

# Forests and Water Policy in Australia

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Resources**

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# Outline

Some National Context

Forest and Water Policy in Australia

Case Study 1 – The Green Triangle  
Relevant Biogeography  
Underpinning Science  
Policy Response

Case Study 2 – South Western Australia



# Some National Context

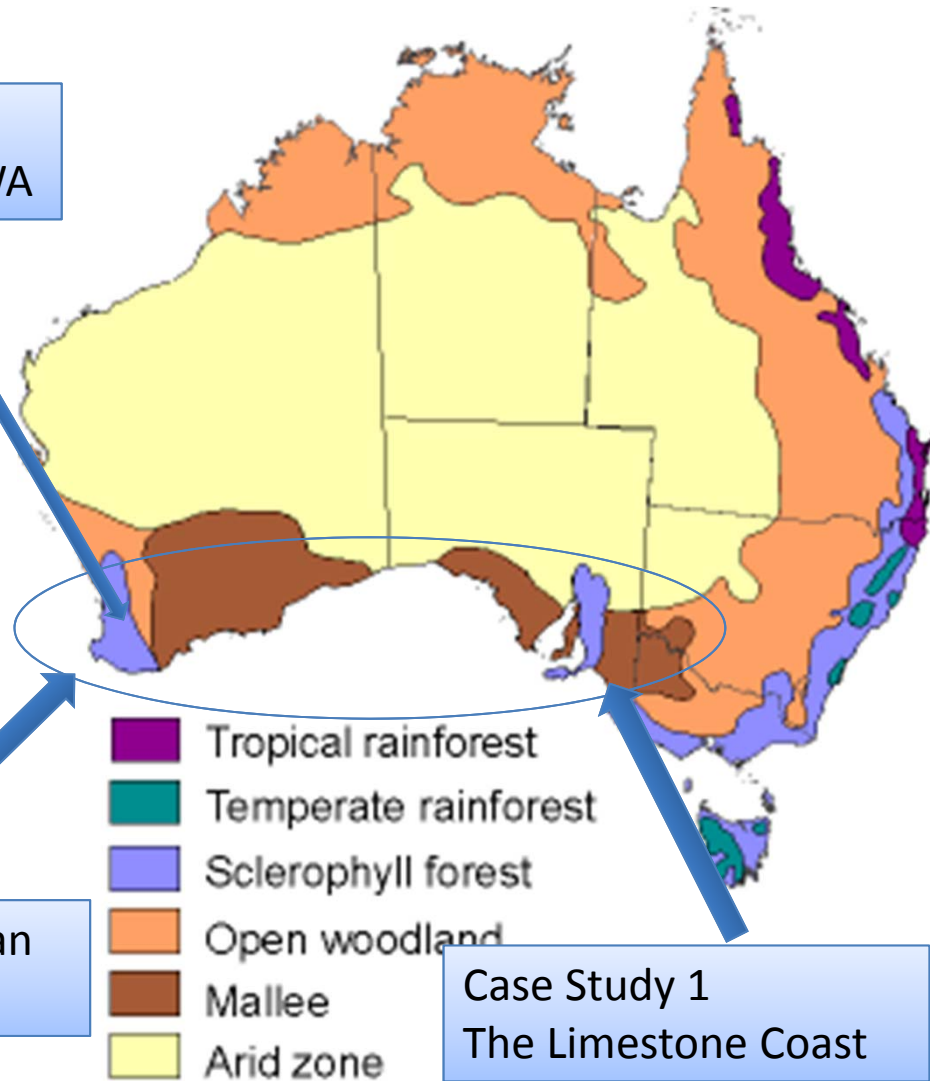
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Case Study 2  
The South West of WA

Native Forest – 148 MHa

Commercial Plantations – 2 MHa

The Mediterranean  
Climate Region



Case Study 1  
The Limestone Coast

## Some National Context

Land and Water Resources – State Government  
Some Responsibilities Delegated to Local Government

(Administering Federal and State Legislation)

## Recent National Responses

Water Act 2007 (Commonwealth  
Murray Darling Basin Water Plan)

National Water Initiative  
Plantations an Interception Activity

# National Water Initiative

The National Water Initiative aims to:

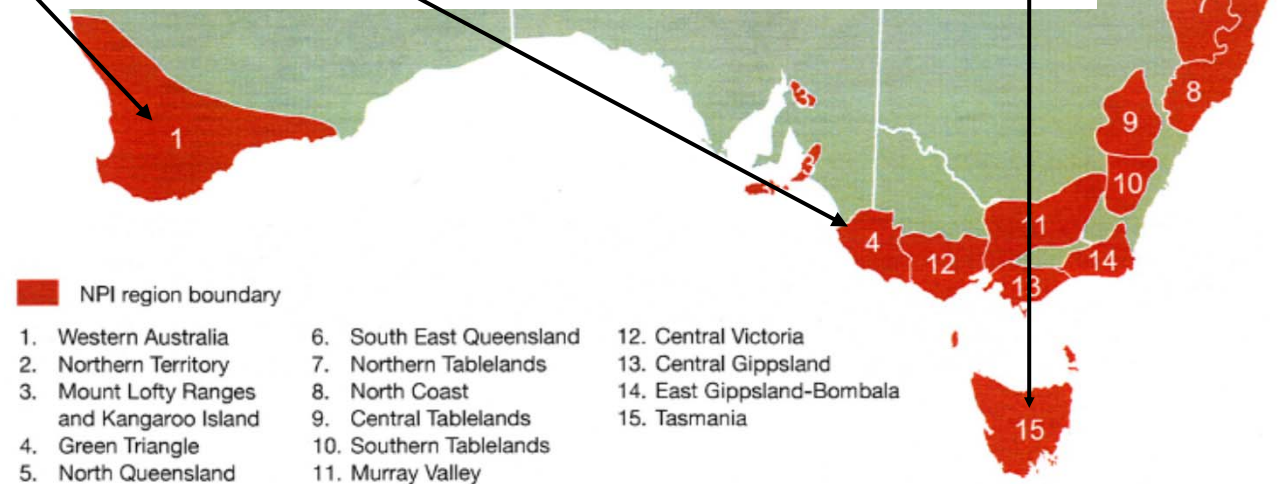
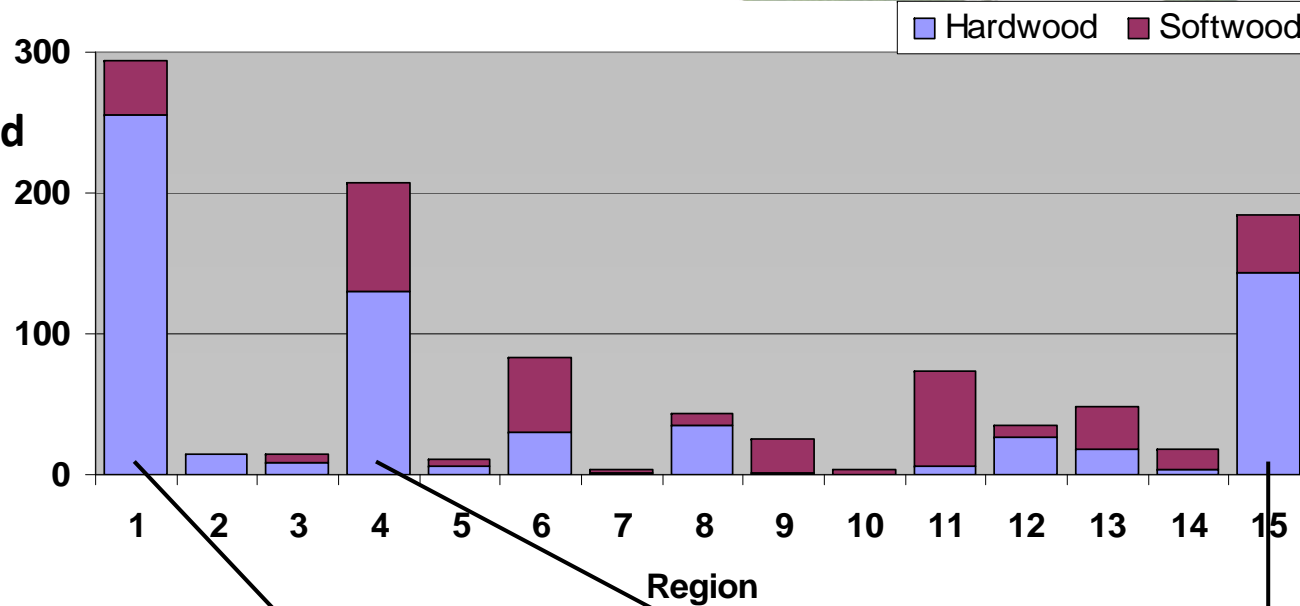
- Restore sustainable water balance to over-allocated systems,
- Trade water to achieve most profitable use and environmental outcomes
- Increase security of water access entitlements
- Assess impacts on surface and groundwater resource – not rainfall
- Address land use change – not current land use

## Interception

55. The Parties recognise that a number of land use change activities have potential to intercept significant volumes of surface and/or ground water now and in the future. Examples of such activities that are of concern, many of which are currently undertaken without a water access entitlement, include:
- i) farm dams and bores;
  - ii) intercepting and storing of overland flows; and
  - iii) large-scale plantation forestry.
56. The Parties also recognise that if these activities are not subject to some form of planning and regulation, they present a risk to the future integrity of water access entitlements and the achievement of environmental objectives for water systems. The intention is therefore to assess the significance of such activities on catchments and aquifers, based on an understanding of the total water cycle, the economic and environmental costs and benefits of the activities of concern, and to apply appropriate

# Land Use Change 1991-2005

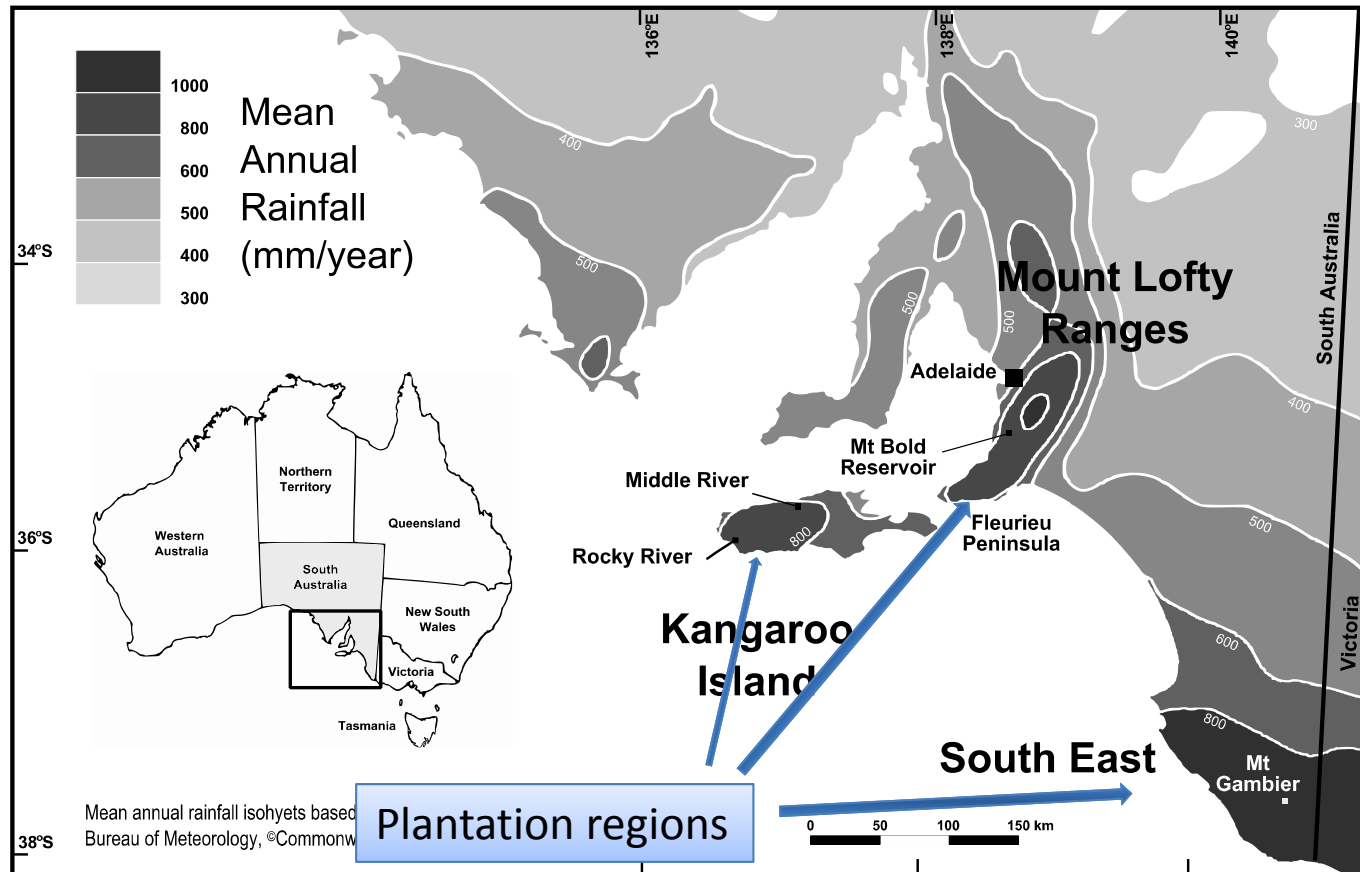
Area planted  
1991-2005  
('000 ha)



From Mark Parsons, BRS  
NPI 2006



## The Response in South Australia



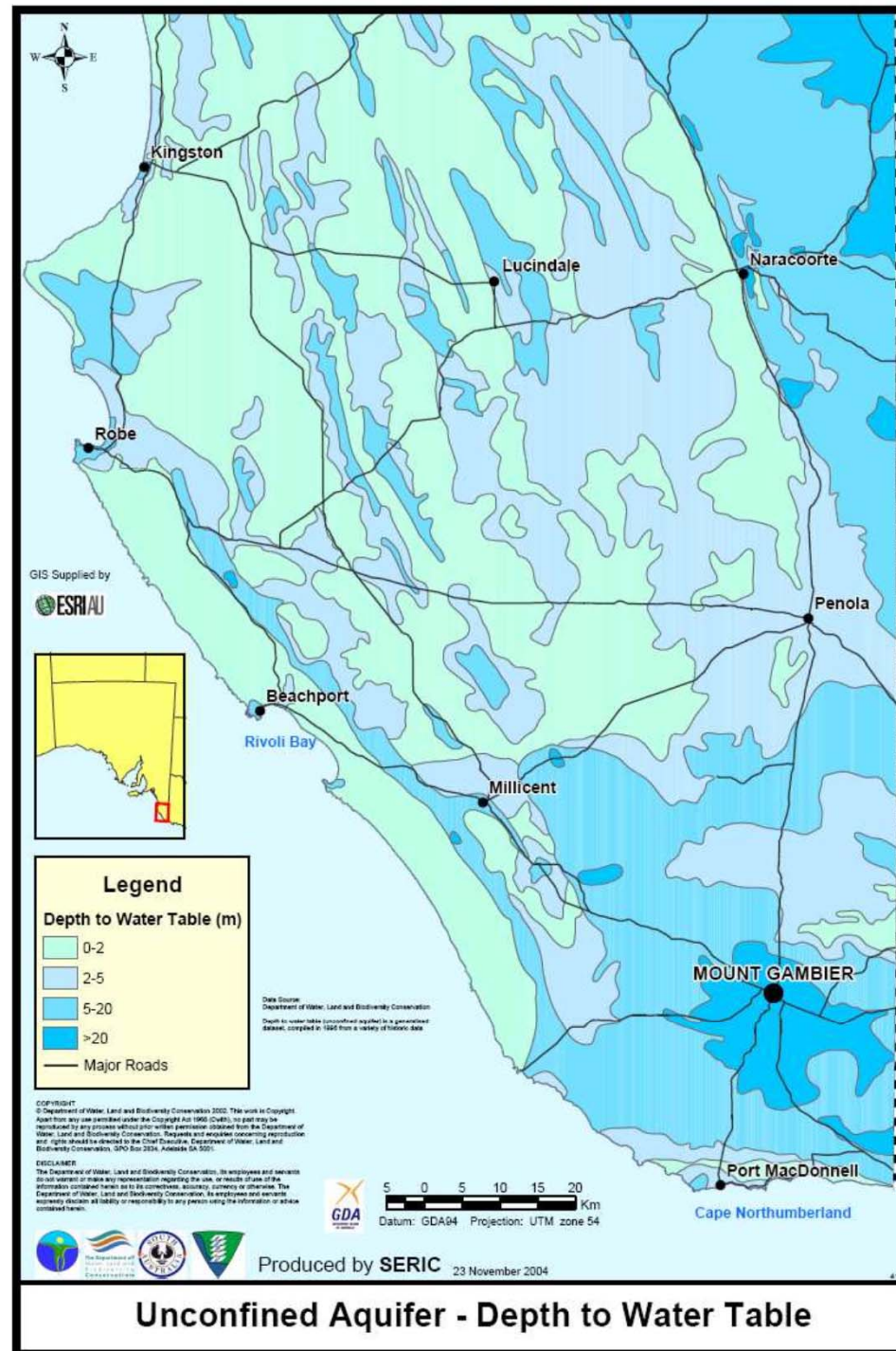
## Case Study 1 – The Limestone Coast

South East SA

Large Unconfined Aquifer

Important for Agriculture

Blue Gum Plantations  
Expanded in the 1990's and  
early 21<sup>st</sup> Century



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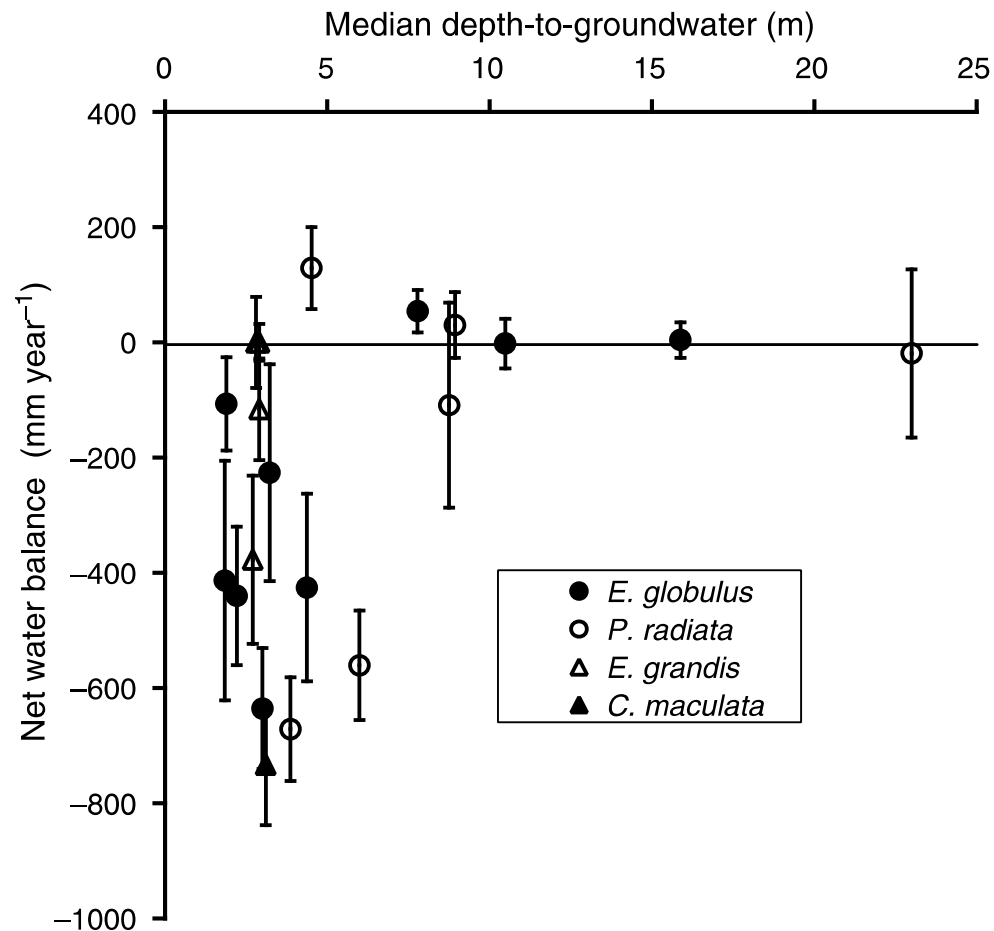
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[www.med.forestweek.org](http://www.med.forestweek.org)



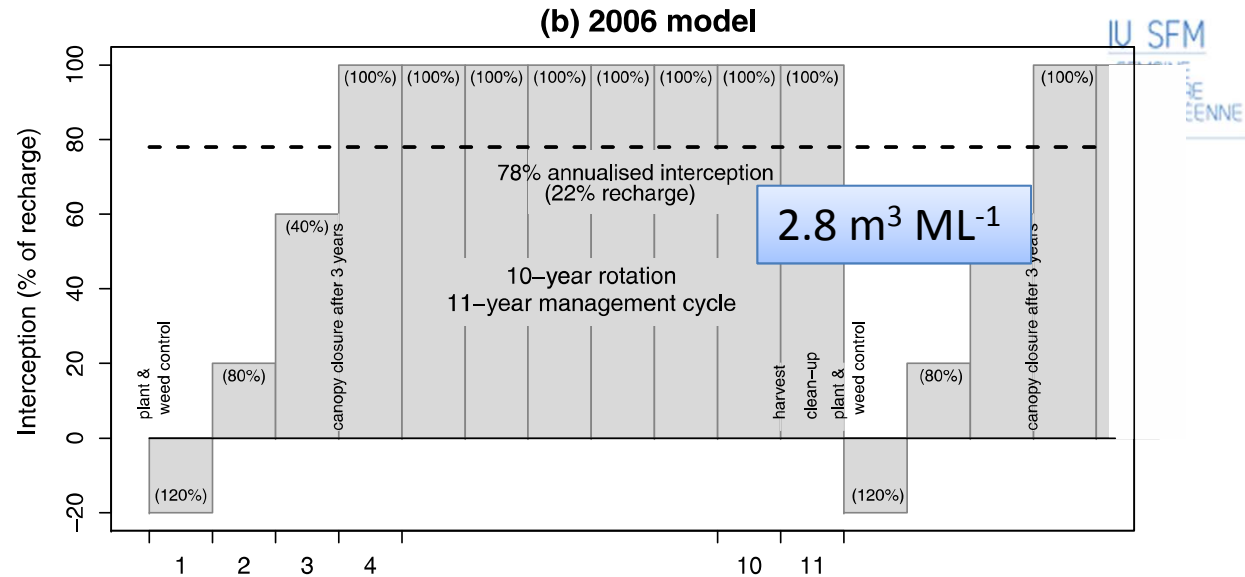
# The Science



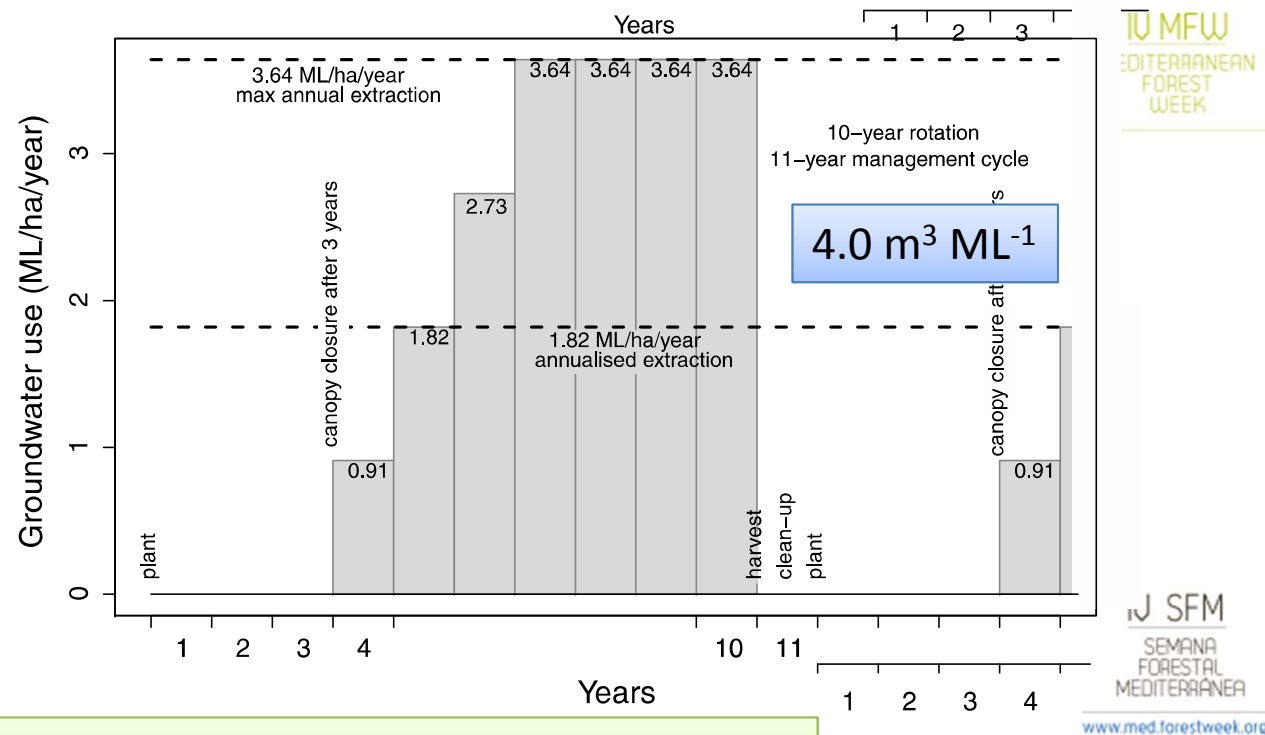
Benyon et al. 2006. Australian Journal of Botany 54: 181-192

# The SA Policy

## Interception Only



## Groundwater Discharge



# South Western Australia – A Potted Biogeography



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FOREST  
WEEK



# Regional issues for plantations, water and policy

## South-west WA

### (i) Darling Range

- **Surface run-off and stream flow (unregulated)**
- 100,000 ha of blue gum
- Guarantee of supply to existing irrigated ag and horticulture

### (ii) Swan coastal plain

- **Groundwater resource** supplying 80% of Perth' s water
- 100,000 ha of pines (radiata and maritime)
- Blue gums

### (iii) Scott River Plain

- **Groundwater resource** and acid sulphate soils
- 30,000 ha of blue gum

### (iv) Great Southern region

- **Surface run-off and stream flow (unregulated)**
- 100,000 ha of blue gums
- Potential for future conflict over surface water resources in Albany region

# Summary

- Water and Land Management State Government Responsibilities
- National policy and legislation applies
- Natural forests occupy the nations fresh water supply catchments
- NWI – tackling large scale plantation establishment
- Only South Australia has moved to regulate plantation water use
- In South Western Australia – land salinity, river salinity, water security, plantations and native forest management (regional response)





IV SFM

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17-20 mars | març | marzo 2015  
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