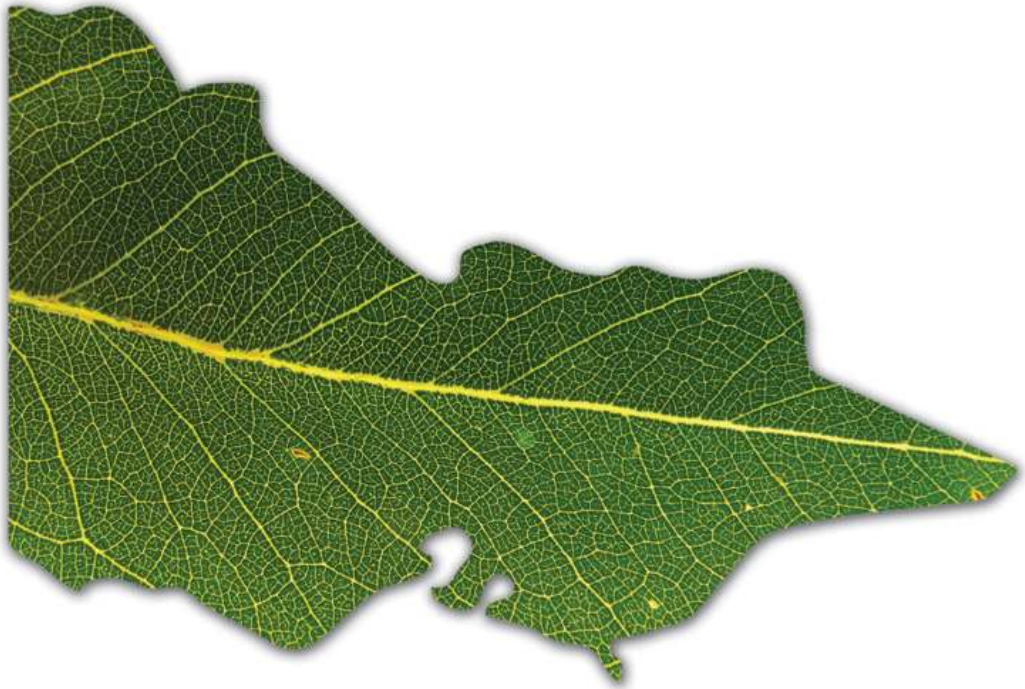

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The Victoria Naturally Alliance is led by the Victorian National Parks Association

“A Natural Investment”

Using a case study approach:

1. What is the investment needed for large scale protection and restoration of habitat?
2. What are the returns on this investment?

- What are the area targets?
- What are the costs of “restoration”?
- What is the return from carbon?
- What is the impact of change of land use?
- What impact on regional economic activity?

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Why are we doing this?

- There is a crisis in the health of Victoria's biodiversity

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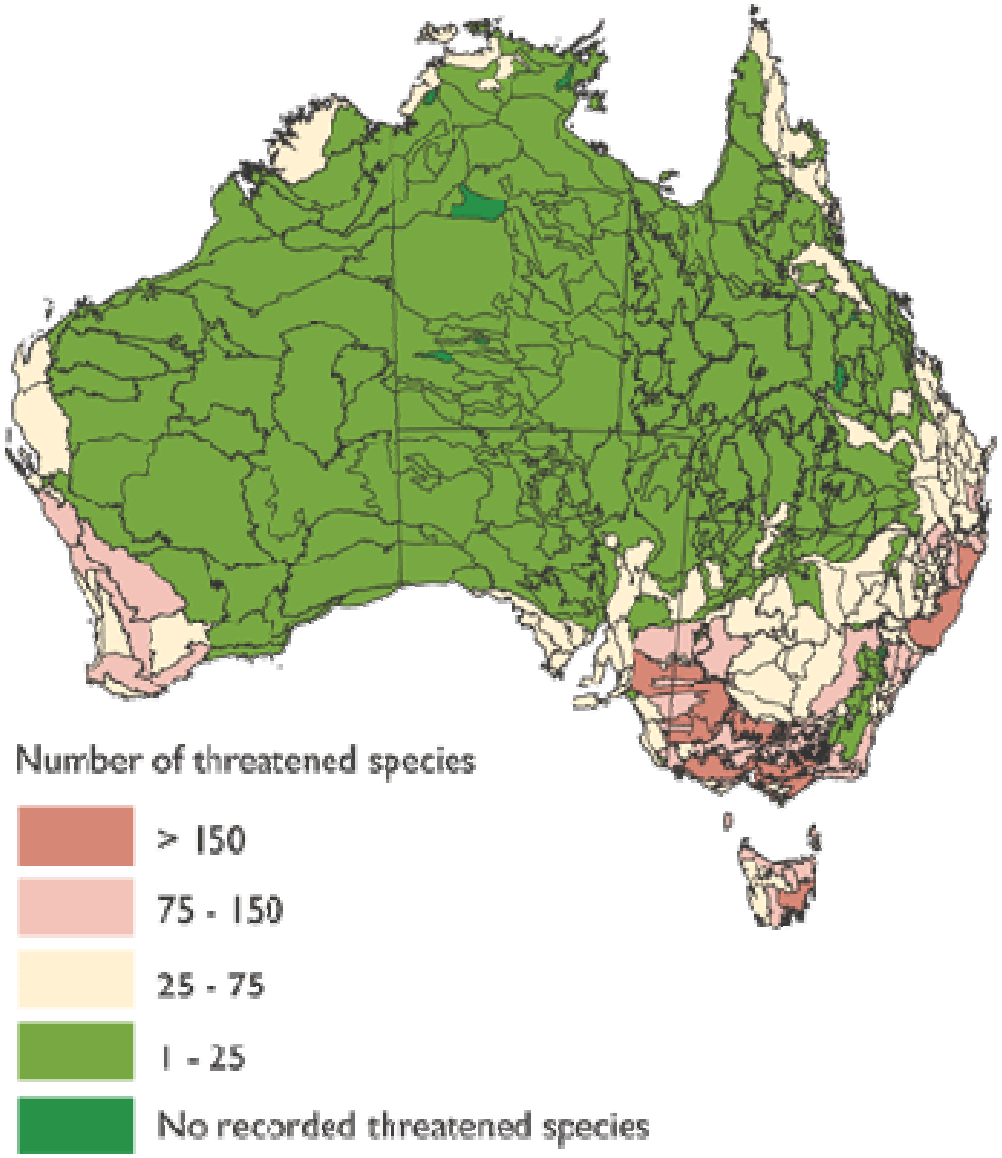
Threatened species

Victoria:

44% native plants, and

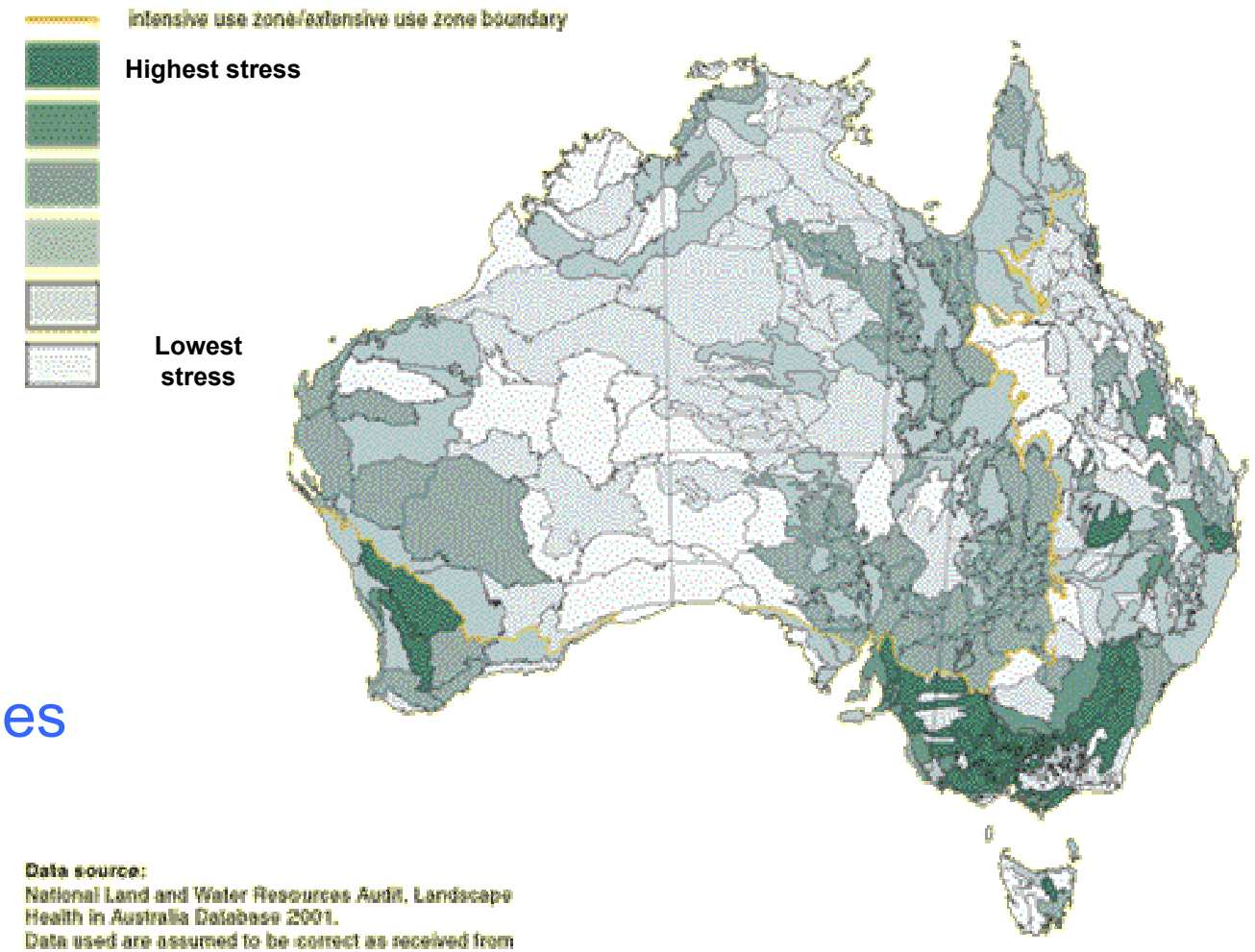
30% of native animals extinct or threatened



Landscape stress

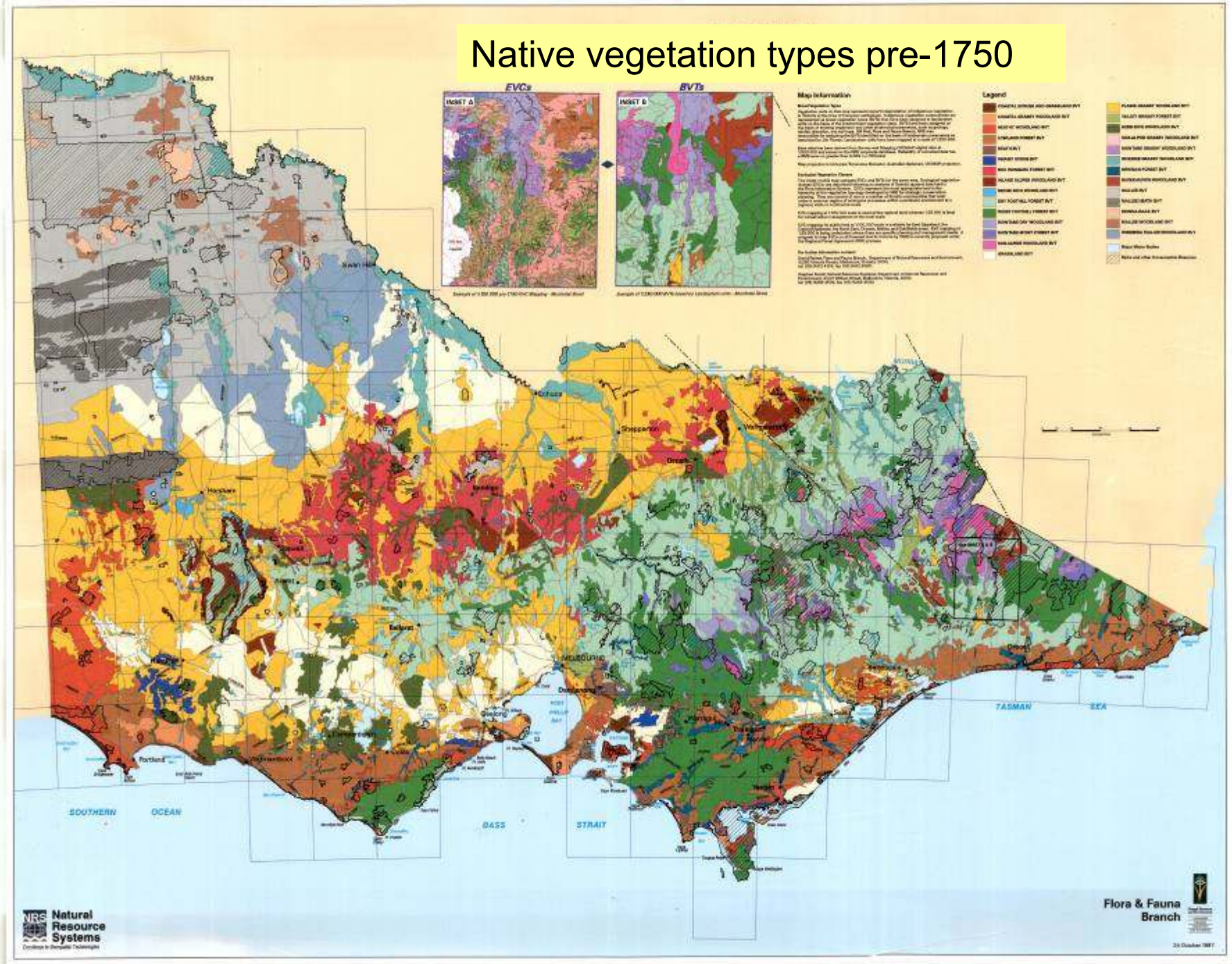
Stress index includes:

- Vegetation clearing
- Lack of water
- Salinity
- Pests and weeds
- Threatened species and ecosystems

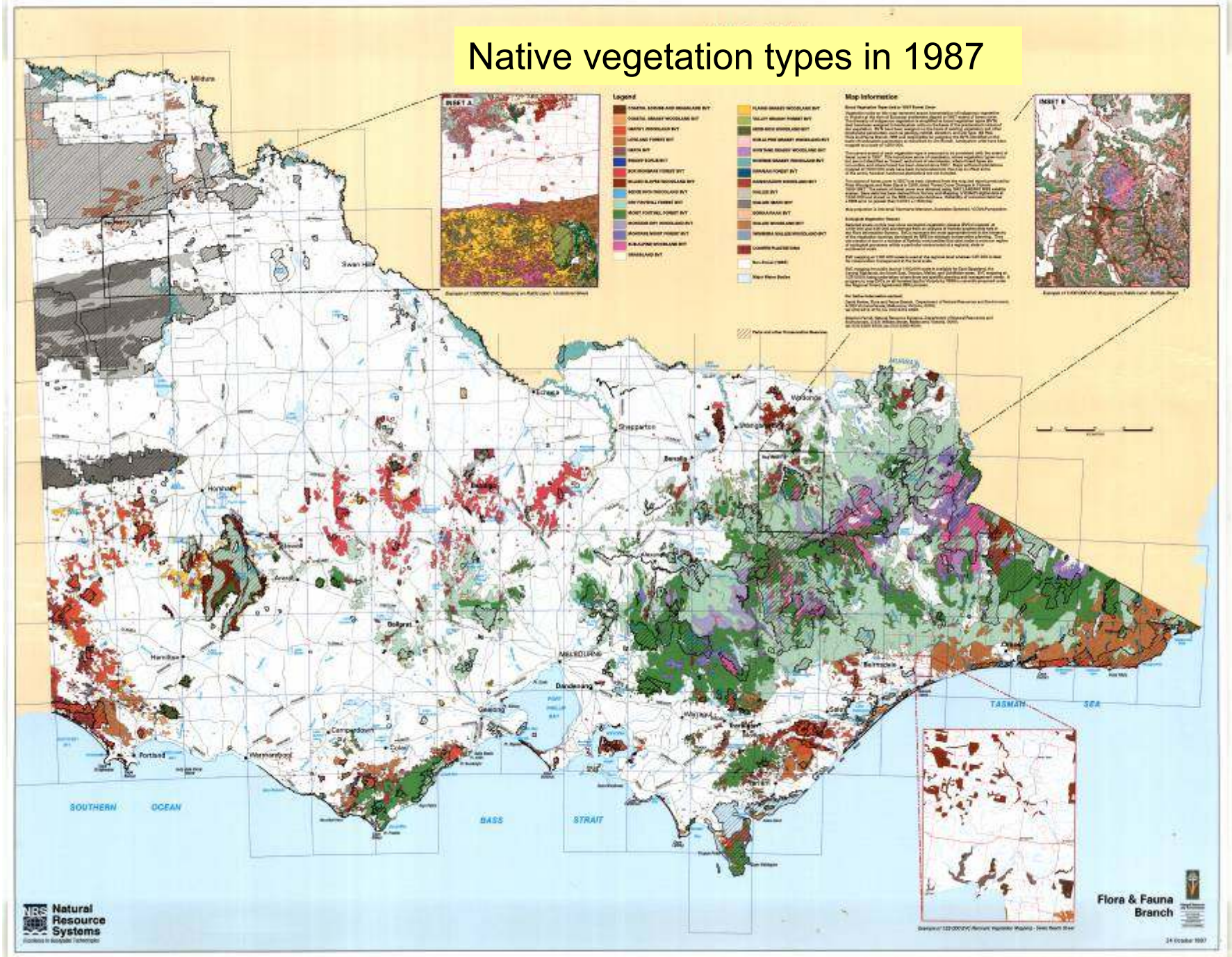


Data source:
National Land and Water Resources Audit, Landscape Health in Australia Database 2001.
Data used are assumed to be correct as received from the data suppliers.

Native vegetation types pre-1750



Native vegetation types in 1987



The need for action:

Science [1] tells us to implement 'connectivity conservation' including:

- Protecting remnant vegetation
- "Restoring" the quality of the veg
- "Connecting" the remnants

[1] E.g. Mackey, B. et al, 2010, *Connectivity conservation and the Great Eastern Ranges corridor*. Independent report to the Interstate Agency Working Group. And many others.

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The White Paper on land and biodiversity:

Nossal: "*Time for business as usual is over..*"

Requires: "..*a significant increase in shared investment, action and cooperation over the next 50 years or more*" (DSE, 2009, p15).

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The case study:

The Victorian section of Habitat 141 south of Big Desert

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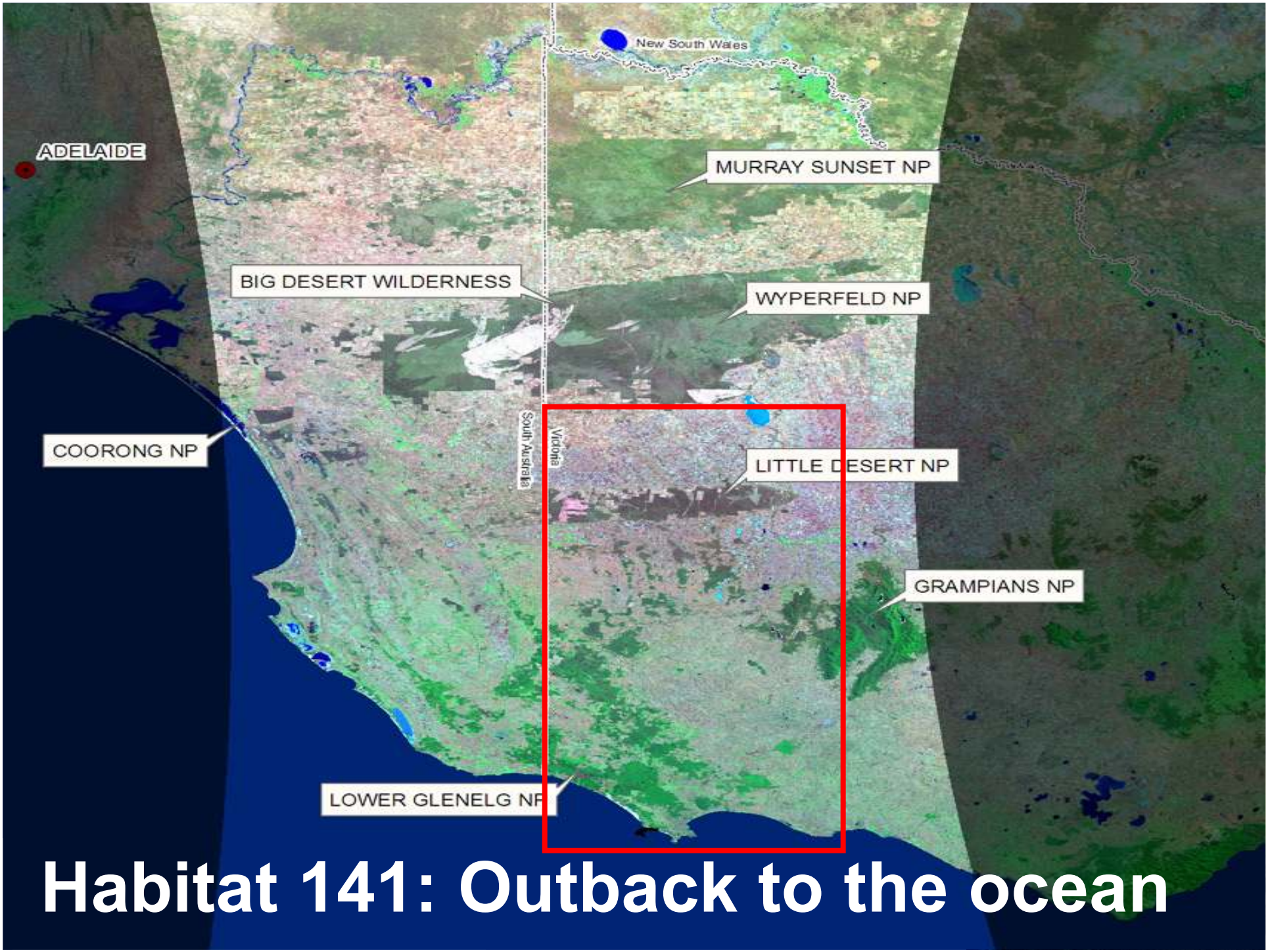

Habitat 141: Outback to the ocean

Why this area?

- Has restoration targets for 30 years
- Has costs of restoration
- Has data on carbon revenue
- Has economic activity stats

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Answers needed to:

- What investment is needed to achieve restoration targets?
- What returns on investment?
  - $ - carbon; maybe some ecosystem services
  - Unpriced benefits - resilient biodiversity, unpriced ecosystem services, amenity etc
  - What economic development?
  - Diversified farming
- What impact on regional economic development?
- Where will $ come from: private and/or public funds?

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Restoration targets :

Total of 255,000 ha on private land:

- 150,000 ha for biodiversity restoration and carbon; **on farming land**
- 62,000 ha of biodiversity restoration with no carbon counted; **on farming land**
- 42,000 ha “landcare” plantings for bio’y; no carbon counted; on land not farmed

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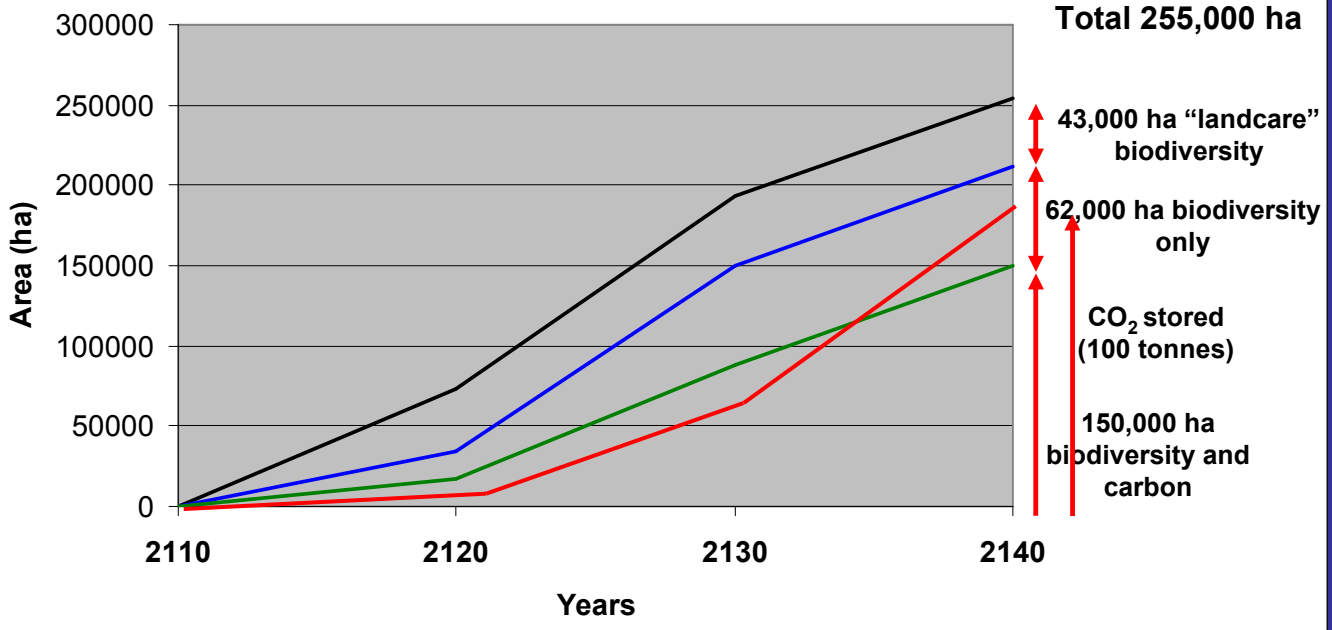
Habitat 141 Comparison: Plantings (ha) and Carbon (tonnes)



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Investment needed:

1. Restoration costs for 255,000 ha over 30 years:
   $333 million

2. Cost of securing land for biodiversity/carbon for all land except the “landcare” plantings, ie 212,000 ha, based on current agricultural value of land: **$114 million**

TOTAL: $447 million over 30 years

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Revenue:

Only from carbon storage

- on 150,000 ha;
- at a constant $25/tonne

Total over 30 years: $176 million

($2010. A real discount rate of 5% per annum was used - in line with guidelines of Vic Treasury and Finance)

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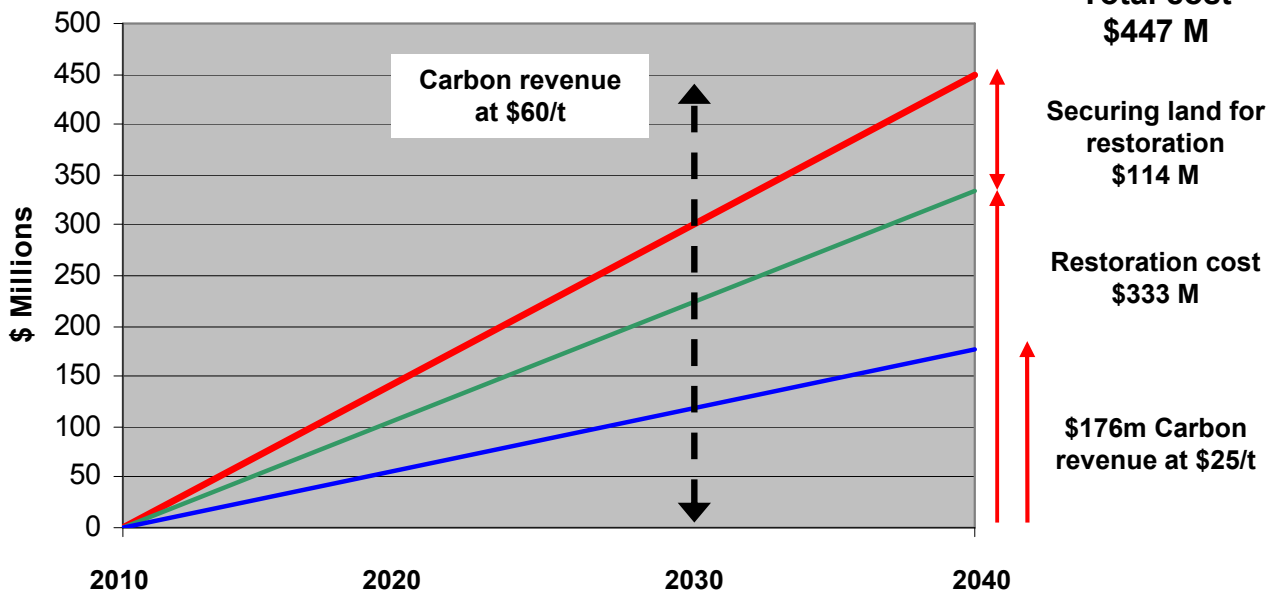
Habitat 141: Comparison of revenue vs expenses



Total cost $447 M

Securing land for restoration $114 M

Restoration cost $333 M

$176m Carbon revenue at $25/t

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Overall investment and returns:

- Costs over 30 years:
  - $447m total includes:
    - $333m – restoration costs
    - $114m – to secure protected status eg purchase.
- Revenue:
  - from carbon @ $25/t = $176m
  - from carbon @ $60/t = $450m

NOTE: still have the land as an asset

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Aust Treasury and C prices:

– $35 - $50 / tonne by 2020

– $115 - $158 / tonne by 2050

So whole program becomes profitable between 2020 and 2030

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URS consultants:

Modelled the impact of:

- achieving the targets
- impact of the changing land use on farming land

  – Direct and indirect employment

  – The regional economy

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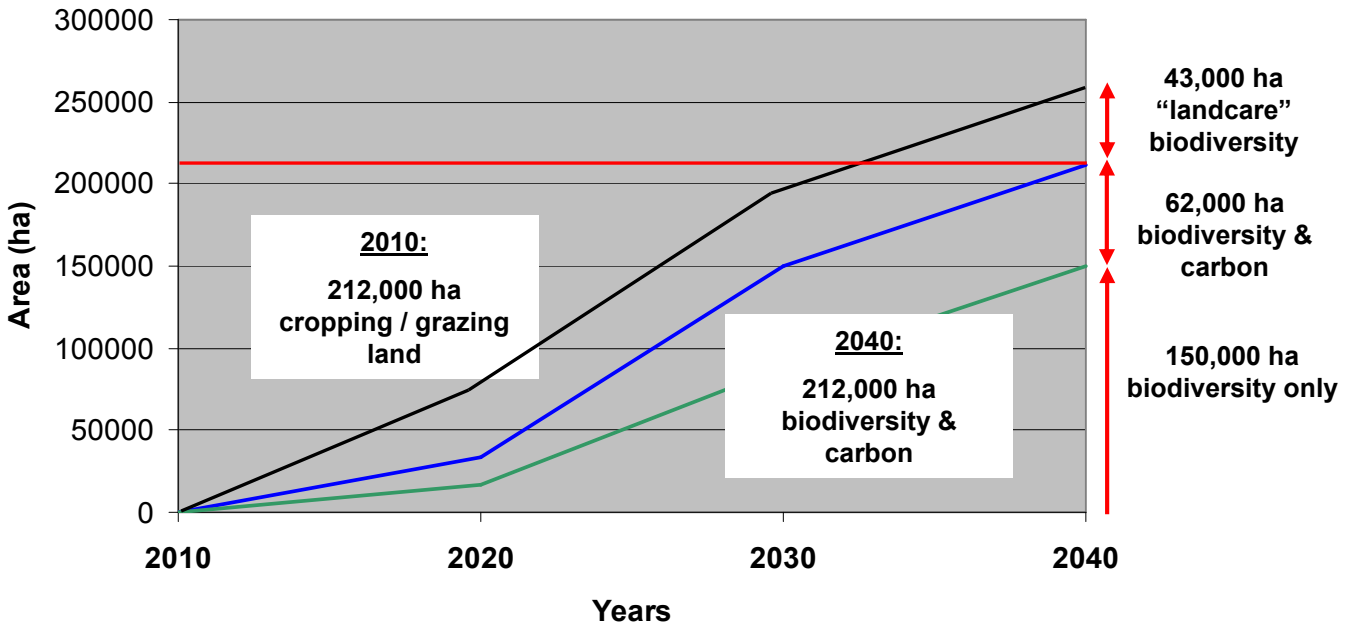
Habitat 141 Comparison: Changes in agricultural land use (ha)



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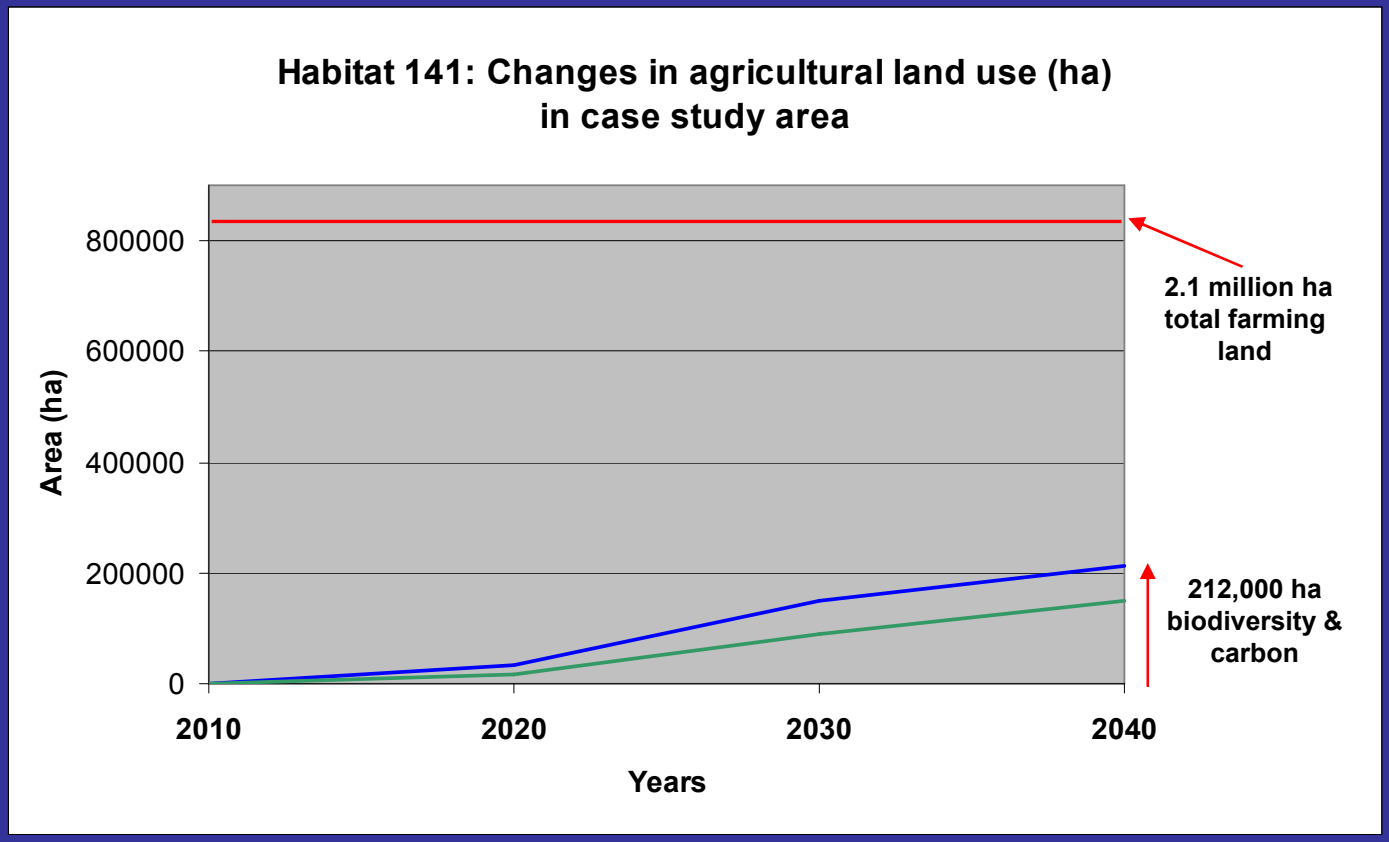

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The results

REGIONAL ECONOMIC IMPACT over 30 years:

- Reduces net regional income by less than 0.5% of the gross value of agriculture in the area

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The results - jobs

- Restoration jobs provide small positive jobs outcomes - 37 new jobs.
- NOT a loss of jobs.
- Jobs in rural areas not just regional centres.

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Unpriced benefits include:

- Ecosystem services
- Reduced salinity
- Increased agricultural productivity
- Improved amenity
- Ecological resilience - system can still support agriculture, communities etc.

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Other infrastructure investments:

- Rail tunnel under Melb: $4.5 b
- Upgrade of Monash F'way: $1.4 b
- Peninsula Link 27km: $0.759 b
- <u>This proposal</u>: $0.474 b
- Redevelopment tennis centre: $0.363 b

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Where to?

- Promote and seek feedback
- Extend to rest of Victoria
- Develop major package for Victoria
- Ensure the biodiversity component is part of the carbon farming
- Suggestions welcome

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With many thanks to:

Carrie Deutsch for project management

GAV for data - Dale Tonkinson, Paul Koch

Advisory committee

URS consultants – Ray Jeffery and Bill Unkles

John T Reid Charitable Trusts

Remember: to sign up to Vic Nat ebulletin.

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