

Productive Grazing *Healthy Rivers*

Improving riparian and in-stream biodiversity

Biodiversity and Grazing

The health and biodiversity of our river systems is one of six issues identified by the Victorian Government as a research priority for ecologically sustainable agriculture. Some current intensive grazing practices severely degrade riparian ecosystems. The result is a significant loss of biodiversity and ecosystem function; however, there are a number of management options that will allow both agricultural production and biodiversity outcomes to be met.

Project Aim

This project aims to improve biodiversity and environmental quality in high rainfall, intensive grazing systems through better management of riparian zones and remnant native vegetation. It is seen as a means of assisting the grazing industry to work towards achieving ecologically sustainable agriculture in riparian zones.



Industries and locations

The intensive grazing industries of dairy, beef and prime lamb are the dominant agricultural industries in the high rainfall regions of the Gippsland Plain, Strzelecki Ranges, Warrnambool Plain, and Otway Plain (>750mm per year). They are located in the Glenelg, Corangamite, West and East Gippsland Catchment Management Authority regions, and the Port Phillip Catchment and Land Protection Board region.

The Plan: How will we achieve our goal?

A review of current literature revealed the following issues of concern for riparian and in-stream management on agricultural lands:

- weed control
- grazing / stock management
- buffer strips
- waterway modification
- management of habitat trees
- control of feral animals
- conflicts with native fauna
- vegetation

The congruence between the issues identified in the literature and the actual management concerns on-farm is unknown. Also, the lack of reference these issues give to grazing productivity and biodiversity conservation in riparian zones may indicate gaps in current knowledge. Therefore, the research and development of this project will occur in two phases:



Phase 1

Establish links with other groups involved in biodiversity and riparian management on grazing properties.

- Identify groups involved in the demonstration of riparian best practice.
- Create a Natural Resource Management (NRM) reference group to assist with the process of practice change on farms.
- Work with the reference group through a series of workshops to identify research and extension priorities.

Phase 2

Determine a research, development and extension proposal.

- Target the research proposal to answer the priority issue(s) of the four bioregions as identified by the project team, NRM reference group and literature (current knowledge and gaps), including the species and ecosystems of native flora and fauna most at threat.
- Select project sites in the 4 bioregions to test on-farm management practices associated with improving riparian biodiversity in a productive grazing system.
- Source additional funding to ensure adequate delivery of the research proposal.



Links

This project has several links with other NRE and industry funded projects that will increase the capacity of this project to deliver on its outcome.

- The NRE funded project 'Best Agricultural Practice for Native Biodiversity in Grazing Industries' has sites in West Gippsland at the Dairy Research Institute (DRI) in Ellinbank and on the properties of beef producers in South Gippsland. Management of the riparian zone at DRI has been identified as a priority area.
- The Gippsland Regional Riparian Project, funded by the Dairy Research and Development Corporation and Land and Water Australia, has two demonstration riparian sites in West and South Gippsland, which may be linked to this project.
- Staff members in the *Productive Grazing, Healthy Rivers* project team encompass the Agriculture, Parks Flora and Fauna, Catchment and Agriculture Services and Regional Services Divisions of NRE. The team has links with the Co-operative Research Centre for Australian Weed Management, and the Department of Economics and the Institute of Land and Food Resources at the University of Melbourne.

If you are interested in the outcomes of this project or can contribute to its research, development or extension, please contact:

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