



Australian Government
Land & Water Australia

ThinkingBush

Knowledge for managing native vegetation in Australian landscapes



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Native Vegetation and Biodiversity R&D

BIODIVERSITY OUTCOMES FOR
WATER POINT MANAGEMENT

SAVANNA BURNING AND THE
CARBON ECONOMY

THE DECLINE OF WOODLAND BIRDS
IN AGRICULTURAL LANDSCAPES

TRACKING GENES IN FRAGMENTED
LANDSCAPES



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Foreword



Jim Donaldson, Executive Manager,
Sustainable Landscapes,
Land & Water Australia

So this is it, the last *Thinking Bush*. As most of you will be aware, Land & Water Australia will be ceasing business over the next few months so we have been busy working out how to wrap up our various programs and projects.

As part of this, we thought it timely to take the opportunity to capture some reflections on the work we’ve been doing with researchers around the country through the Native Vegetation & Biodiversity R&D program and to thank people.

Thinking Bush started out in July 2002 as an occasional magazine designed to share insights being gained from science with people responsible for conserving and managing native vegetation in rural Australia.

Land & Water Australia first established a National Remnant Vegetation R&D Program in 1995 in partnership with the federal environment department. The findings from that first phase were well captured by Prof Jann Williams in her summary report ‘Managing the Bush’ published in 2000. Since then, there have been two more phases of the program, involving partnerships with the CSIRO, the then Murray Darling Basin Commission and Greening Australia.

Landscape-scale reconnections on Victoria's Volcanic Plains – Conservation Volunteers give the Hopkins River a new head start

Patrick O'Callaban

Victoria's Volcanic Plains stretch across almost the entire west of the state, but the extent of their grasslands and grassy woodlands has shrunk to a thin patchwork of very small reserves and privately retained remnants.

Amidst this landscape of large grazing and cropping farms, the Hopkins River winds its way south from Ararat to its estuary at Warrnambool. For years it has suffered from the all too common litany of land management abuses – extensive clearing, unfettered stock access, overgrazing of native seedlings by rabbits and loss of connection to surrounding native vegetation. The Hopkins River is currently listed as one of Victoria's worst-condition waterways.

Whilst the effects of past land use will take many years to reverse, a project to combat soil erosion on private farmland north of Hexham, a small village mid-way along the river, has been helping the Hopkins to get back on its feet and once more find its place within the landscape.

Funding from the Australian Government has enabled Conservation Volunteers Australia and project partner Conservation Enterprises Unlimited to work with farmers in the region to install over 20kms of river-bank fencing and plant 20,000 local provenance grassy woodland plants along and adjacent to the Hopkins. The farmers involved in the project have contributed a considerable amount of their own time and resources to the project, making the funding dollars go even further.

Local farmer Jim Cochran, who owns "Cobra Killuc" at Hexham, has farmed sheep and cattle for years. Like many farmers across the Volcanic Plains, he



Here today, not tomorrow – scenes of cattle pugging and damaging the Hopkins River are now a thing of the past on Jim Cochran's property. Photo by Patrick O'Callaghan/Conservation Enterprises Unlimited.

is increasingly moving into cropping. Jim's involvement in the project grew from his increasing concern that the river's report card was so poor, and knowing that a substantial part of its length was surrounded by his farm. He also recognised that, as well as reducing erosion and helping improve the health of the Hopkins, the project would also help the productivity of his farm. "The trees planted by the project will give some extra protection to lambing ewes, and after a few years will also attract more birds to the farm, which of course will then help us with things

like controlling insect pests for crops" he said. "I would like to think that by being part of this project, we'll see the river and the whole district landscape become that much healthier."

"Salt Creek", a property which adjoins Cobra Killuc, and "Bushy Creek", situated higher up in the Hopkins' catchment, will also contribute to the health of the river and soil protection with native trees, shrubs and grasses planted and direct seeded in fenced areas on the properties. At Salt Creek, near-extirpated populations of Manna

A Conservation Volunteers team puts finishing touches to stock-exclusion fencing along the Hopkins River near Hexham, Victoria.
Photo by Patrick O'Callaghan/Conservation Enterprises Unlimited.



gums (*Eucalyptus viminalis*) are forming the basis of reconnections between the Hopkins and the Cobra Killuc Wildlife Reserve, one of only 3 small reserves in this region of the Plains.

Local Landcare secretary Jane Calvert considers the project, which involves volunteers from the local community working side by side with international students, to be a wonderful example of community support for farmers and for the health of important rivers such as the Hopkins. From her nearby property "Hopkins Hill", Jane has seen the slow and often difficult process of landscape restoration take place along the river: "Since our Landcare group was formed we have encouraged all the farmers along the Hopkins to fence and tree and grass it off from grazing. In those reaches where it has been completed for a few years now, the results are very pleasing. This new project represents an important new linkage along the river and across the landscape and will only continue to assist this improvement".

The project has made use of some innovative technology to ensure that the fencing and planting will deliver the best outcomes. Using software known as the Catchment Management Framework (CMF), developed by the Department of Sustainability and Environment, the project is able to make direct links between planting and fencing a specific location and the benefits this will provide to soils,

water and biodiversity. Drawing on multiple NRM databases and relying on expert modelling of ecosystems, hydrology, soils behaviour and other relevant factors, the CMF acts as a decision support program to optimise the project's investments in fencing and revegetation, essentially giving the best landscape results possible with the funds available.

Conservation Volunteers has a strong history of working with farmers around Australia, including post-fire recovery works, tree-planting and weed control. Colin Jackson, who heads up the national non-profit group, said that volunteers on the Hopkins River project have come from as far away as Korea and Germany. These volunteers are integral part of the winning combination of community support, willing landowners and scientific guidance that is giving the Volcanic Plains along the Hopkins River a chance – reconnecting both the landscape and the people who continue to shape it.



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Land & Water Australia commenced in 1990 as the Land & Water Resources Research and Development Corporation, one of 15 Rural Research and Development Corporations established by the then Minister for Agriculture, John Kerin. As a result of its recent abolition, this will be the last edition of Thinking Bush. We plan to maintain the website, and through it access to publications of LWA and the programs it has managed. We wish to thank you for your interest in native vegetation and biodiversity.

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