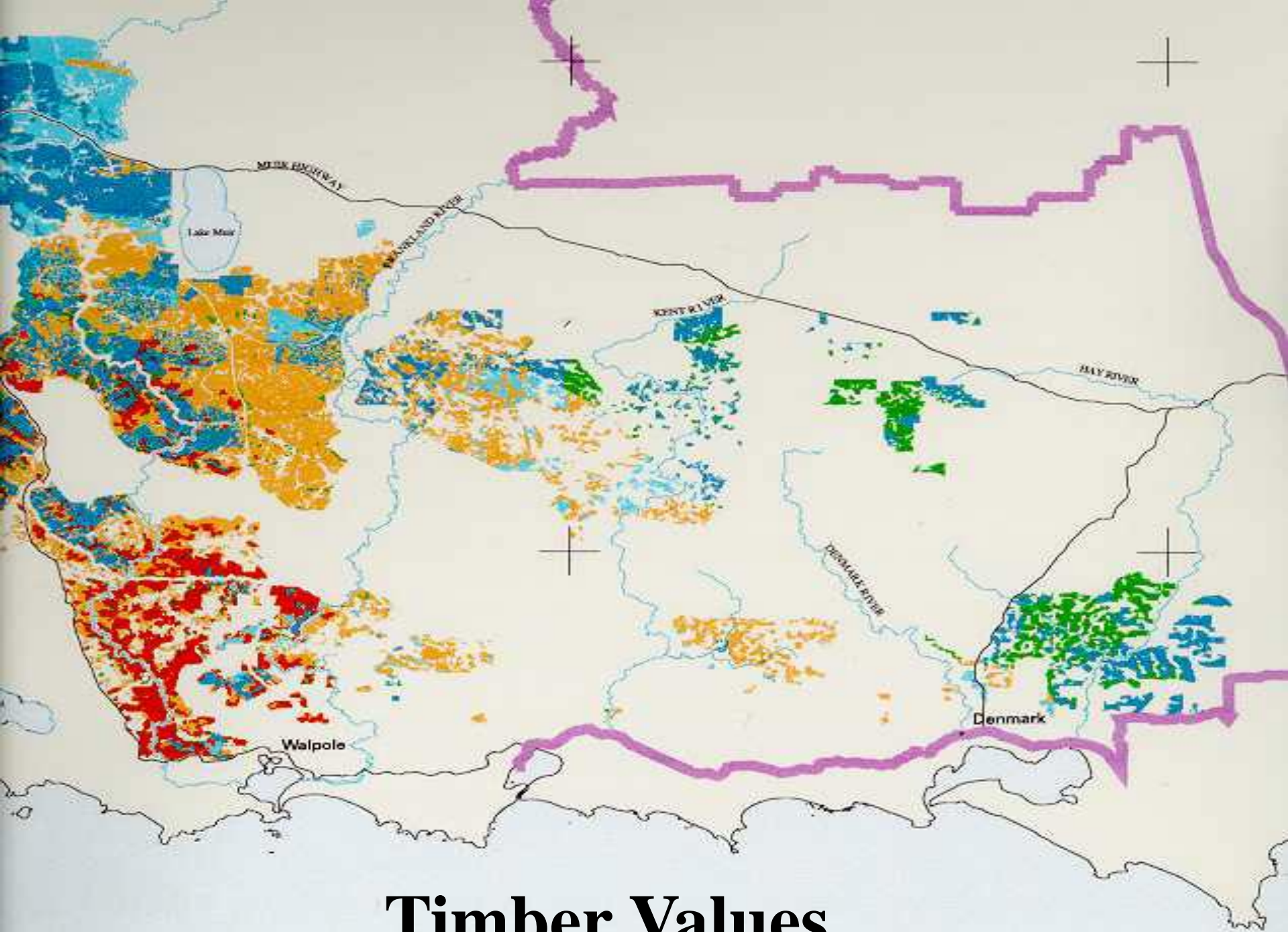
MUP

Mineral Potential



WALPOLE

5



Timber Values

Public Consultation

Prior to the RFA process

- 1982 EPA review of karri forest - 500 public submissions
- 1987 Regional Forest Management Plans and Timber Strategy - public consultation phase involving 1891 public submissions
- 1990 Resources Assessment Inquiry) *each involving public*
- 1991 Review of Ecologically Sustainable Development) *hearings, community workshops*
- 1991 National Forest Policy Statement) *and public submissions*
- 1992 Draft Forest Management Plan
 - public submissions under the CALM Act
 - public submissions under EPA Assessment Process
- 1993 Appeals Committee Review of Forest Management Plans - extensive community workshops and public submissions
- 1995 Deferred Forest Assessment Process - 500 public submissions

Consultation During RFA

- 1997 8 public meetings in Perth and throughout the South-West
- 1997-98 122 meetings with organisations
- 1996-98 9 meetings of Stakeholder Reference Group
- 1996-97 5 meetings on Noongar Action Group
- 1997 9 public open days in Perth and throughout the South-West
- 1997 10 public open days in Perth and throughout the South-West
- 1997 10 community heritage workshops in Perth and throughout the South-West
- 1997-98 7 indigenous workshops throughout the south-west
- 1997-98 195 meetings with organisations and individuals by the Social Assessment Unit
- 1998 30 000 public submissions

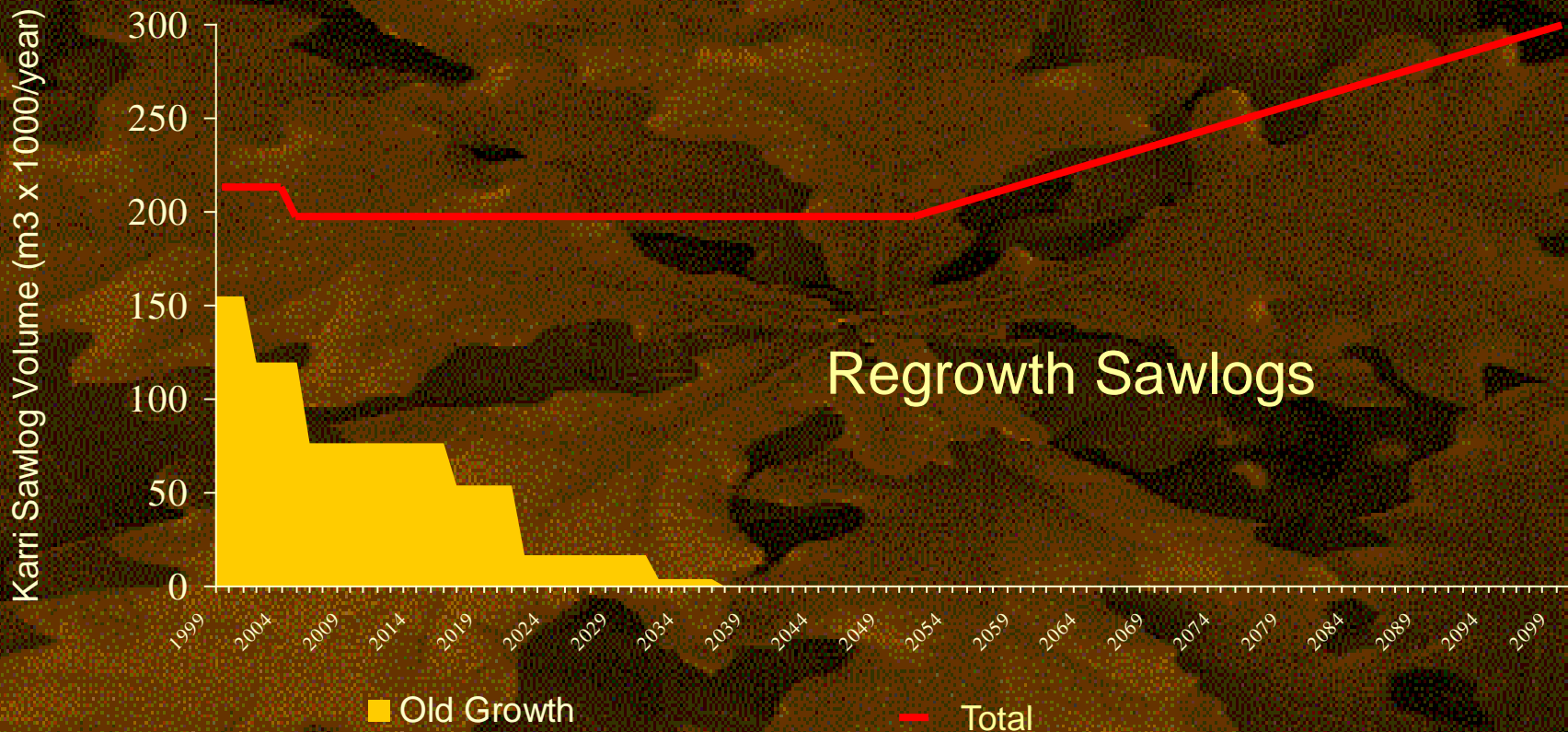
The WA Forest Alliance Proposal

- An additional 657 000 hectares of new reserves.
- These reserves include 95 000 hectares of old growth.
59 000 hectares of old growth remain as State forest.

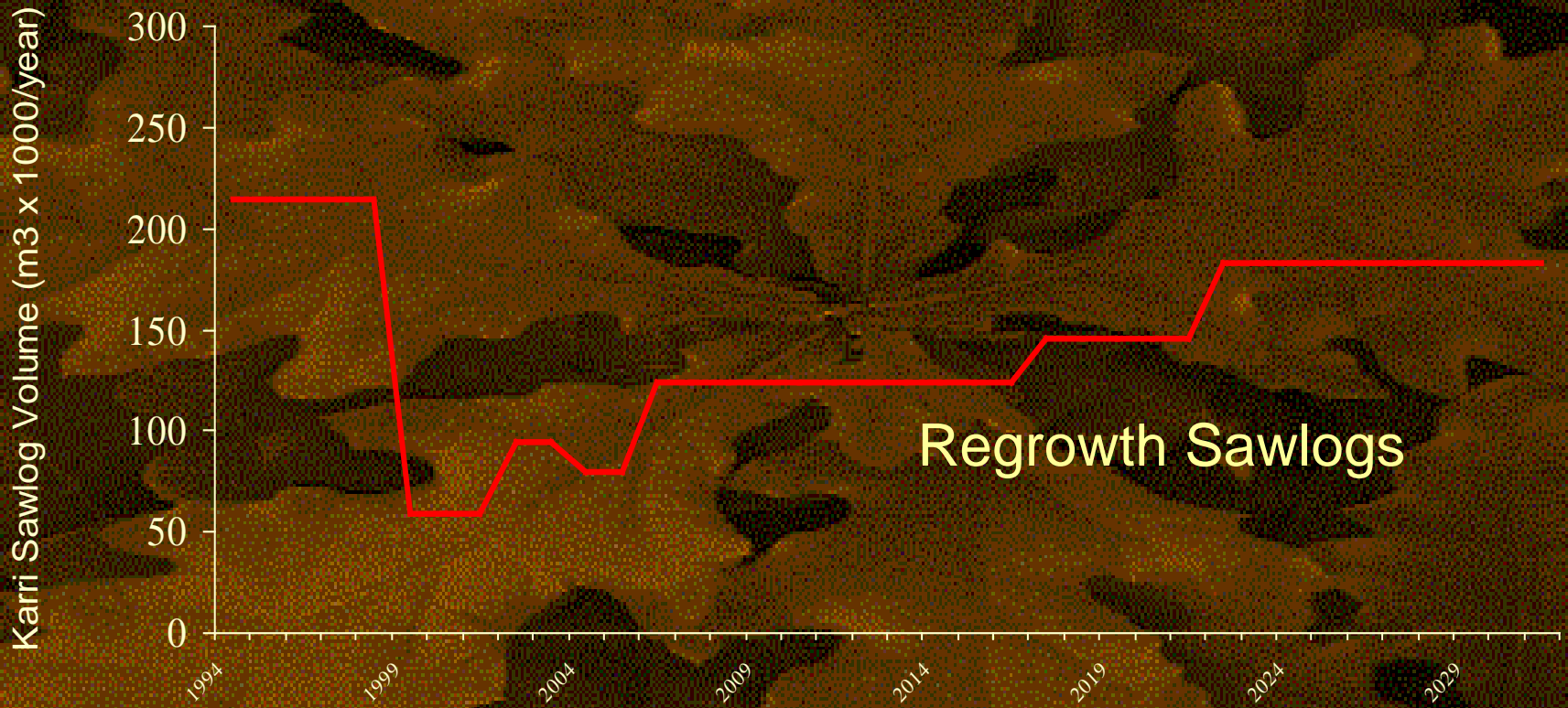
Impact

- Karri sawlog yield down 65%
- Jarrah sawlog yield down 46%
- 6686 jobs in the timber industry
- 16 700 people in rural communities affected
- The impact of reserving all old growth would be even greater.

Effect of Old Growth Karri Forest on Wood Supply



Effect of Stopping all Old Growth Logging



The Native Forest Timber Industry

The major objectives of the Government and the Timber Industry over the last 15 years have been to:

- convert the industry from one which essentially produced green sawn structural timber to one that produced high value ornamental products that capitalised on the ornamental values of our native timbers; and
- encourage the development of new technologies that would permit the industry to transition from resource that was primarily old growth to a resource based on regrowth forest.





Dean Mill

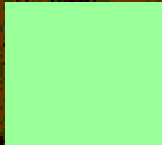
Historical (pre-1985)

Today

Green Sawn



72%



2.5%

Value Added



28%



97%

Veneer



0.5%

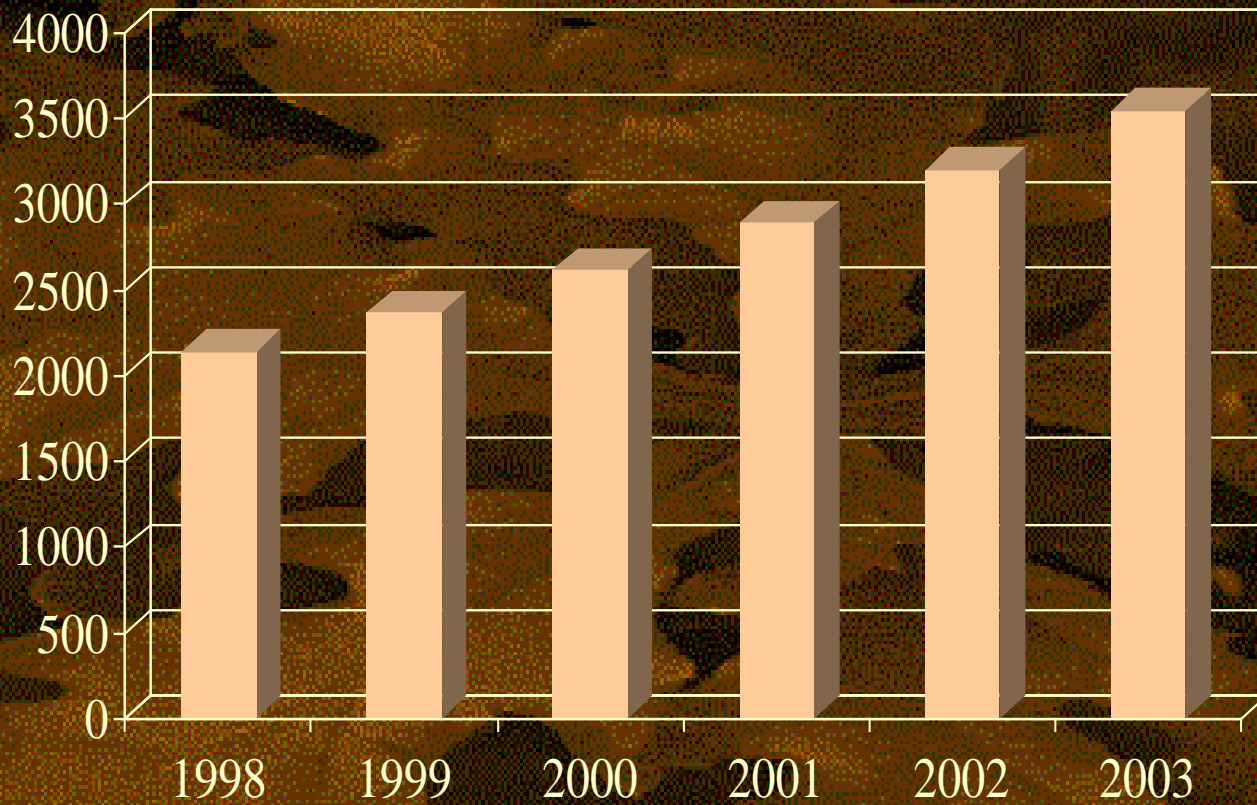
Percentage (%)







Employment Forecast (Direct and Indirect) Outdoor Furniture and Feature Furniture Sectors



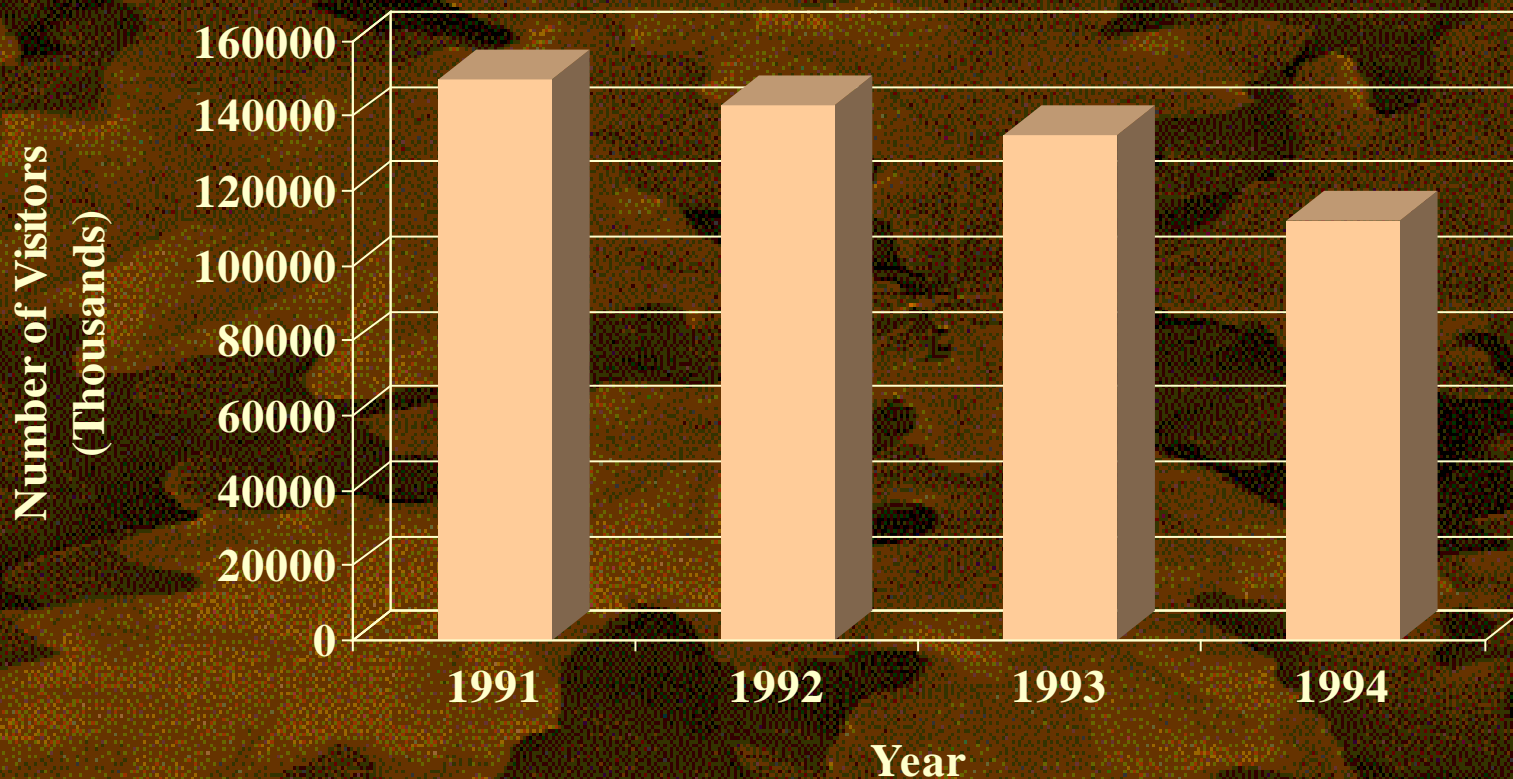
Timber 16,000 m³

25,000 m³

Source: BIS Schrapnel, 1998



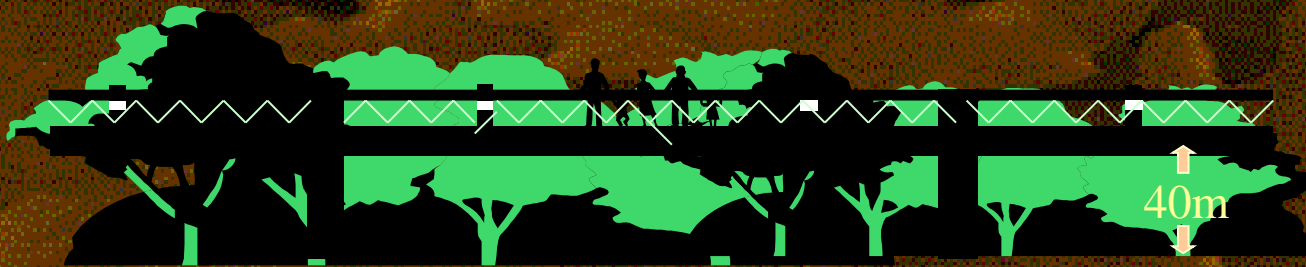
Visitor Numbers to the Valley of the Giants







500,000 people have visited the Tree Top Walk since it opened in September 1996



The Tree-Top Walk covers an area of 409 m²



3 square metres of land were used to support the Tree Top Walk

24 months after opening the Tree Top Walk

- Tourist visitors to Walpole have doubled
- Six new accommodation outlets have opened
- A 35-room motel has been constructed
- 500,000 people have visited the Walk
- \$2.5 million revenue generated

Old Growth Forest Reserves

13 hectares of Old Growth Forest supports
200,000 visitor per annum

There are 347,000 hectares of
Old Growth Forest Reserves

Therefore there is sufficient Old Growth Forest to
provide for 5.3 billion visits per annum

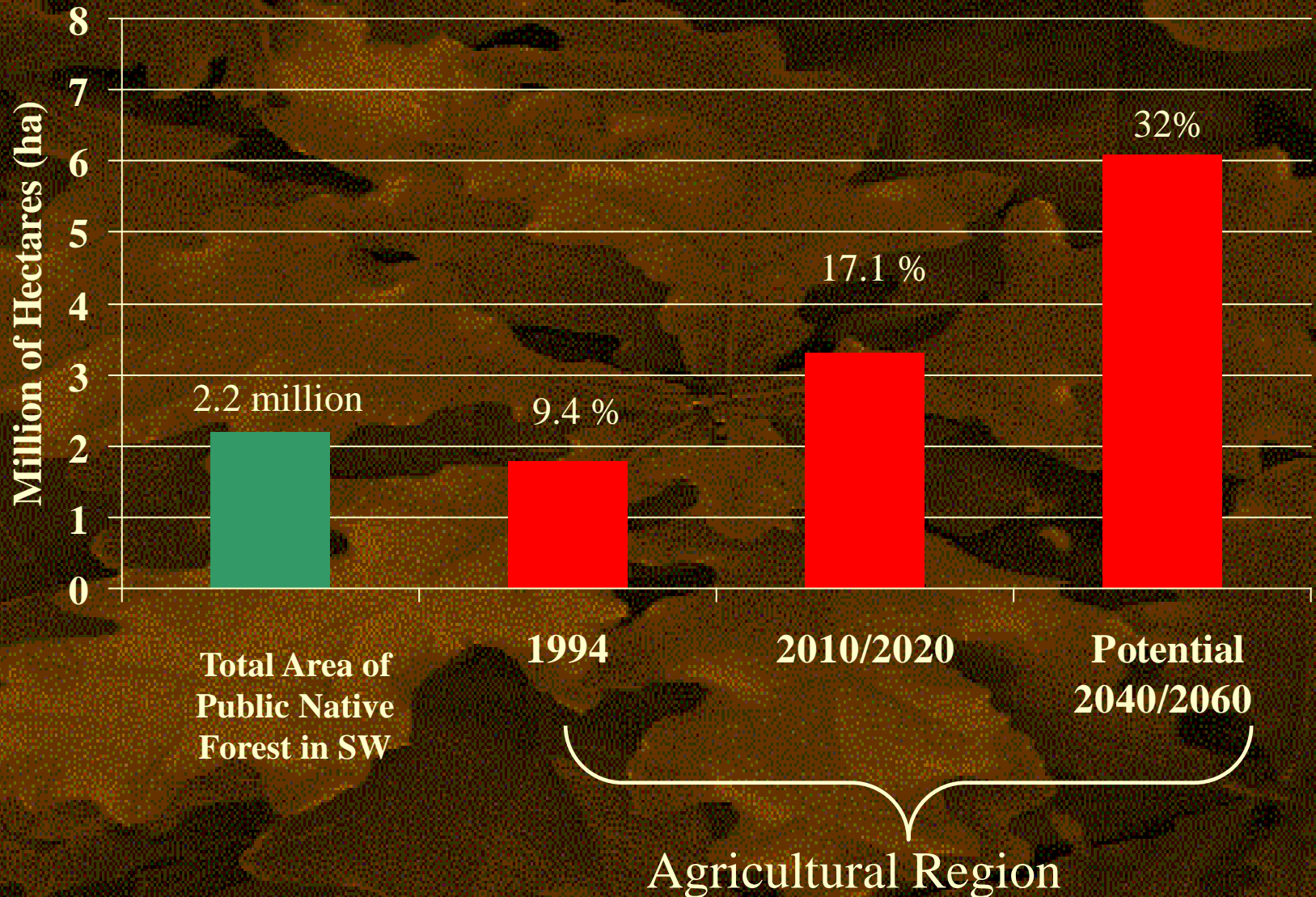
*A major objective of
Western Australia's forest
management is to protect
the quality of water that is
produced from the forest.*



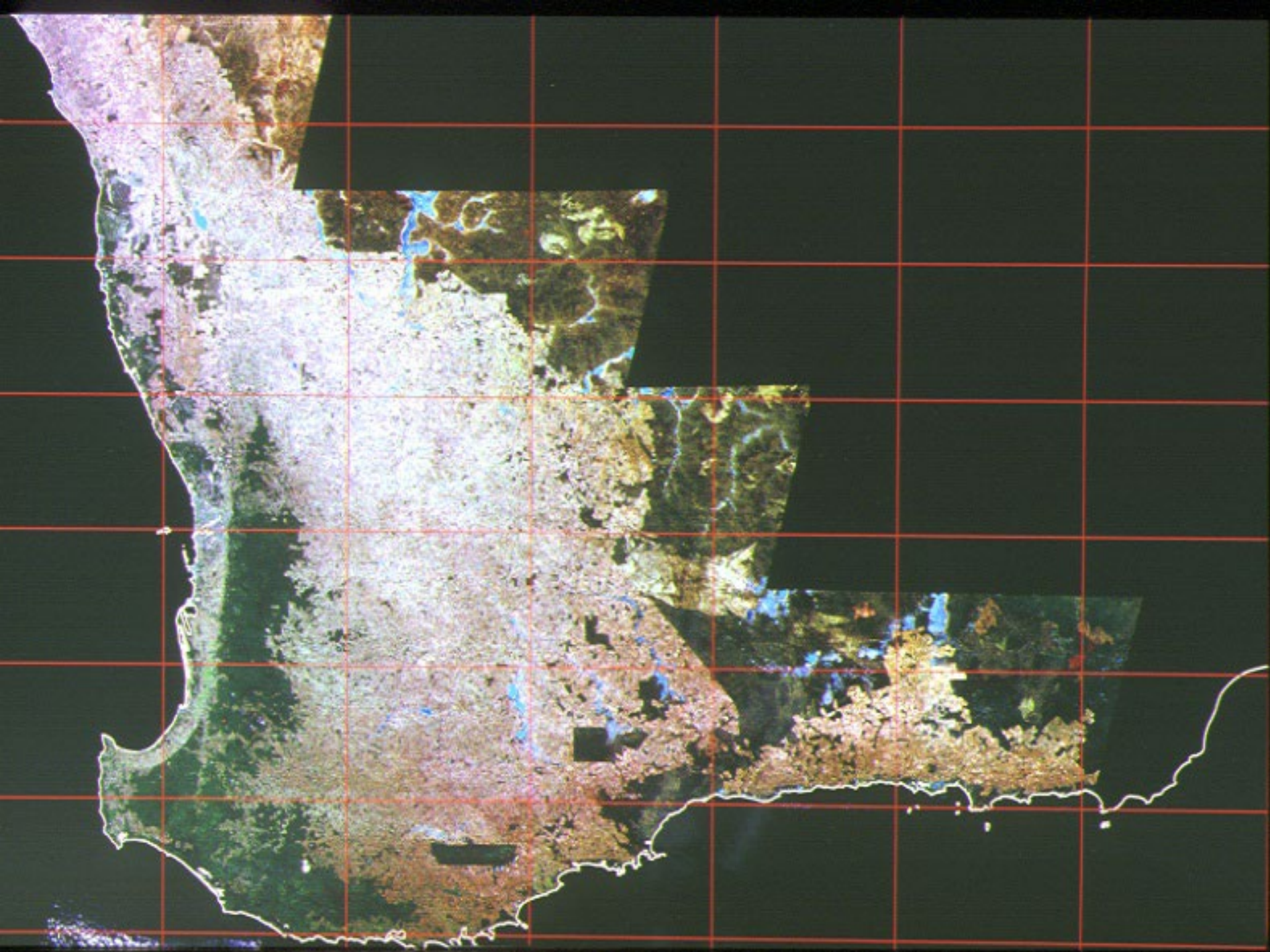
Western Australia's native forests have been logged for over 150 years but there is not one fully forested catchment which has water quality which is below fresh drinking water standards.



Areas of Land Effectuated by Secondary Salinity

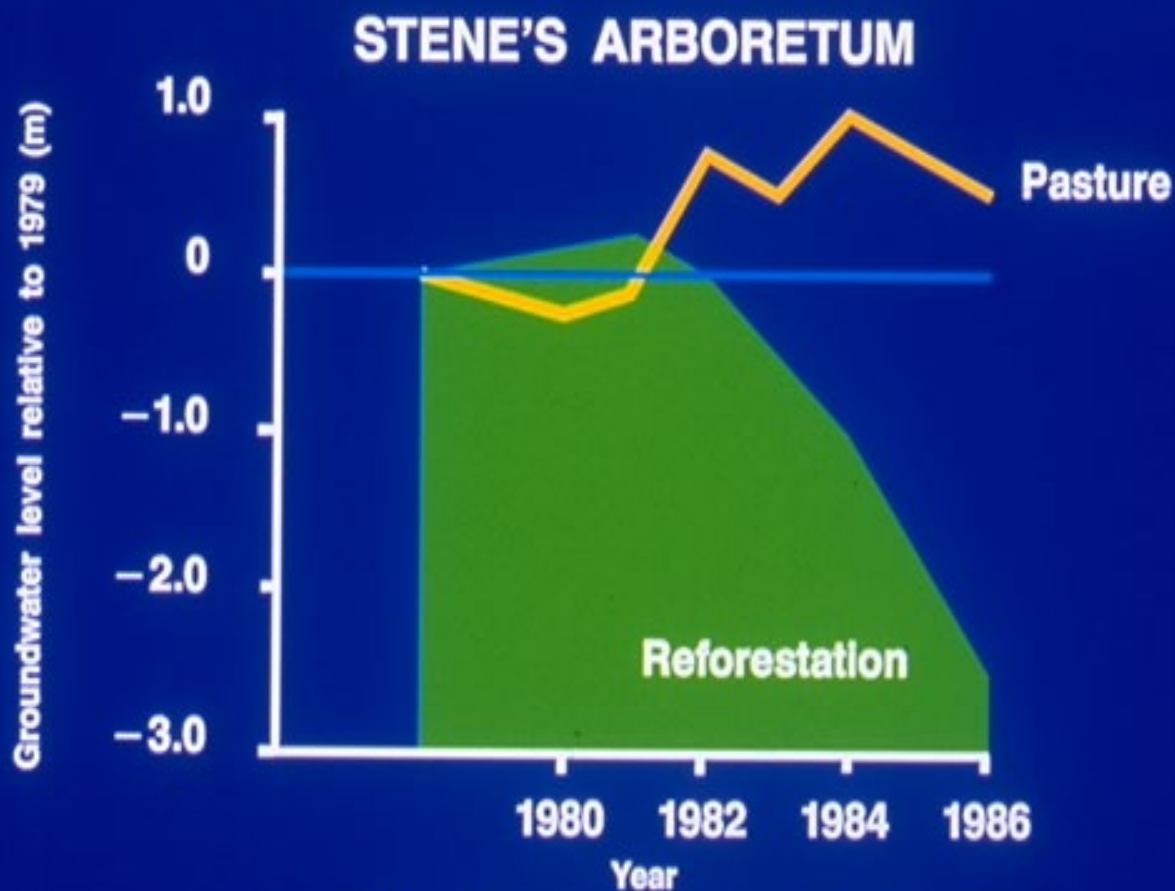








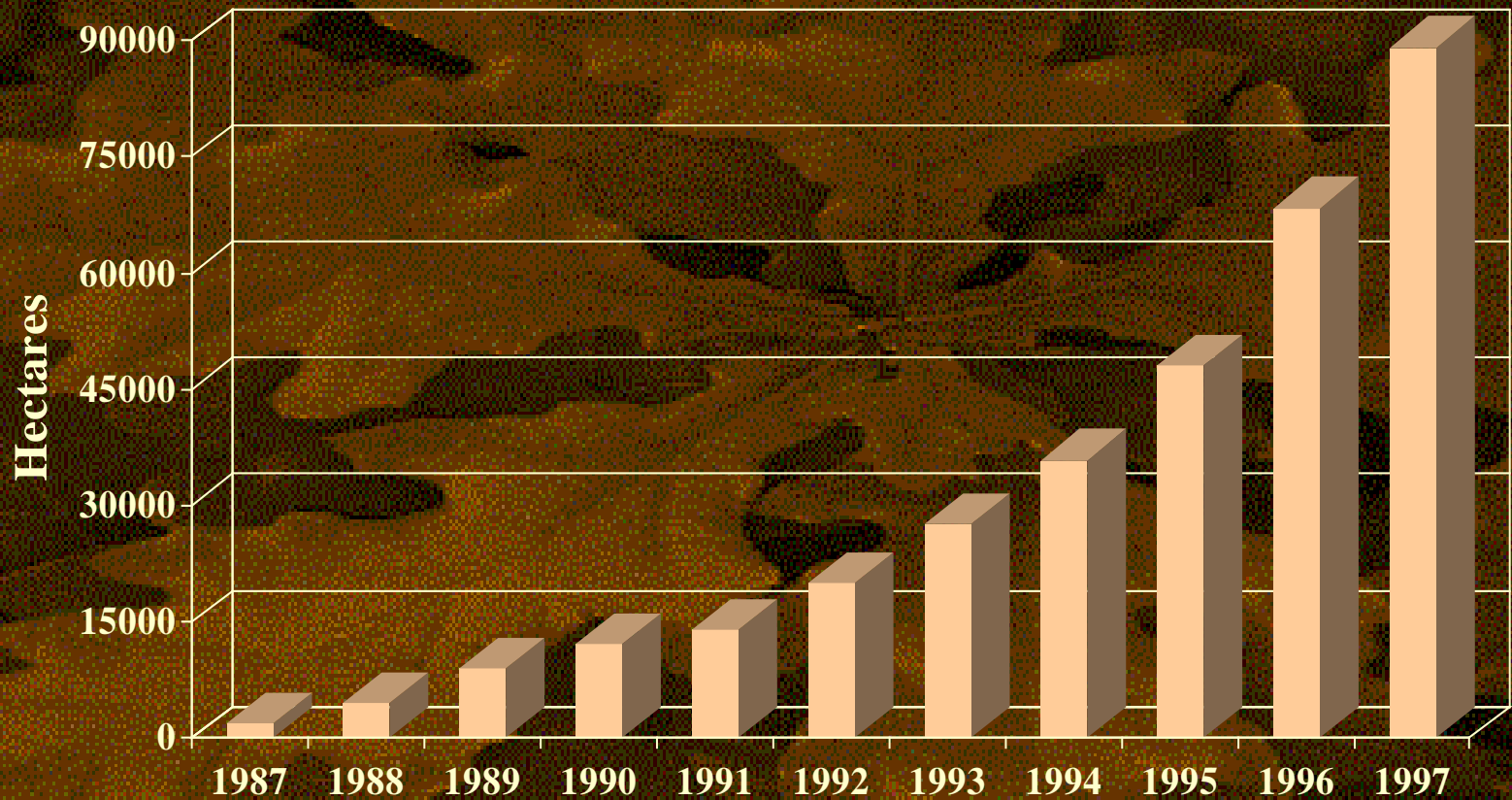
THE EFFECT OF TREE CROPS ON WATER TABLE LEVELS



Water Authority of Western Australia
July 1989
Report No. WS 33



Total area of *E. globulus* in WA









La Mancha *Maritime Pine*





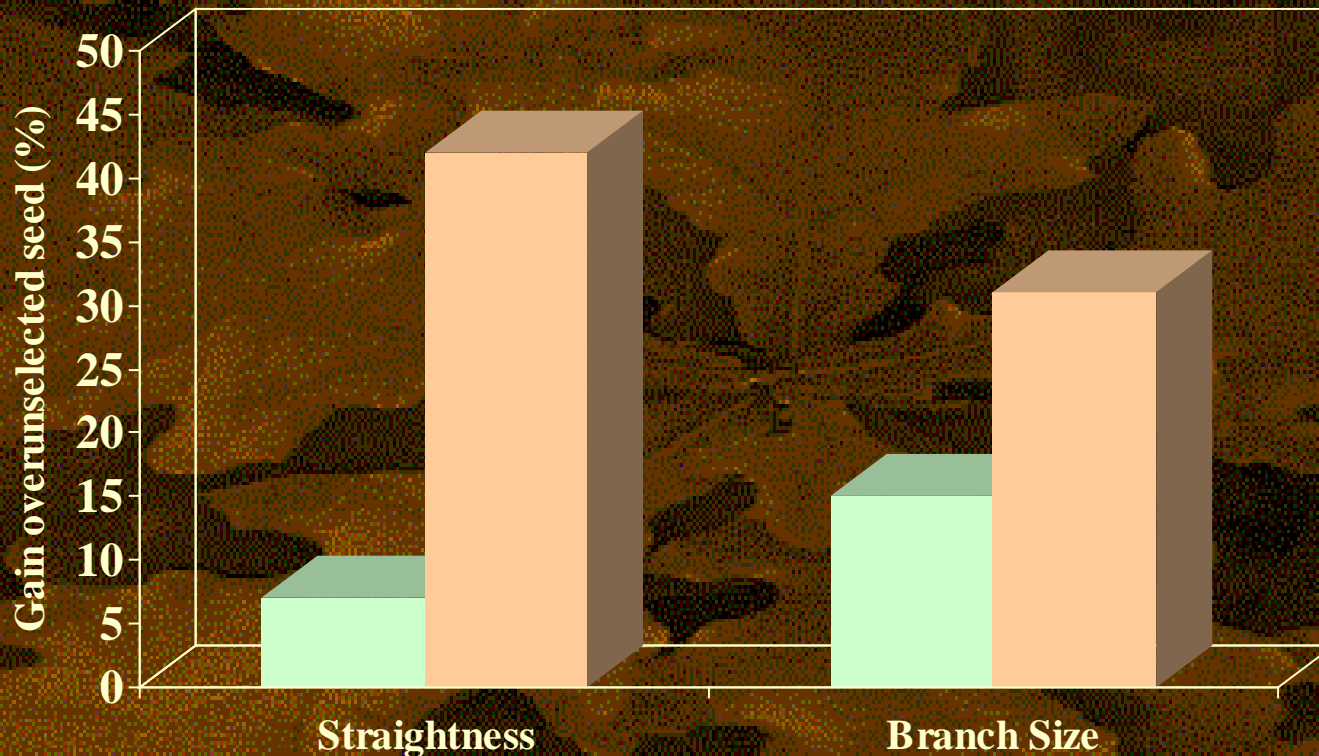
CALM's Genetic Resource:

Pinus pinaster

Program commenced in 1957

	Parents	Number	Area (ha)	Trees
Breeding Population Trials	313	93	171	202 000
Breeding Research Trials		11	43	45 000
Clonal Seed Orchards		4	48	(24 ha active)
Clonal Archives		3	6	

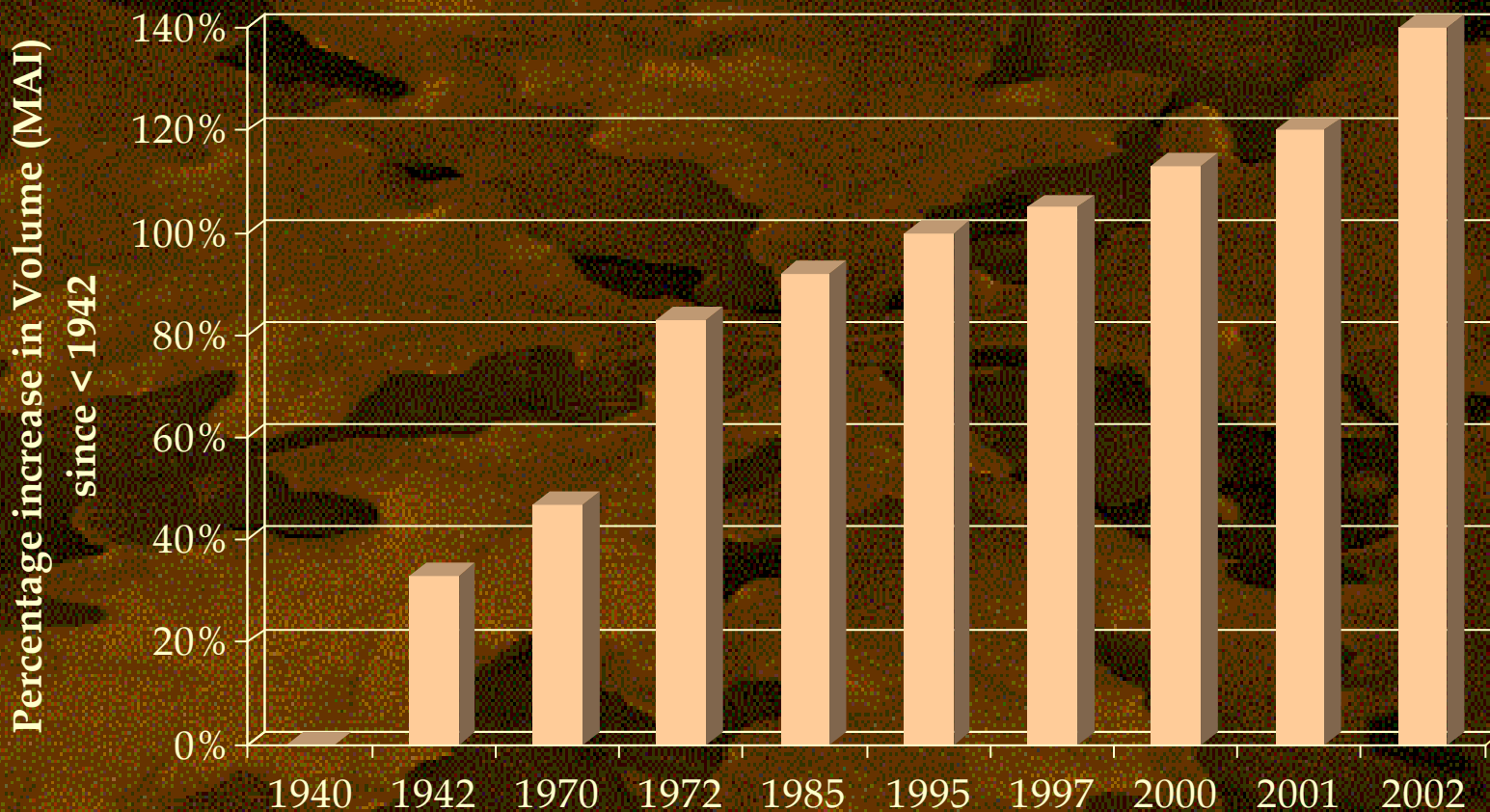
Maritime Pine Breeding Improvement



■ Plantation Grown From Unselected Seed ■ Stand Grown From Selected Seed

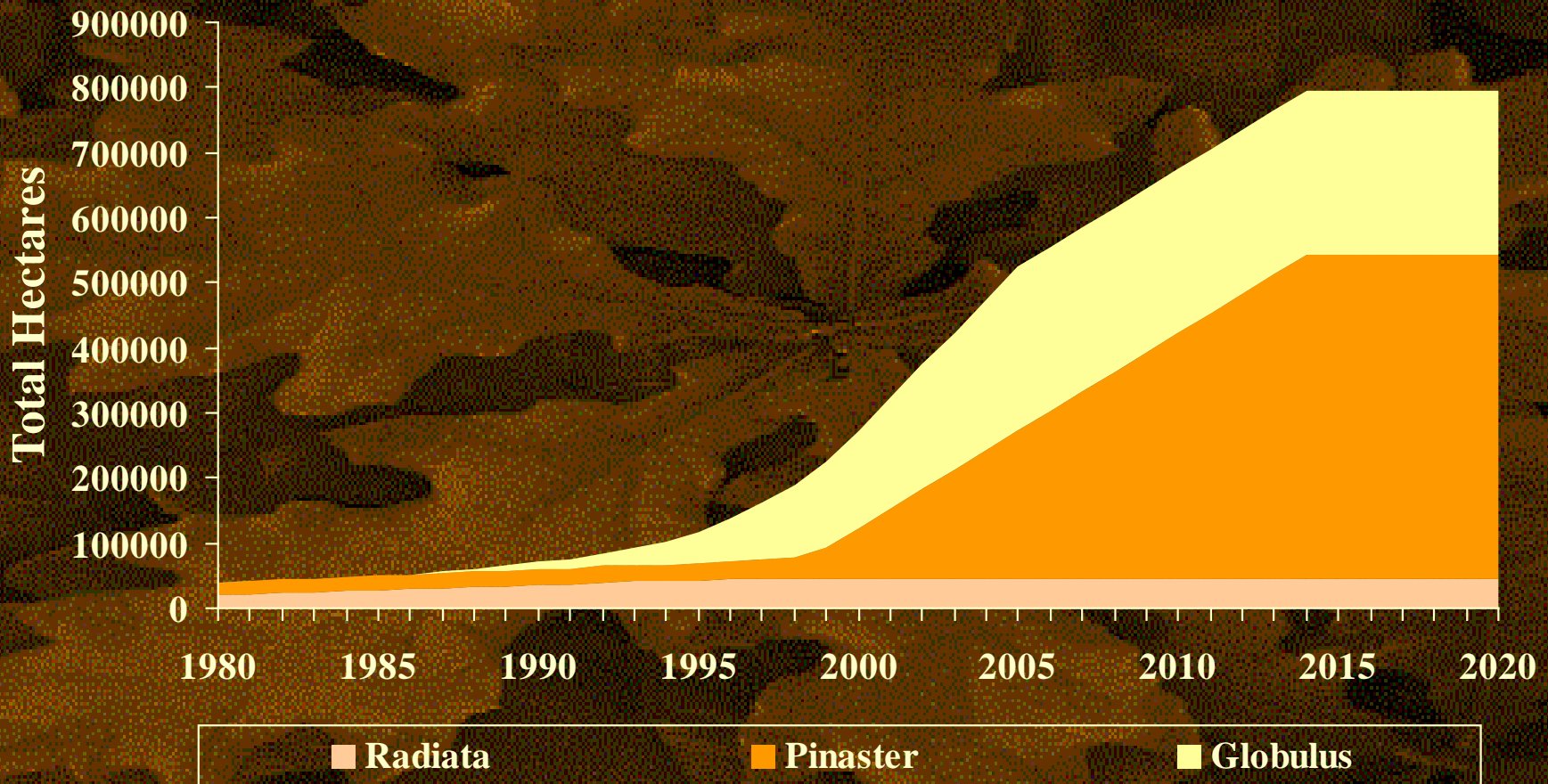


Volume gains from the tree improvement program for Maritime Pine

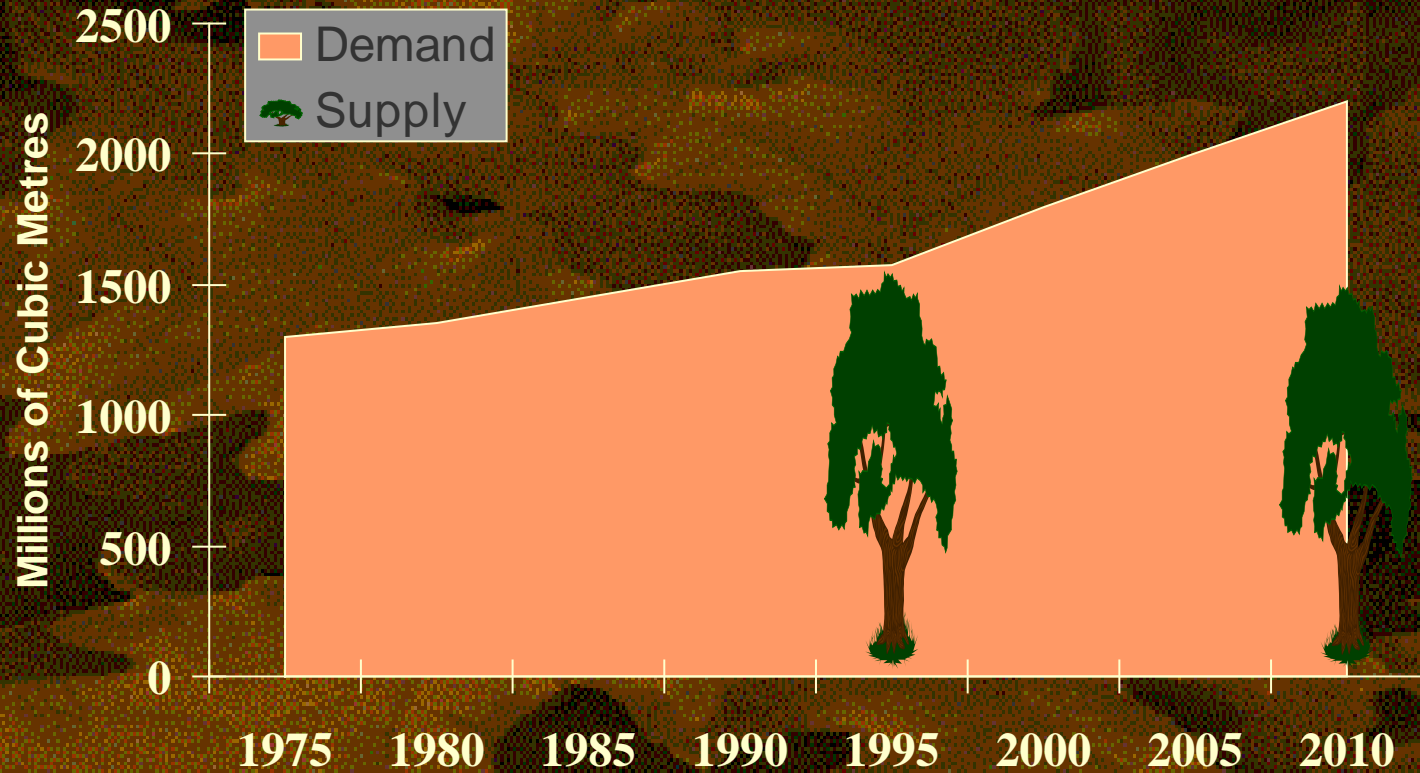




Predicted growth of tree crop plantings in Western Australia



Global wood demand rises as supply falls

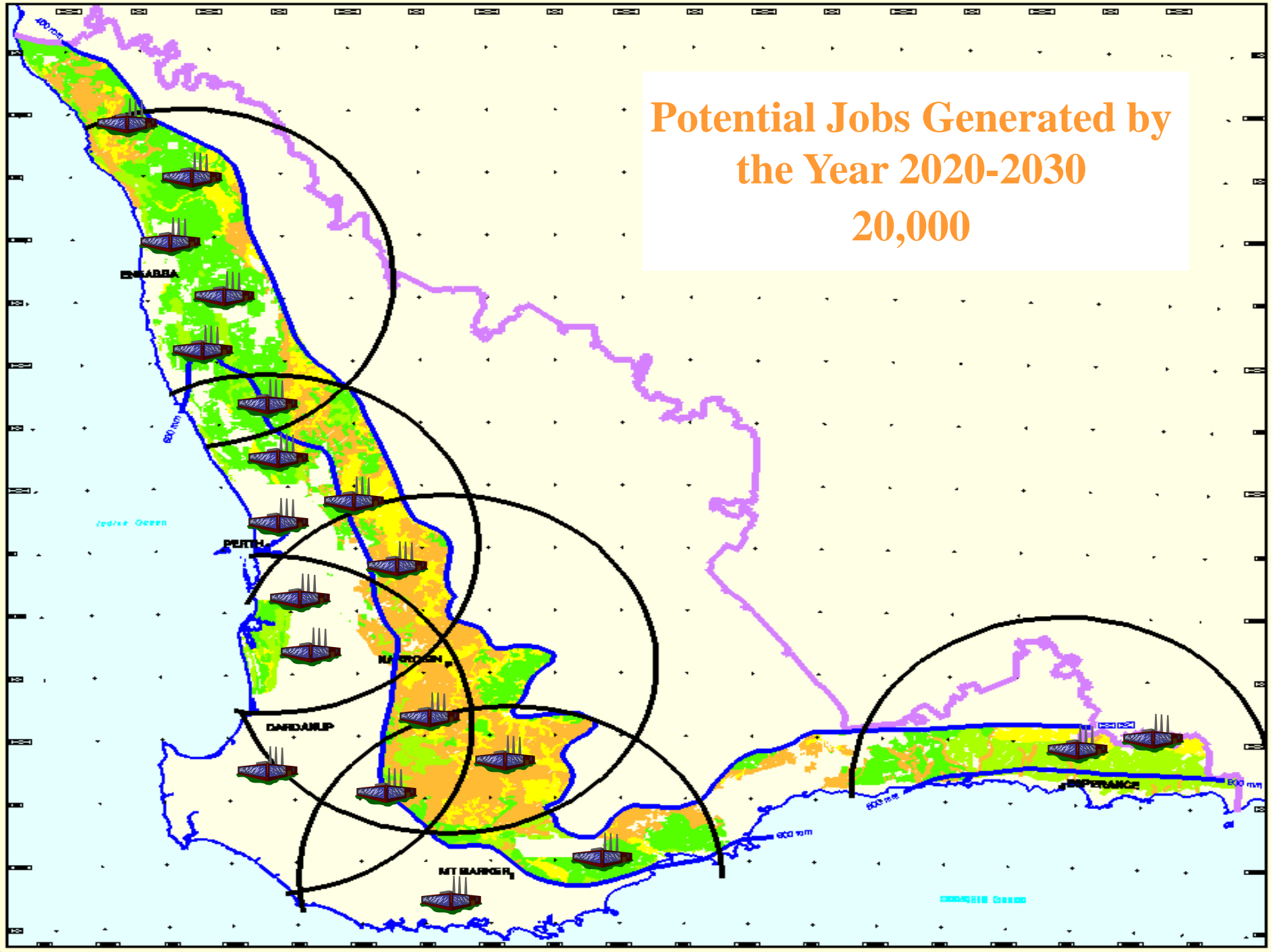


Sources: D A Neilson, UN FAO, Apsey & Reed, Jaakko Poyry, Widmans World Wood Reveiw, Xylem Investments Inc





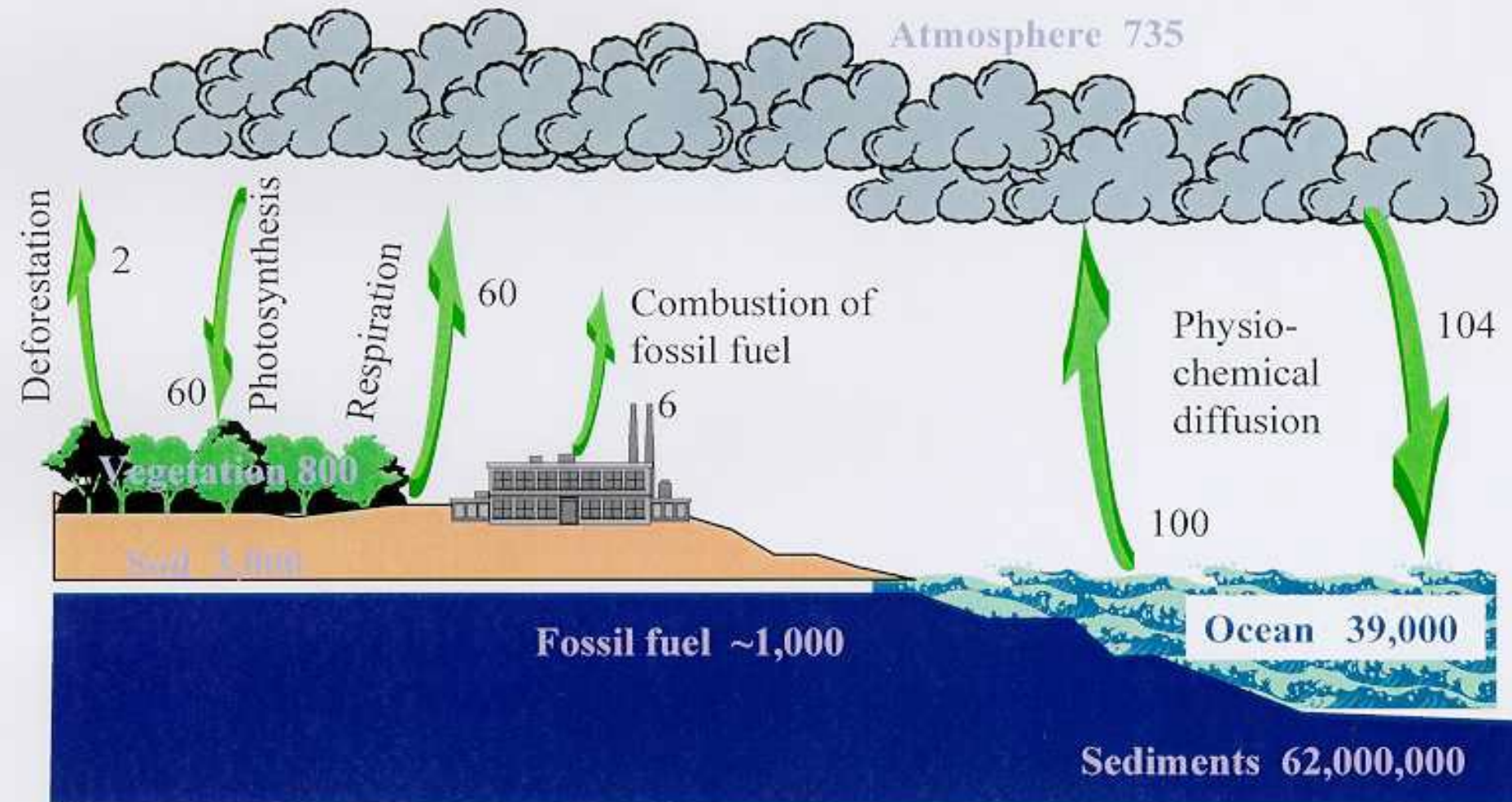
Potential Jobs Generated by
the Year 2020-2030
20,000





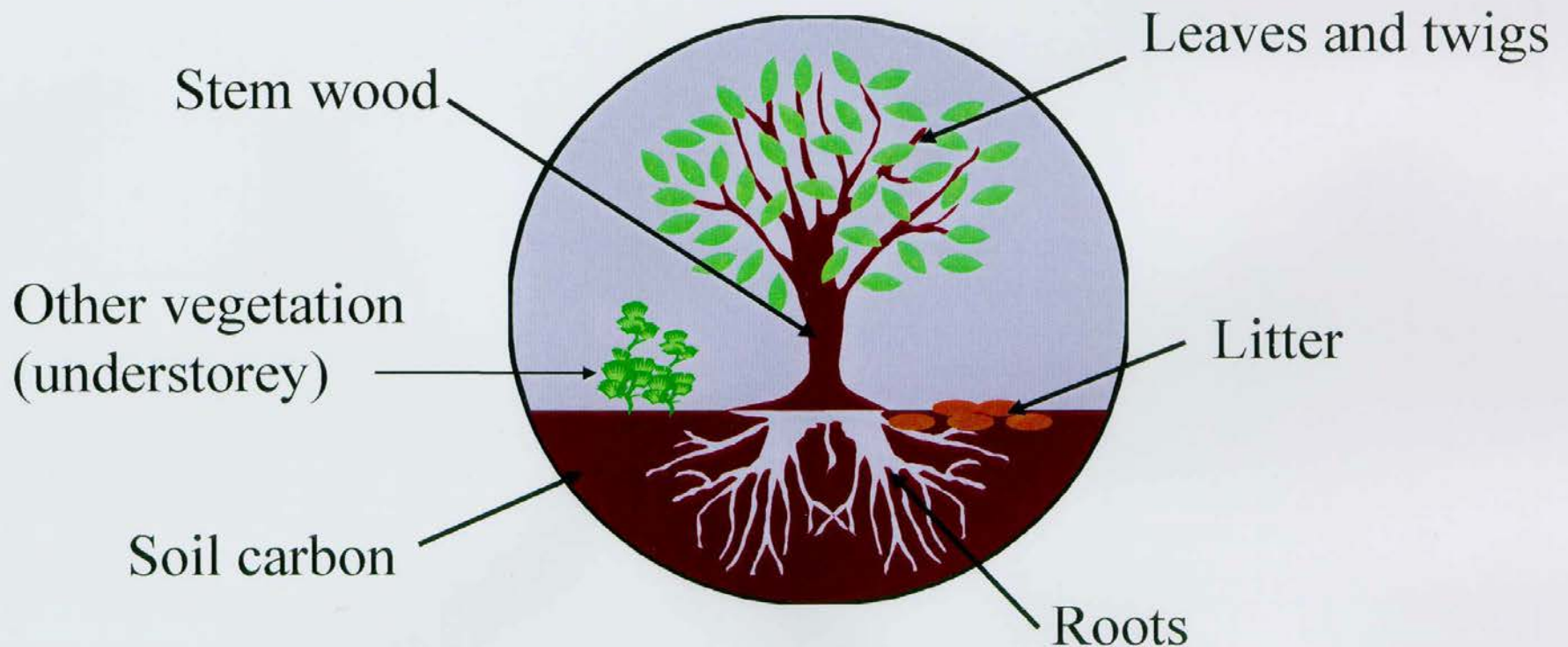


The carbon cycle





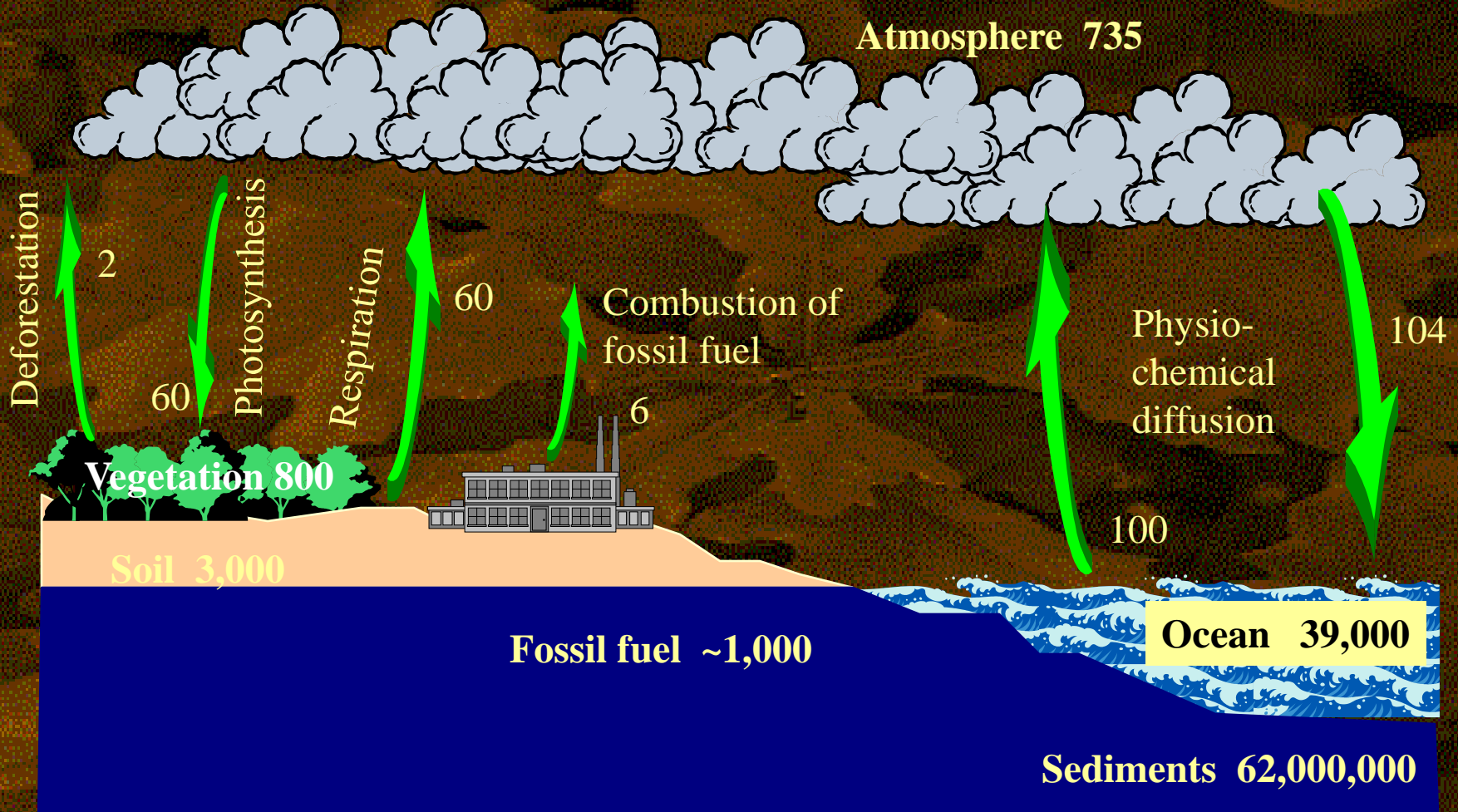
Major pools of forest carbon

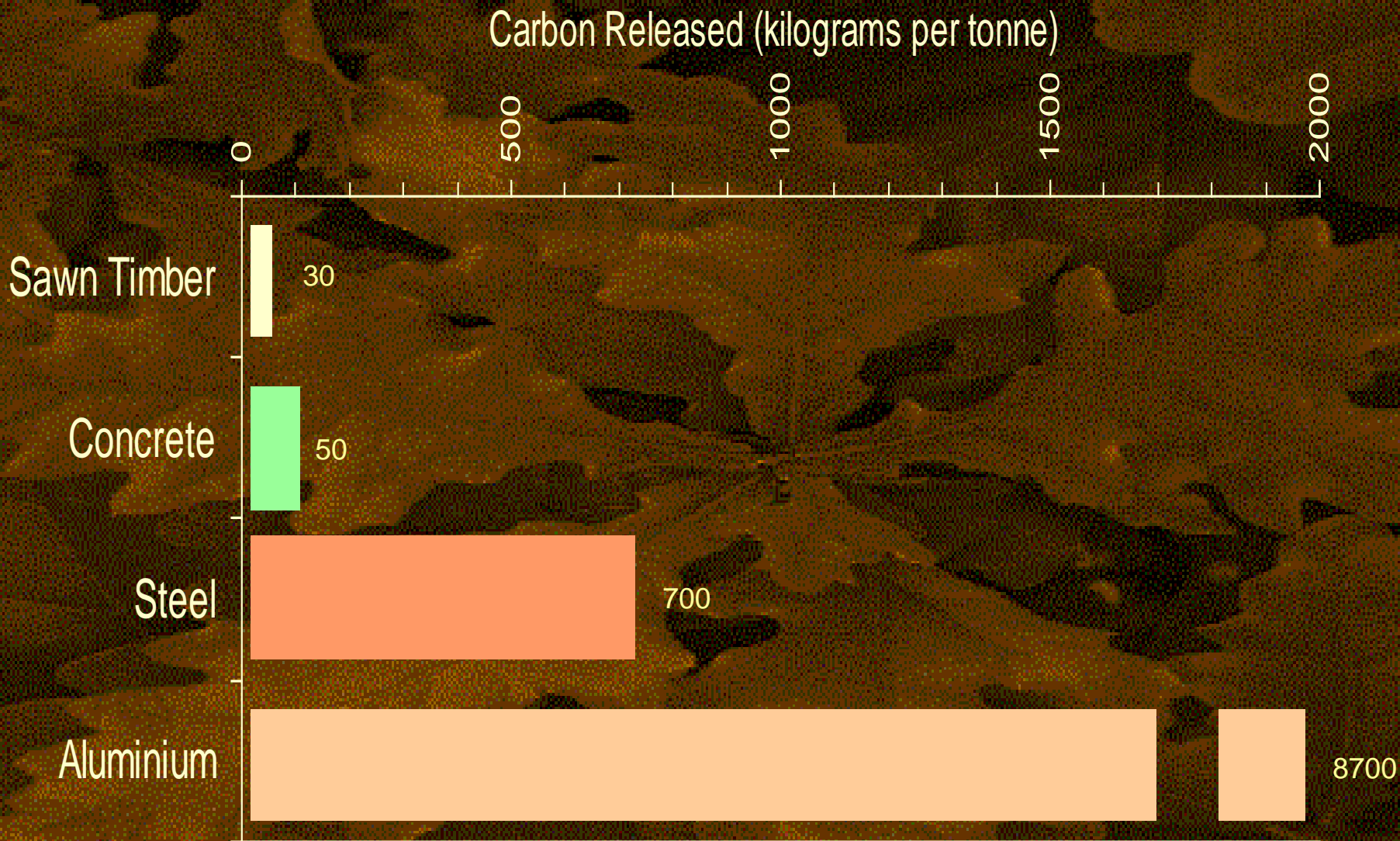




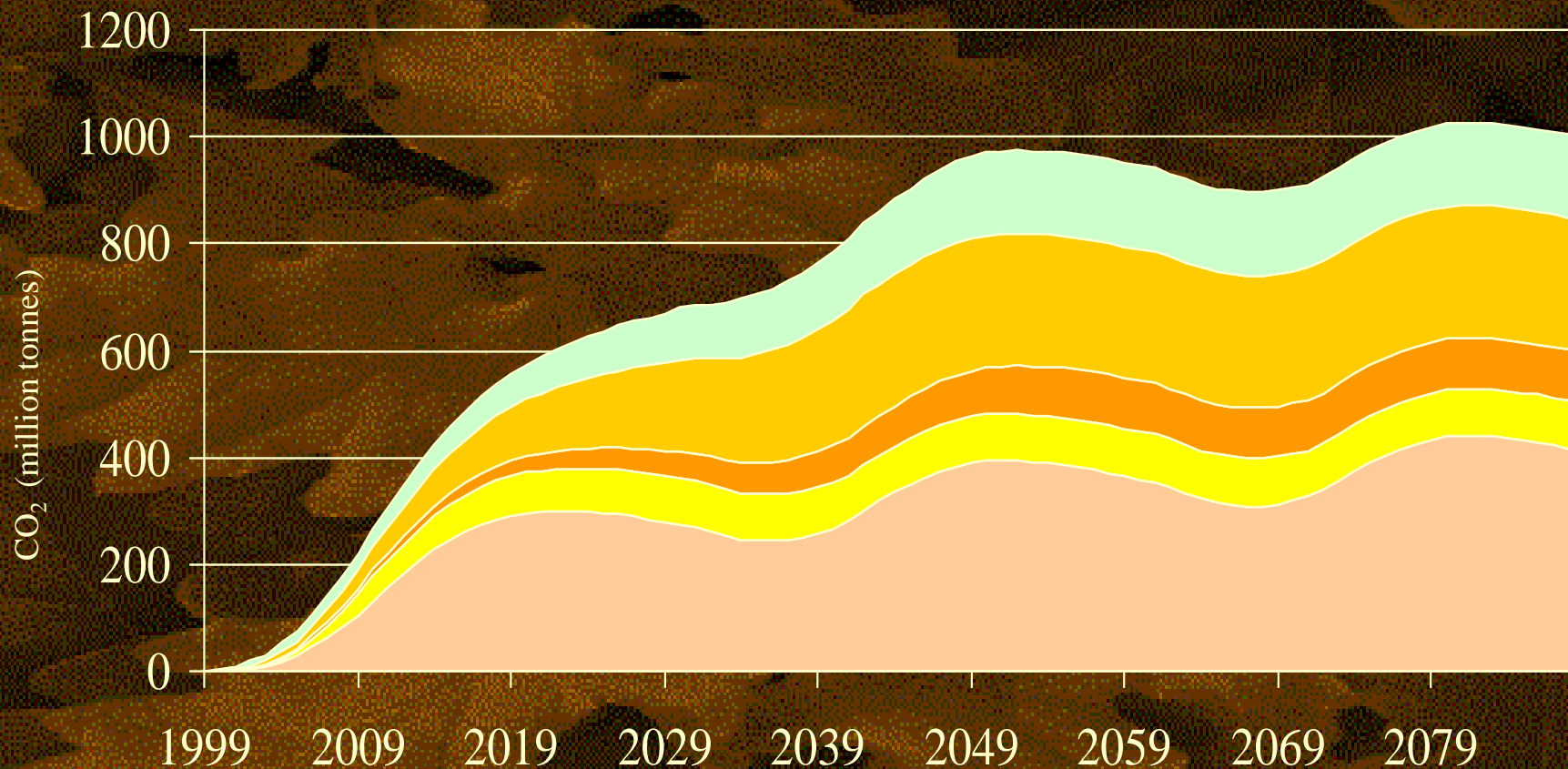


The Carbon Cycle





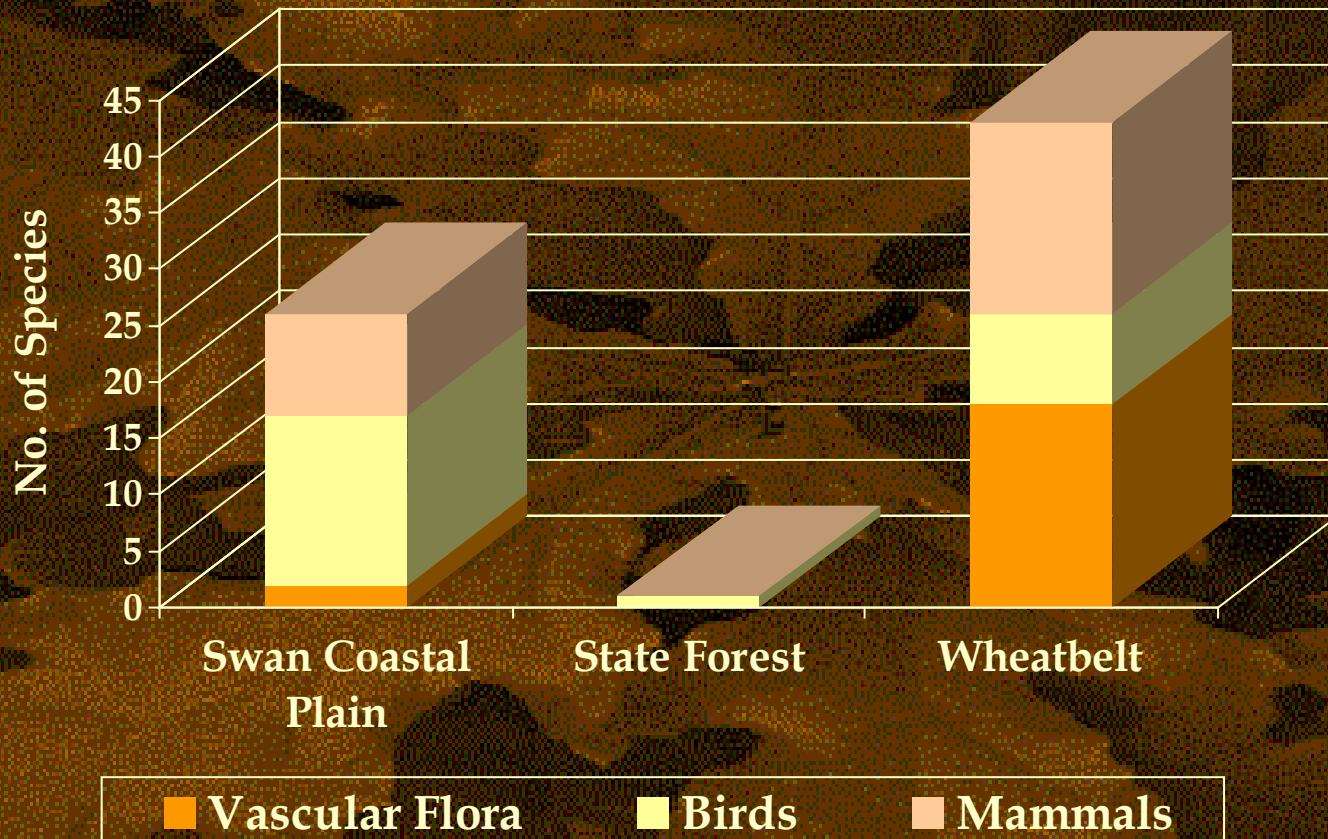
Cumulative CO₂ pool over 90 years



*There is not one plant or
animal in Western
Australia's forests which is
extinct.*

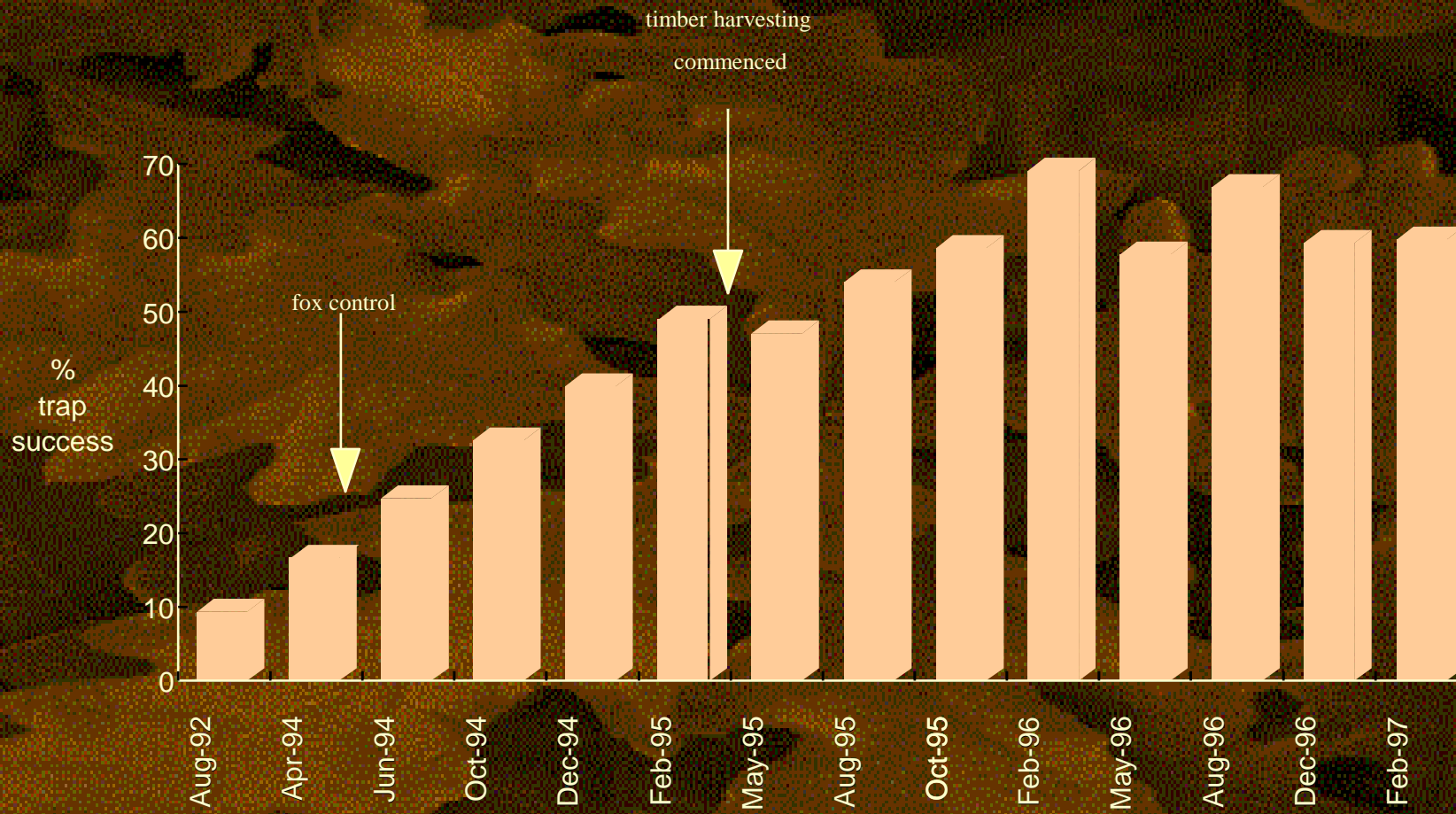
Species Extinctions Since European Settlement in 1829

(After Armstrong and Abbott, 1995)

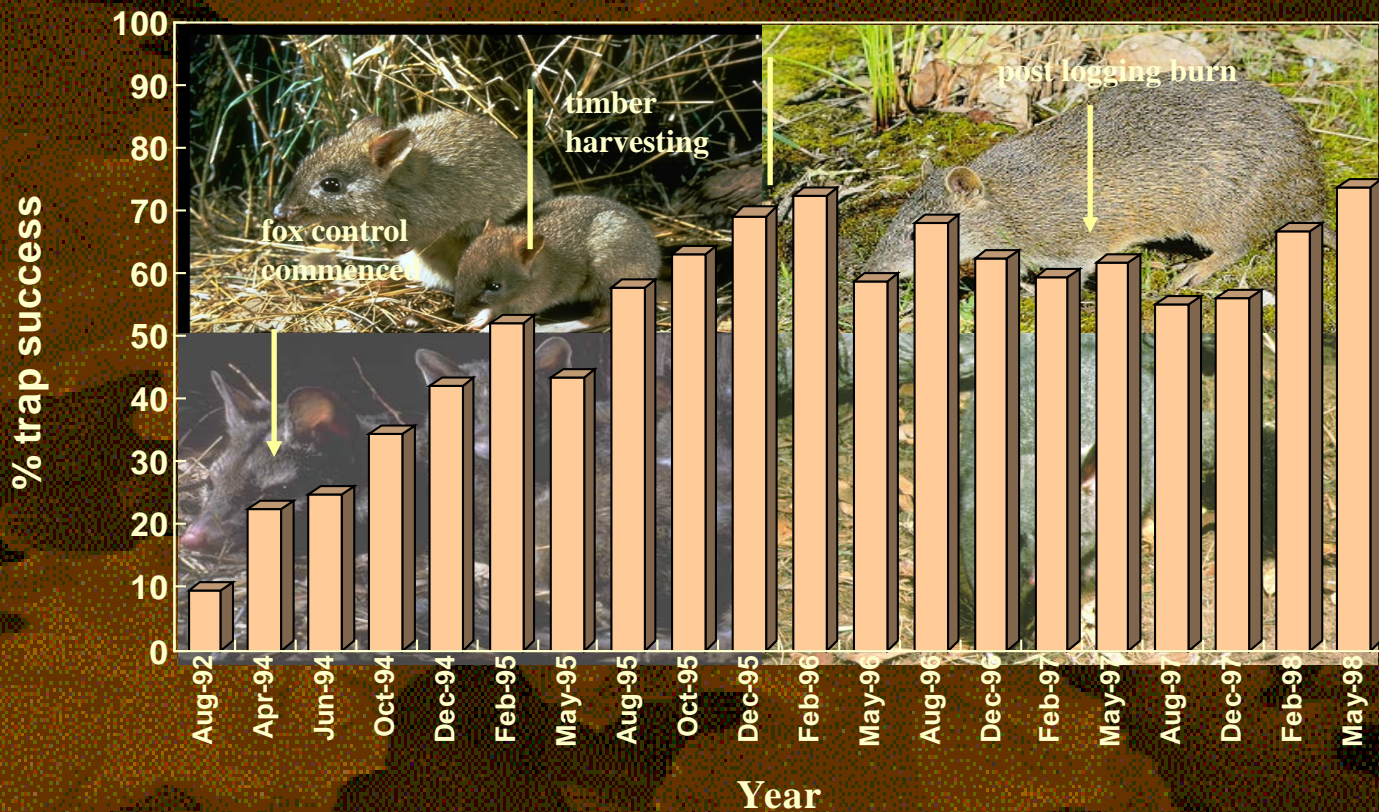




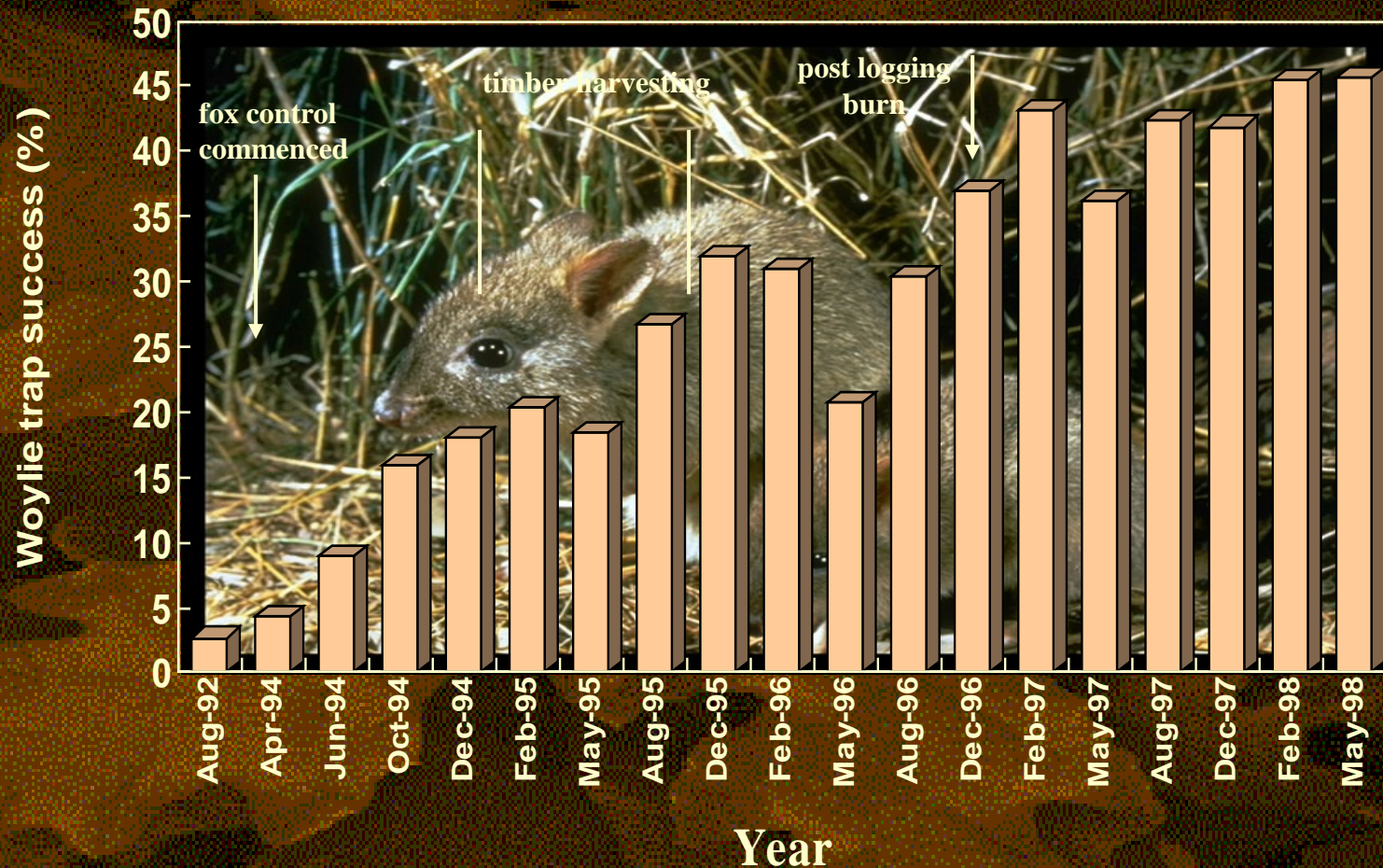
Kingston Timber Harvesting Study - Trap Success Rates for all Medium Sized Mammals along Road Transects



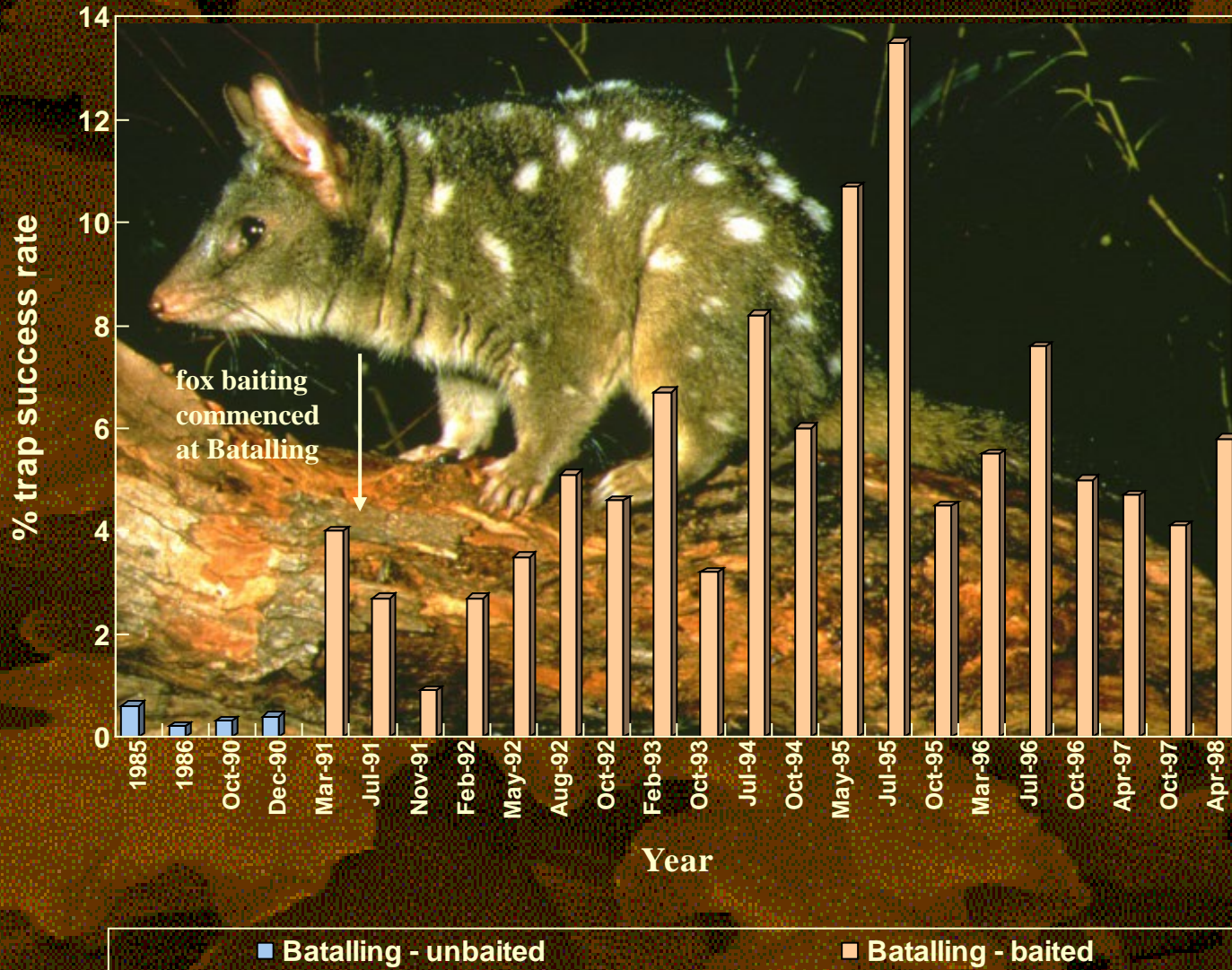
- Kingston Timber Harvesting Study - Trap Success Rates For All Medium Sized Mammals (Woylie, Quenda, Chuditch, Bt Possum) Along Road Transects



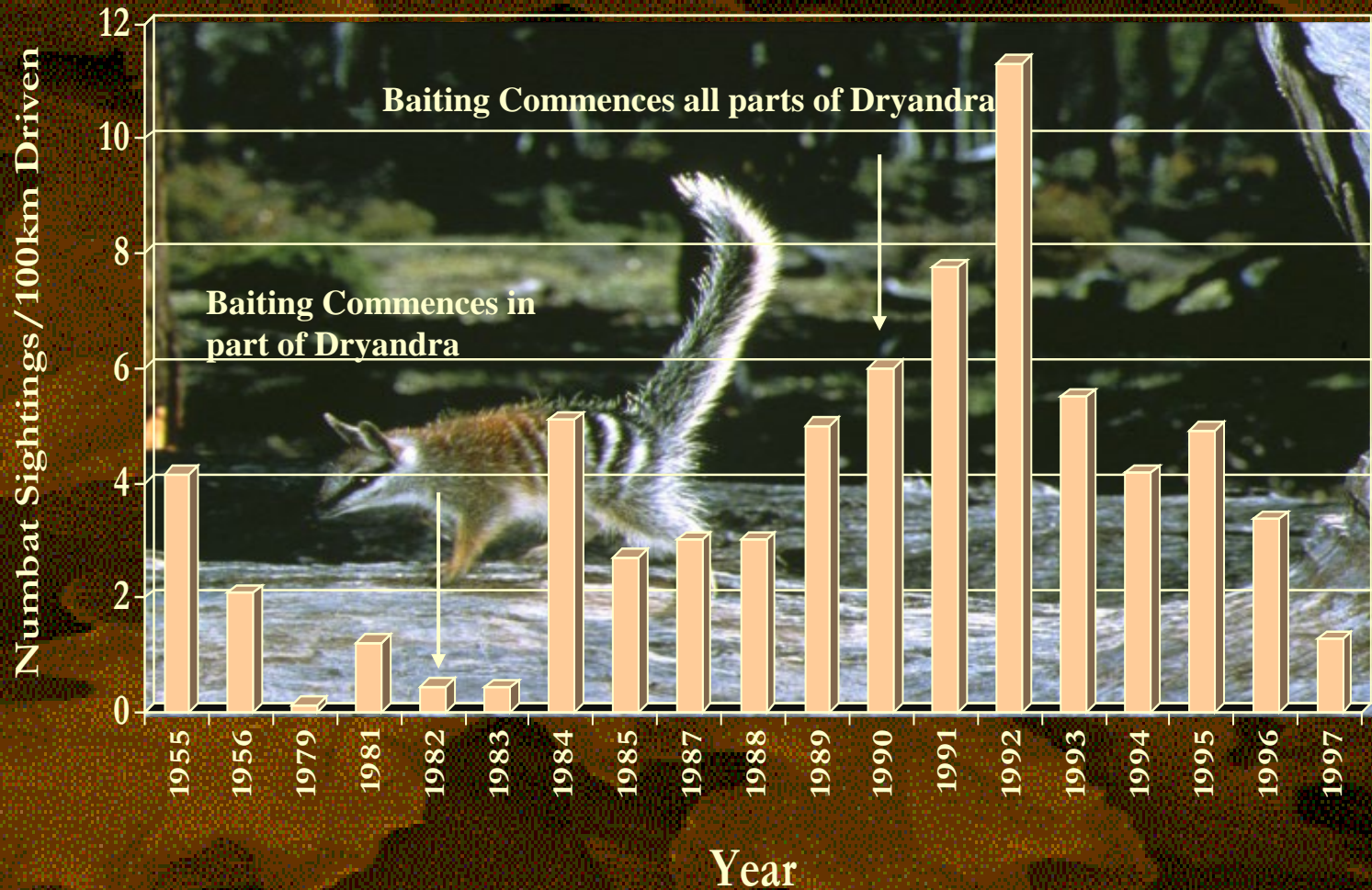
- Kingston Timber Harvesting Study - Trap Success Rates For Woylies Along Road Transects



The impact of fox control on Chuditch at Batalling forest



Numbat Sightings in Dryandra Forest



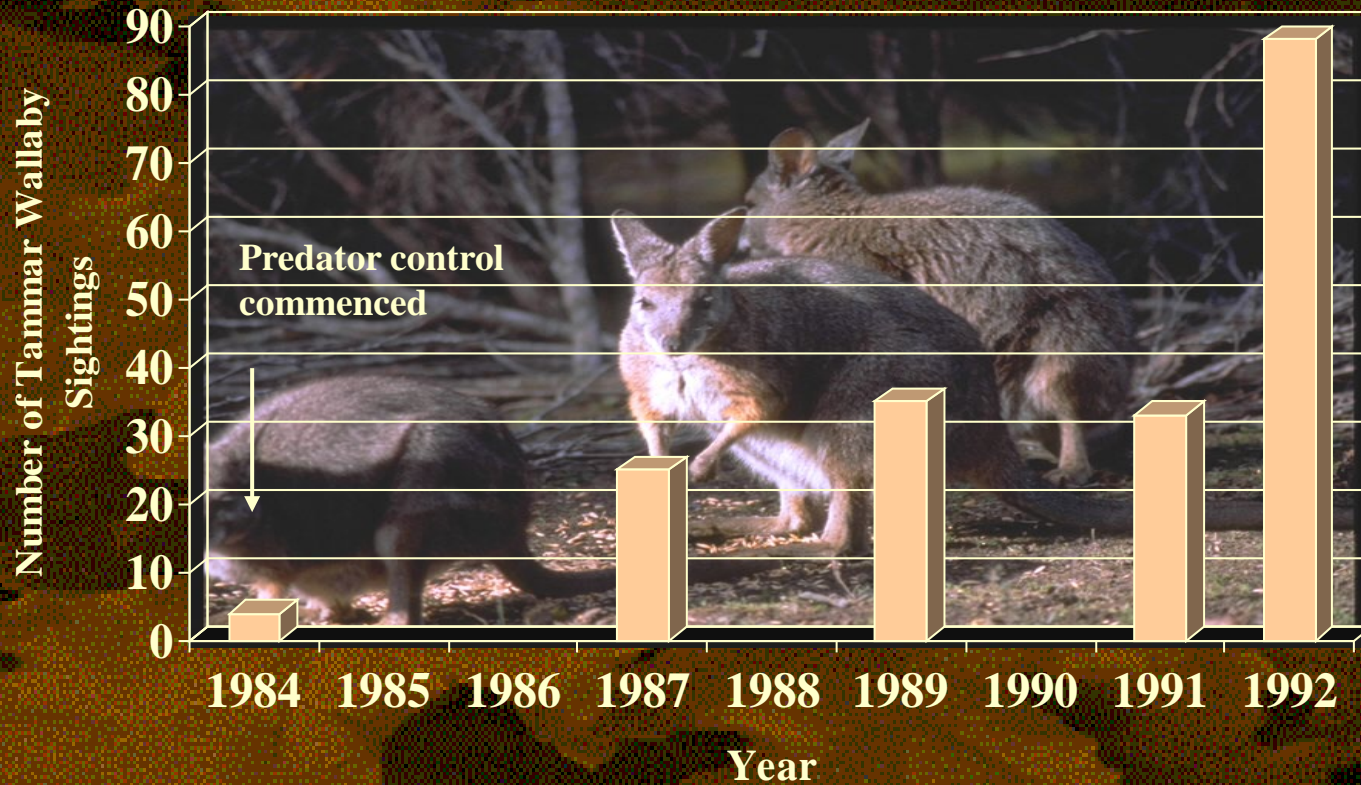
The impact of fox control on Brushtail Possum at Batalling forest



The impact of fox control on Quenda at Batalling forest



Tammar Wallaby Sightings (Tutanning Nature Reserve)



The entire publicly owned forests in Western Australia is being baited by CALM to control foxes.

Three forest dwelling animal species - the woylie, the tamar and the bandicoot - have been removed from the Endangered Species List in the last 18 months because of the success of the Western Shield feral animal control program.



Bibbulmun is on the wrong track

FEW people would disagree that a walk trail through the bush from Perth to Albany is a great concept. Almost everyone likes the idea of enticing people outdoors to experience, at a walking pace, the special magic of WA's wonderful bush.

Getting more people into the bush should also mean more people will want to protect it.

And so the Bibbulmun Track was built and has been in use for many years. Then came the idea of realigning the track.

This was seen as necessary because the original alignment followed too many roads and crossed or ran alongside areas that were devastated by road building, mining, logging or burning carried out with little regard for the track and its users.

The Department of Conservation and Land Management decided that the realigned track would be "purpose built" — it would not follow existing tracks but would be a new track specially constructed to give walkers a "wilderness experience".

This created a philosophical dilemma. In order to give people a wilderness experience in WA's natural environment, should the planners and makers of the realigned track degrade the environment?

Their answer was yes.

In some places, previously intact bush has a new scar and new access for weeds, feral animals, plant diseases (especially *Phytophthora cinnamomi*) and people — on foot and, albeit illegally, on mountain bikes, trail bikes, horses and even possibly 4WDs.

There is also a greater risk of wild-fire.

There are inadequate resources to pay rangers to monitor or police the track and yet the few unspoilt natural places in the South-West are even fewer and the pressures on them greater.

To attract people who want a foot over their heads at night, it was decided to construct shelters every 20km or so.

This sounds fine but again it has been done at the expense of the environment. Every one of these shelters becomes a focal point for environmental problems like soil compaction, erosion, human excreta and fires in the open, even if this is prohibited.

There are serious flaws in the

method of construction. The track runs through previously intact areas, some of which are tough going. So in comes the machinery, with all the attendant problems — a light tractor and mower, a bobcat and even a small bulldozer, which in places scraped bare a strip of earth three metres wide.

All this to give people a wilderness experience!

The response of those responsible is that in a year or two you will not see the damage. This is scarcely the attitude of informed conservationists.

The track passes through several national parks but even a park like Walpole-Nornalup, which supposedly has a legally binding management plan, is not safe. Although the management plan says that, where possible, walk trails will follow existing tracks, the realigned Bibbulmun Track deliberately avoids them.

It cuts a swath through previously unroaded bush and even bush designated as a special conservation zone.

There is a second philosophical dilemma. Should a purpose-built track, created to give people a wilderness experience, avoid unsightly areas and thereby give a false impression of the South-West?

The planners and builders of the realigned track think so and walkers will not see minesites, clearfell coupes, gravel pits, collapsed ecosystems or plots of exotics.

A 400m buffer strip will be retained along the track so that unpleasant sights will not spoil the experience.

The result is that the realigned Bibbulmun Track badly misrepresents the reality of our South-West bush and seems designed to create the illusion that all is well in the bush.

The realigned Bibbulmun Track has been built and opened with great fanfare and maximum publicity.

On the surface, it looks great and anyone who dares question the dubious philosophy underlying it or the flaws in planning and construction can be portrayed as a wet blanket.

Unfortunately, once again perception has replaced reality, and it is our natural environment that has paid the price.

Beth Schultz

Dr Schultz is vice president of the Conservation Council.

CALM sharefarming plan 'financial disaster': Shultz

THE Conservation and Land Management Department's new sharefarming scheme has been labelled a financial disaster for taxpayers.

Dr Seth Shultz, WA Conservation Council vice-president, said the emergence of CALM as a commercial entrepreneur should set alarm bells ringing.

"CALM has shown it has little business sense or commercial expertise," Dr Shultz said.

"For example, last year it sold most of the State's first grade kauri sawlogs worth \$75 per cubic metre for \$25 per cubic metre; and it was willing to sell first grade sawlogs to the big

companies for less than it gets from small sawmills for second grade logs.

"Under the sharefarming scheme CALM offers farmers annuities well above anything offered by commercial companies.

"How much is CALM committing itself to pay out over the next 30 years and is this amount commercially justified? Has anyone outside CALM looked at the economics of the scheme?"

Dr Shultz said that on the information she had, the scheme would be a financial disaster for taxpayers.

"The public has the right to

know about all this wheeling and dealing because it will have to foot the bill," she added.

"We were told WA Inc was dead. It has been resurrected in a green shroud."

In reply, CALM executive director, Dr Syd Siga said he wondered what his department had to do to satisfy Dr Shultz.

"Dr Shultz's major purpose in life seems to be knocking CALM," Dr Siga said.

He accused Dr Shultz of ignoring the fact CALM had planted 13 million trees on cleared agricultural land.

"In addition to the proven huge economic impact the scheme will have a big impact on the environment," Dr Siga said.

"The scheme has been subject to detailed analysis from sources outside the industry and so far \$2 million has been injected from the private sector."

Dr Siga said that on the one hand Dr Shultz wanted to reverse environmental degradation yet on the other she was critical of CALM's conservation.

Yet, he said, CALM's scheme would reverse degradation and increase diversification of hardwoods.

"I, and I am sure many South Western Times readers, are tired of Dr Shultz's personal campaign of denigration and wish she would move onto something else."

Forest walks project comes under attack



THE Valley of the Giants 52 million tourist walks project near Walpole has come under attack by conservationists. The South Coast Environmental Centre has been particularly vocal in its opposition.

By ANNA PASTEUR

Tourism industry criticises Valley of the Giants project

By CARYN COATNEY

THE Department of Conservation and Land Management has been further criticised by the local tourism industry over its Valley of the Giants forest project.

The main concern raised during a telephone survey was about CALM's possible foray into business ventures.

The survey was conducted by the Department at the suggestion of CALM Walpole district manager Campbell who said that the criticism of the project was widespread.

CALM

THE cost of crew new tourism facilities the Valley of the Giants forest has been revised after repeated spending of the Department of Conservation and Land Management.

CALM ventures condemned

By CARYN COATNEY

WALPOLE tourist operators have called on the Department of Conservation and Land Management not to pursue commercial ventures in the Valley of the Giants forest project.

Greg Muir, district manager of the Department of Conservation and Land Management, said that the project was a joint venture between the State and private industry.

But critics might indicate a demand for a restaurant or cafe in the forest. If an eating facility was built it would need to comply with CALM's environmental conditions and management plans. "There would be equity in agriculture," Mr Muir said.

Walpole, it's not appropriate. Former CALM research scientist Jim Goodall said public services were behaving like politicians, reminiscent of WA Inc. Mr Goodall, the owner of the Ecopark, feared the Valley of the Giants would change the name of his business when it registered its trademark.

Mr Muir said the Government was considering appointing a franchisee (but if there ever is there will be a process of advertising and public tender). Mr Muir said the Government had a role in promoting co-operation.

WA Forest Alliance spokesman Paul Llewellyn said the organisation should not be involved in ventures which had little to do with its charter of protecting the environment. "If it was an urban park like Kings Park in Perth, I can understand why they would need facilities."

Giants protest plan scrapped

By CARYN COATNEY

ENVIRONMENTALISTS have been won over by the popularity of the new walkways through the Valley of the Giants.

On the eve of the official opening of the walkways through the forest, environmentalists have dropped their protest against the Department of Conservation and Land Management's facility.

David Goodall, local environmentalist, said that the walkways would be a boon for the tourism industry and that the Department of Conservation and Land Management was to be congratulated for its decision to build a walkway through the forest.

There were concerned CALM's commitment to building a walkway through the forest and entering into similar commercial ventures would mean the wilderness experience for tourists.

Mr Evans said he had seen a negative impact in visitors to the Valley of the Giants since the walkways opened in the public last month.

Giants since the walkways opened in the public last month. It could have negative effects if we seen to be criticising all of CALM's actions," he said.

"When CALM does things well, we have to let them know."

Mr Evans said environmentalists supported CALM's attempts to raise money from some tourists to finance the project because it raised the profile of the forest.

But they were concerned CALM intended to use the single forest as a model for other forests in the State.

Mr Evans is looking to raise with the Department of Conservation and Land Management during his Saturday visit to the forest.

Mr Evans will be joined by other environmentalists and CALM officials. The discussion will be held in the forest on Saturday.

It is scheduled to re-open in July with new tree-planting and a shelter where picnic tables and souvenirs are already registered.

Mr Muir said the Government and private industry were co-operating with the project. He said the project was a joint venture between the State and private industry.

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Forest project attacked

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It is not the critic who counts, nor the man who points out how the strong man stumbled, or where the doer of deeds could have done better. The credit belongs to the man who is actually in the arena; whose face is marred by dust and sweat and blood; who strives valiantly; who errs and comes short again and again; who knows great enthusiasms, great devotions, who spends himself in worthy cause; who, at the worst, if he fails at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat.

Quoted from

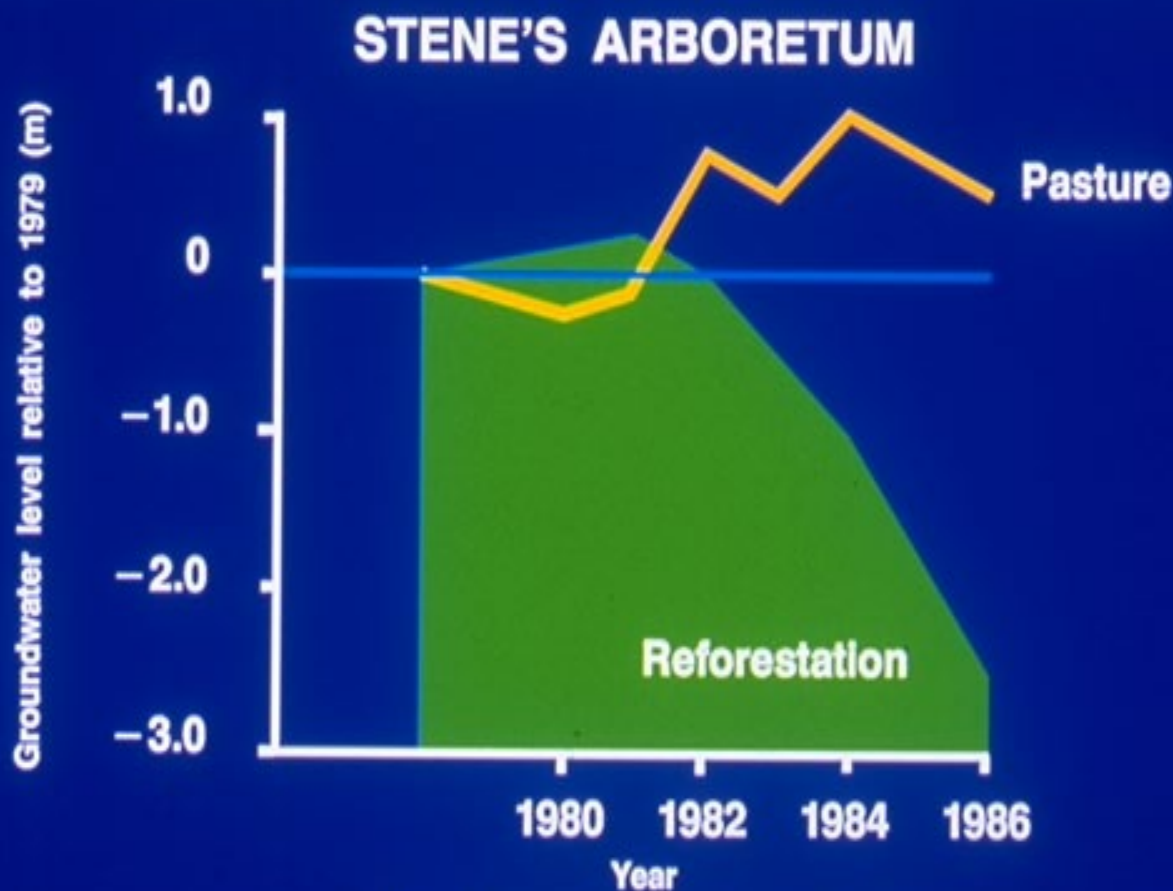
John S D Eisenhower, *The Bitter Woods* (1969)
and attributed to Theodore Roosevelt







THE EFFECT OF TREE CROPS ON WATER TABLE LEVELS



Water Authority of Western Australia
July 1989
Report No. WS 33

Carbon Released (kilograms per tonne)



Sawn Timber

30

Concrete

50

Steel

700

Aluminium

8700



Rainbow Trail - Pemberton (1934), 4 year old karri



Rainbow Trail - Pemberton (1984), 50 year old karri



Rainbow Trail - Pemberton (1998), 64 year old karri



