

BLACKWOOD BIODIVERSITY PROGRAM

A strategic and rigorous approach to establishing priorities and allocating funding for biodiversity

Western Australia:

Region: South West Region

Affiliated Regional NRM Group: Blackwood Basin Group

Background

The aim of the *Blackwood Biodiversity Program* is to

- protect and enhance as many bush areas as possible within the Blackwood catchment that are of high biodiversity value;
- work in conjunction with existing Government, natural resource professionals and community networks to identify both individual sites of high biodiversity value, as well as piloting landscape level biodiversity conservation;
- educate landholders on the benefits of incorporating biodiversity into their current land management system.



The core of the program is the strategic targeting of funds available by prioritising bush areas identified as potentially being of high biodiversity value. A model was developed by the WA Department of Agriculture to rank the (approx) 24,000 patches of bush over one hectare, existing within the Blackwood catchment.

Computer based modeling was used for selecting priorities, based on multiplying the criteria of:

- remnant area (hectares);
- area to boundary ratio (edge effect);
- proportion of original vegetation remaining in the CALM estate (inverse score);
- proportion of remnant vegetation potentially exposed to salinity (inverse score);
- distance to a nature reserve or National Park (inverse score);
- number of remnants potentially forming links.

Priority sites were 'ground-truthed' using local knowledge and networks to identify any sites not containing high biodiversity values or not privately owned.

Using the methodology and learning from the initial program, the Blackwood Basin Group were asked to take on a larger landscape scale project, the *Tarin Rock Target Landscape Project*.

The *Tarin Rock* project, with the WA Department of Conservation and Land Management as the lead agency and the Blackwood Basin Group as a partner, is a 10,000 hectare landscape selected as a critically important exemplar for the expansion of this approach.

It is one of only four landscapes east of Boyup Brook that meet the criteria of :

- intactness, expressed by more than 20% of native vegetation remaining in the landscape;
- connectivity, expressed by area to boundary measurements;
- presence of vegetation types as mapped by Beard (1979); and
- level of salinity risk.

Achievements of the Blackwood Biodiversity Program to Date:

- ❖ Initial survey completed.
- ❖ Rankings completed.
- ❖ Community consultation completed.
- ❖ More than 6,000 hectares of high value bush protected, through fencing of remnants and revegetation for buffering or connecting purposes.
- ❖ Advice to landholders on vegetation protection and revegetation techniques.
- ❖ Advice to landholders on protection of fauna such as the rare and endangered Red Tailed Phascogale.
- ❖ Covenanted of more than 30% of the priority sites.
- ❖ Anecdotal monitoring of birds and recognition of the need to involve Birds Australia and build in continuing work on gathering fauna data.

Information Used:

National data sets:

- ❖ National rare and threatened species data;
- ❖ Beard (1979) vegetation mapping data.

State data sets:

- ❖ State rare and threatened species data;
- ❖ WA Department of Agriculture ranking model;
- ❖ CALM, National Trust (WA) and WA Department of Agriculture databases for covenants;
- ❖ Land for Wildlife databases for site assessments to determine biodiversity values and whether projects fit biodiversity program funding criteria.

Regional data sets:

- ❖ Bushcare Support (Wheatbelt) for direct seeding demonstrations and actual project revegetation works;
- ❖ Local knowledge of bush sites from zone managers, other locally based landcare professionals and community members.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved Grants:
 - Run for three years as the major mechanism for distributing funding;
 - Engages community members on an individual and small group basis;
 - Facilitates contact and provides advice through the assessment and implementation process.

Community measures (motivational mechanisms):

- ❖ Covenants:
 - promoting covenanting as a conscious decision for landholders who received devolved grants;
 - highlighting the benefits and allowing individuals a choice of three options for covenanting:
 - Soil and Land Conservation Commissioner,
 - National Trust (WA),
 - WA Department of Conservation and Land Management.
- ❖ Access to external information:
 - the computer modeling is based on scientific data from a range of sources;
 - expert panels are used to assess applications or and provide guidance to program processes;
 - a broader based Reference Committee is approached when wider ratification is required.
- ❖ Local facilitators and champions:
 - Blackwood Basin Group provides the local champions;
 - local facilitators from the agencies support the process;
 - community members take the lead.
- ❖ Education and extension:
 - strong program of awareness and advice;
 - reflected in 50% intention to covenant and 30% actual covenanting.

Critical Success Factors:

- ❖ Strategic in focus:
 - for selecting priorities for conservation;
 - for guiding funding decisions.
- ❖ Rigorous in nature:
 - solid scientific basis to selecting priorities:
 - leads to more appropriate priorities in the initial program,
 - enables the approach to be repeatable in other situations,

INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

- sound process used for funding decisions:
 - the Biodiversity Review Panel decides whether project applications for funds address the criteria of the program. The Panel brings a broad range of technical knowledge to the program, allowing the funding processes to be constantly reviewed and improved where appropriate,
 - questions raised at the panel meeting that need wider ratification are referred to the Biodiversity Program Reference Committee, which contains a range of community, landcare professional and agency staff as well as the members of the review panel,
 - the Reference Committee makes recommendations to the panel on topics affecting funding eg whether funds should be given for corridor connections, community-nominated sites out of the priority sites being currently targeted, and parameters for funding sites of 'high regional significance'.
- ❖ Balanced approach, combining:
 - a top-down scientific ranking, with;
 - bottom-up community nomination of important areas of vegetation.
- ❖ Flexibility:
 - adaptive process that incorporated lessons learned including:
 - ground truthing is vital,
 - editing of some datasets is essential,
 - need to distinguish between plantations and native vegetation, in all cases,
 - use of different model runs for:
 - a highly fragmented part of the region, or
 - a reasonably intact regional area.
 - flexible model that allows a combination of different approaches:
 - assessment of every remnant within a region, or
 - focusing on a selected landscape level.
- ❖ Flow- on effect:
 - initial project lead to a larger landscape scale application;
 - information from the program requested by the Bush Broker program in several instances;
 - requests for information from the program, made by local government to provide objective input to the areas of bush under threat from clearing or other processes.
- ❖ Landscape level:
 - processes and criteria are based on a landscape approach;
 - application is occurring at a landscape level.
- ❖ Regional priorities:
 - takes a regional approach by considering all remnants within an identified area;
 - can be shaped to reflect regional priorities within the process.

Further Reading:

- Shedley, E.F. & Heydenrych, B.J. (2002)
The Blackwood Biodiversity Program: A critical review. Unpublished Report, Blackwood Basin Group, Boyup Brook, Western Australia.
- Shepherd, D.P. (1996)
Identification of privately-owned remnant vegetation of high nature conservation value using Geographic Information System (GIS)-based model. Unpublished Report to the Department of Conservation and Land Management, West Australia.
- Shepherd, D.P. (1999)
Modeling the conservation values of remnant vegetation in the Blackwood Basin. Interim report to the Blackwood Basin Group. Unpublished Report, Spatial Resources Information Group, Department of Agriculture, Perth.

Contact for Further Information:

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Quote:

"This is a ground breaking program that gives us a flexible model that can be used across the region or for particularly important landscape areas."

*Barry Heydenrych
Co-ordinator, Blackwood Biodiversity Program*