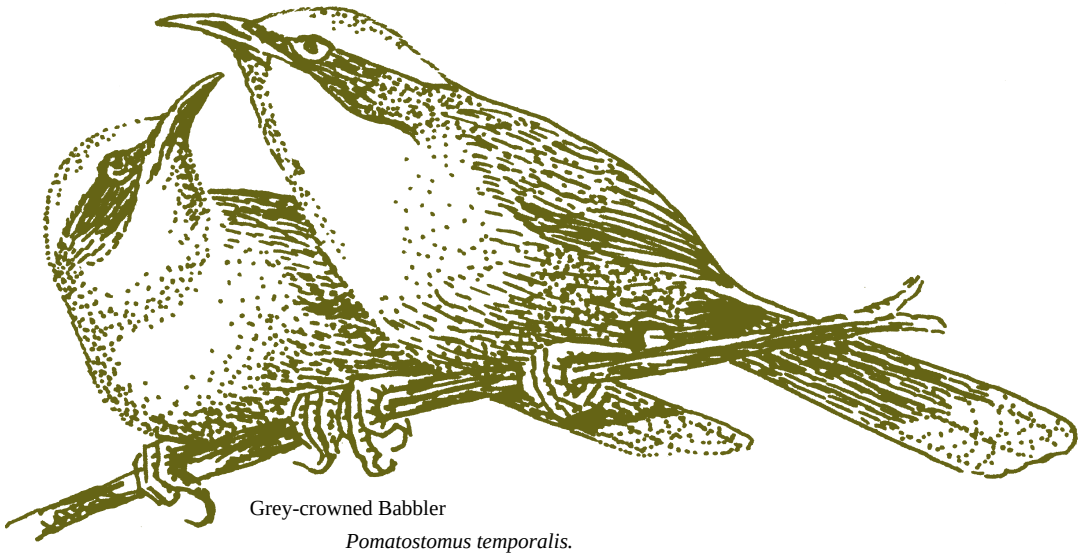
Draft Goulburn Broken Native Vegetation Management Strategy



Grey-crowned Babbler

Pomatostomus temporalis.

Strategy Finalisation Process

May 1999 – Release of Draft Strategy
May to 9 July 1999 – Community Consultation
September 1999 – Presentation of Final Strategy to Government for inclusion in *Goulburn Broken Catchment Strategy*.

Complementary Documents

There are two documents that complement this *Draft Goulburn Broken Native Vegetation Management Strategy*.

These are:

- The Draft Strategy Summary, which gives an overview of the main elements of the Strategy.
- The Background Papers, a compilation of papers produced specifically to provide information for the development of this Draft Strategy.

Feedback

Comments on this Draft Strategy are welcome and should be sent to:

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The contract was overseen by the Goulburn Broken Vegetation Plan Steering Committee (see Appendix 1) that includes representatives from local government, United Dairyfarmers of Victoria, Victorian Farmers Federation, Environmental Alliance, Goulburn Broken Catchment Management Authority (Board and Implementation Committees), Department of Natural Resources and Environment (Catchment Management and Sustainable Agriculture and Fauna, Flora and Fisheries).

Significant technical contributions were made by Mark Cotter, Paul Ryan, Caroline Douglass, Brian Garrett, Hayley Rokahr, Karen Barton, Sue Berwick, Nevil Amos, Bob Itami, Jim Crosthwaite, Melissa Walsh, Paola Parigi, Roger Standen, David Parkes, Michael Crowe, Trevor Dess, Andrew Bennett, Trudi Mullett, Rolf Weber and Doug Robinson. Anne Burgi provided editing services. Lisa McKenzie organised the printing, images and layout. Photographs have been supplied by the Environmental Management Group of the Department of Natural Resources and Environment at Tatura, Rolf Weber, Keith Ward, Glen Johnson, Ray Thomas, Meredith Mitchell, Robin Hill, Peter Robertson and Rod McLennan. Sketches by Kerry Garrett.

Rod McLennan
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Goulburn Broken Catchment

GOULBURN BROKEN CATCHMENT MANAGEMENT AUTHORITY

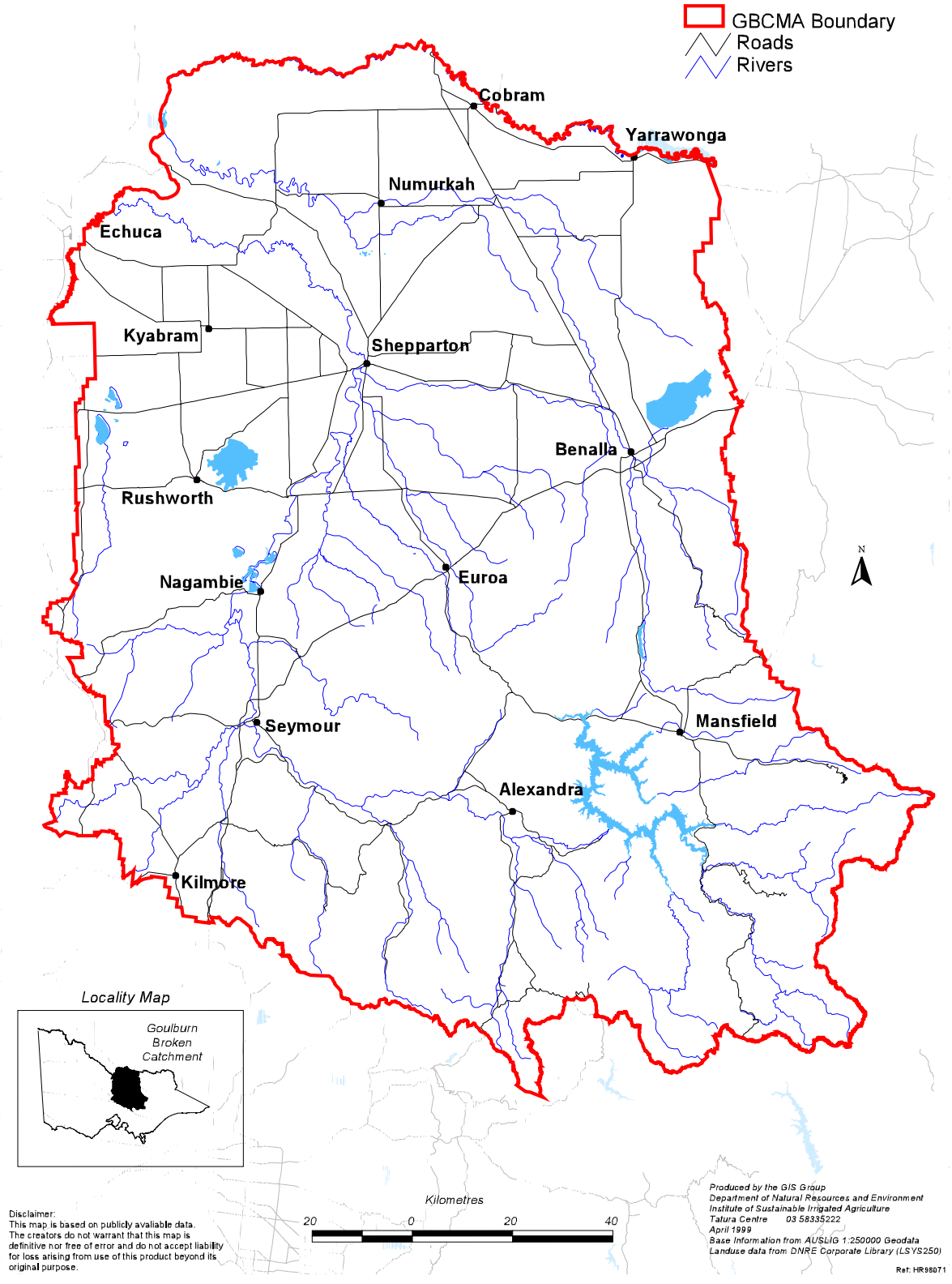
Land & Water Resources Research & Development Corporation

Bushcare

Natural Resources and Environment

Map 1

Goulburn Broken Catchment Locality Map



Foreword

Native vegetation provides habitat for thousands of species of animals, including mammals, birds, reptiles and insects. It is also important for sustainable development in the Catchment, helping in the control of salinity, water tables, water quality, erosion, greenhouse gases and insect pests. It provides a renewable timber resource. Native vegetation is an integral component of the unique Australian landscape that makes us the envy of international visitors.

However, the extent and quality of our native vegetation is in decline. Many species of plants and animals have become extinct. For some remaining native species, survival depends on the decisions we make now as a Catchment community. We require urgent and fundamental changes to the way in which native vegetation is managed and there are many opportunities for this to occur.

The *Goulburn Broken Regional Catchment Strategy,* released in June 1997, highlighted the need for a Goulburn Broken Biodiversity Strategy. Further impetus was provided with the release of *Victoria's Biodiversity Strategy* in December 1997. Biodiversity is the range of all living things, including plants, animals and micro-organisms. Conserving biodiversity means conserving the range of species, the ecosystems upon which species depend, and the genes they contain.

In August 1997, the Goulburn Broken Vegetation Plan Steering Committee was established by the Goulburn Broken Catchment Management Authority. This forum provided the first real opportunity for agency and community representatives from all parts of the Goulburn Broken Catchment to identify the contributions of native vegetation and develop solutions to the associated problems on a regional basis.

This *Draft Goulburn Broken Native Vegetation Management Strategy* addresses many nature conservation issues and, therefore, is a big step towards developing a *Biodiversity Strategy*. It also sets directions for managing native vegetation for complementary purposes such as water quality, greenhouse gas and watertable control.

We still have a significant challenge – and a lot of learning – ahead of us to bring together the knowledge that will allow us to address the many facets of biodiversity and sustainable development. In addressing sustainable development, we need to consider nature conservation, water, soil, air and – importantly – economic and social factors. This Strategy is adaptive. It recognises the need for immediate action while simultaneously ensuring that we include continually improving knowledge in developing the Strategy.

Protection of what remains is essential and all land managers have an important role to play. Our Catchment is large, the damage has been immense and the approach we adopt must be strategic. The Strategy provides the framework within which we can start to make more effective decisions on issues such as proposals to remove native vegetation and direct investment for protection and enhancement. The process of developing the Strategy has already focused attention on native vegetation management issues; many proposed actions have already been picked up and implemented.

I would like to thank Steering Committee members for their time, persistence and contributions to the development of this Draft Strategy. I also gratefully acknowledge the tremendous efforts of the many staff of the Department of Natural Resources and Environment and the Goulburn Broken Catchment Management Authority. Many other people have taken an active interest in this Strategy's development and have made technical and commonsense contributions that are very much appreciated.

We can only achieve our goals for native vegetation management if we have a shared understanding of the issues we face and the actions needed to address them. Your contribution to this Strategy's evolution and growth by providing comments is most welcome.

Dianne McPherson
Chair
Goulburn Broken Catchment Vegetation Plan Steering Committee

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Executive Summary

The *Goulburn Broken Native Vegetation Management Strategy* establishes processes to allow co-ordinated efforts by government and the whole community to **protect** and **enhance** native vegetation. It details tasks to be undertaken over the next three years to position us to achieve long-term goals. This Strategy has an emphasis on nature conservation (conservation of plants and animals) benefits.

There is already enormous commitment to improve management of native vegetation. We need to ensure there is a common direction for existing nature conservation activities. At the same time, we need to capitalise on opportunities for complementary benefits through existing major programs and initiatives that have native vegetation as a priority such as salinity, water quality, waterways and greenhouse.

The Goulburn Broken Vegetation Management Plan Steering Committee developed a Biodiversity Mission Statement:

> 'The community will work in partnership with Federal and State Governments and other agencies to protect and enhance ecological processes and genetic diversity to secure the future of native species of plants, animals and other organisms within the Catchment.'

This Strategy establishes the broad direction we must take, acknowledging that application of more detailed knowledge is critical to achieving long-term sustainability. This Strategy is adaptive: it defines our understanding at the time of writing and is structured to accommodate improved knowledge as the Strategy is implemented.

Pictures from the top: Broughton Pea *Swainsona procumbens.*

Tiger Orchid *Diurus sulphurea.*

Wedge-leaf Hop-bush *Dodonea viscosa.*

Grey Box Woodland.

Opposite page from left:

White-plumed Honeyeater *Lichenostomus penicillatus.*

River Red Gum wetland.

Part A: The forces for change

There are many forces, from local to global, driving the change in management of native vegetation.

Status of native vegetation

Approximately two-thirds of the Catchment has been cleared for agriculture, generally on the flatter and more fertile land of the mid and lower Catchment. This has resulted in the almost total destruction of some native vegetation types. Much of what remains of these types is declining in quality and is not protected in reserves.

Three Broad Vegetation Types (BVTs) are severely depleted: Plains Grassy Woodlands (2% of pre-European settlement cover in the Catchment remains), Herb-Rich Woodlands (8%), and Valley Grassy Forest (9%). Within all BVTs on a more local scale many Ecological Vegetation Classes (EVCs) are also severely depleted.

Loss of native vegetation in the Goulburn Broken Catchment has been most extensive in the Victorian Riverina, Northern Inland Slopes, Central Victorian Uplands, and Goldfields Bioregions. The Victorian Riverina Bioregion is one of the most extensively cleared in Australia; across the whole Bioregion only 5% of the original vegetation cover remains. Vegetation cover remains comparatively intact in the Highlands – northern fall, Highlands – southern fall and Victorian Alps Bioregions in the Upper Catchment.

Ninety-five plant species are classified as 'rare' or 'threatened' and 85 animal species are classified as threatened in the Goulburn Broken Catchment Management Authority (GBCMA) area.

Public land makes up 28% of the Catchment in a range of reservation types. Public land consists primarily of land less suitable for agriculture and as a consequence generally contains the more well represented vegetation types.

Socio-economic trends

Our Community's socio-economic structure and our understanding of it are rapidly changing. In large parts of the Catchment, many small farmers are not generating sufficient income to be considered viable. The average age of farmers, particularly those involved in dryland agriculture, is increasing rapidly and the rate of inter-generational transfer of farm ownership is declining. There is likely to be a decline in land use for traditional agricultural enterprises and growth in land use for other industries. These changes result in different opportunities that must be integral to development of any strategic approach to natural resource management.

Legislation and policies

Victoria is signatory to several relevant national and state agreements and strategies, including those on ecologically sustainable development, greenhouse, threatened species, forestry, and biodiversity. *Victoria's Biodiversity Strategy 1997* was produced in response to Victoria's *Flora and Fauna Guarantee Act 1988* and the *National Strategy for the Conservation of Australia's Biological Diversity 1996*. It contains goals for native vegetation. The *Goulburn Broken Catchment Strategy 1997* was produced as a result of Victoria's *Catchment and Land Protection Act 1994*. It lists declining biodiversity as one of four "absolutely central" issues.

Goal type	Goal	Emphasis
Protecting and managing: all vegetation types	Maintain extent of all native vegetation types at 1999 levels in keeping with the goal of 'no net loss' listed in *Victoria's Biodiversity Strategy 1997*.	It is important to improve the management of all types of native vegetation, which will require defining and promoting land managers' duty of care, application of *Native Vegetation Retention Controls 1989* using the context of 'no net loss', and may include increasing reservation status.
Enhancing: all vegetation types	Enhance the quality of existing native vegetation by managing 90% of native vegetation cover according to Best Management Practices by 2010.	Best Management Practice adoption will be used as a means of achieving, and measuring, quality. This includes an ongoing process of monitoring and evaluation.
Revegetating and regenerating: depleted vegetation types	Increase the cover of all depleted Broad Vegetation Types (BVTs) to at least 15% of their pre-European vegetation cover by 2030.	The focus is on enhancing connectivity and integrity of widespread but uncommon or declining communities of native vegetation in the best condition, using data from Ecological Vegetation Class mapping when available.
Increasing viability and extent and quality: threatened ecological communities	Increase the viability of threatened species and the extent and quality of threatened ecological communities.	The focus will first be on developing a strategic approach to managing threatened species and ecological communities, with emphasis on those covered under existing legislative agreements and treaties.

Part B: What will we do?

It is important to recognise that a high ecological value does not necessarily translate to a high priority for large investment. Considerations that influence investment decisions include degree and imminence of threat, likelihood of sustained recovery from impact, cost-effectiveness, complementary opportunities and benefits, and social factors such as community readiness and impact on community attitudes. Given our knowledge of such considerations, a focus on depleted Broad Vegetation Types is deemed the most appropriate, initially, to achieve greatest gains. This focus recognises the coarseness and limitations of the system of Broad Vegetation Types. The approach will be refined when better information becomes available.

The ecological principles that underpin the goal and priority-setting process in order of importance are:

- *protecting* existing remnants;
- *managing* existing remnants;
- *enhancing* connectivity and integrity through re-creation of habitat such as corridors and buffers along roadsides, waterways and significant linear remnants on private land;
- *re-creating* isolated areas of habitat; and
- *revegetating*.

More specific information, such as the presence of Victorian Rare or Threatened Species at a particular site, will influence the goal and priority-setting processes and strategic means to accommodate this information need to be developed.

There is also a need to ensure that land protection priorities such as salinity control are addressed so that the landscapes in which remnants occur are sustainable.

It is critical to establish a series of steps to achieving goals, reflecting opportunities and the need for increasing momentum towards their achievement.

Protection of existing remnants is most important. The incremental loss of native vegetation is a critical problem to resolve. A goal of *Victoria's Biodiversity Strategy 1997* is "…there is a reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation leading to a net gain with the first target being no net loss by the year 2001". Defining and promoting the principle of 'no net loss' and land managers' duty of care for native vegetation are listed tasks. Increasing reservation status can increase protection, and developing a strategic approach to this is also listed as a task.

The greatest investment needed is in increasing quantity and quality of depleted vegetation types. Depleted vegetation types are mostly on private land and in the most urgent need. Smaller public land reserves contain the best remnants of depleted vegetation types and generally have large enough remnants to form a basis from which to rebuild the landscape. Information on depleted Broad Vegetation Types (BVTs) presents the greatest opportunity to develop a strategic approach that will result in broad landscape change. Within these BVTs, specific ecological communities can be targeted during detailed planning. Ecological Vegetation Class information will be used to enhance this targeting at local levels.

It is critical that goals are easily measured and meaningful, so that we are aware of progress towards them. It is assumed that progress towards goals in this Strategy will mean significant progress towards achieving our Mission and biodiversity needs listed in *Victoria's Biodiversity Strategy 1997 and* the *Goulburn Broken Catchment Strategy 1997*.

Part C: How will we do it?

Programs implemented from strategies and plans for salinity and water quality in the Goulburn Broken Catchment provide the models for addressing challenges in native vegetation.

The Goulburn Broken Catchment Management Authority (GBCMA) is well placed to link government policy and legislation with community will. It offers a leadership role for the large number of organisations that are working towards ecologically sustainable development. The GBCMA's Implementation and Co-ordination Committees are designed to maximise involvement and therefore integration of major stakeholders. The GBCMA prepares a Business Plan for Government that includes the works conducted by the operational arm of the Authority and the Partnership Business undertaken by Government natural resource agencies such as the Department of Natural Resources and Environment (NRE) and Goulburn-Murray Water (G-MW). Local government oversees planning processes, develops and implements local environmental policies and regulations, provides incentives and support, and participates in public education about environmental issues. It plays a critical role in applying *Native Vegetation Retention Controls 1989*.

This Strategy is built on the premise that the vast majority of the community wants to protect and enhance the environment. Our challenge is to significantly improve our approach to native vegetation management so that we make better decisions.

Objectives, broad strategies and detailed tasks listed under three Action Areas will strengthen our partnerships, sharpen our focus, and enable us to achieve our goals.

Action Area 1: Processes for better decisions – participation and partnerships

Better decisions with existing and new investment can be made when all stakeholders are able to participate. Approaches to ensure better, participative decision making are detailed under the following:

- The GBCMA and allied programs

- Other agencies and non-government programs
- Communication and local ownership
- Local Area Plans
- Best Management Practice (BMP) approach
- 'No net loss', 'net gain' and 'proponent onus'

Regional development will continue and circumstances will arise where some clearing of remnants is inevitable. We need to ensure community ownership of the approach and outcomes so that key values are protected, the integrity of the native vegetation resource in its entirety is not compromised, and the clearing does not undermine this Strategy's goals.

Action Area 2: Tools for better decisions – targeting investment

Targeted investment is favoring input of funds in specific locations on particular types of works that have the greatest impact toward goals. Only by having a sense of priority can we expect to manage the conflicting processes of development and protection of native vegetation. While the principles listed in Part B help determine the goals and priorities, they do not in themselves allow us to say where works should occur or where resources should best be allocated. And, while it is true that every remnant, no matter how small or isolated, has value, it is also true that not all remnants are of equal value.

Decisions need to be made to ascertain locations most likely to provide maximum nature conservation benefits for the resources invested. A Catchment-scale *Nature Conservation Priority Action Zones – Protecting and Connecting Depleted Broad Vegetation Types* map has been developed as the first of several guides to enhance decision making. On private land, public investment (usually in the form of incentives and extension support) will generally be greatest in highest priority zones.

Details of the approaches to be taken are provided using the following context:

- Priorities for the three levels of decision making: regional (Catchment) planning – the strategic level; program management and community planning – the tactical level; and site planning – the operational level.
- Who pays how much for what?

Action Area 3: Ongoing improvement

The specific tasks provide the detail on how we will refine the broad direction set by this Strategy and are listed with responsibilities and timelines. Tasks will be completed given a reasonable level of resourcing: some tasks will require new investment, but many will only need modification of existing programs. The approach to be taken is detailed in sections on *Reporting* and *Monitoring and Evaluation*.

Classifying Biodiversity and Native Vegetation

Bioregions

To improve natural resource management in Australia, a national framework of 'Bioregions' (Interim Biogeographical Regionalisation of Australia [IBRA] Bioregions) has been prepared through the co-operative efforts of the Australian and New Zealand Environment Conservation Council (ANZECC).

Bioregions recognise the ecological and biophysical characteristics of the landscapes and provide a natural framework for management. Victoria has developed additional bioregions that allow better discrimination at the State level but still fit into the IBRA Bioregions. These Victorian Bioregions have been used to describe assets, issues and priorities in *Victoria's Biodiversity Strategy 1997* and will be used as the basis for reporting and monitoring progress.

The Goulburn Broken Catchment contains parts of seven of the 22 Victorian Bioregions, as shown on Map 2.

Broad Vegetation Types (BVTs)

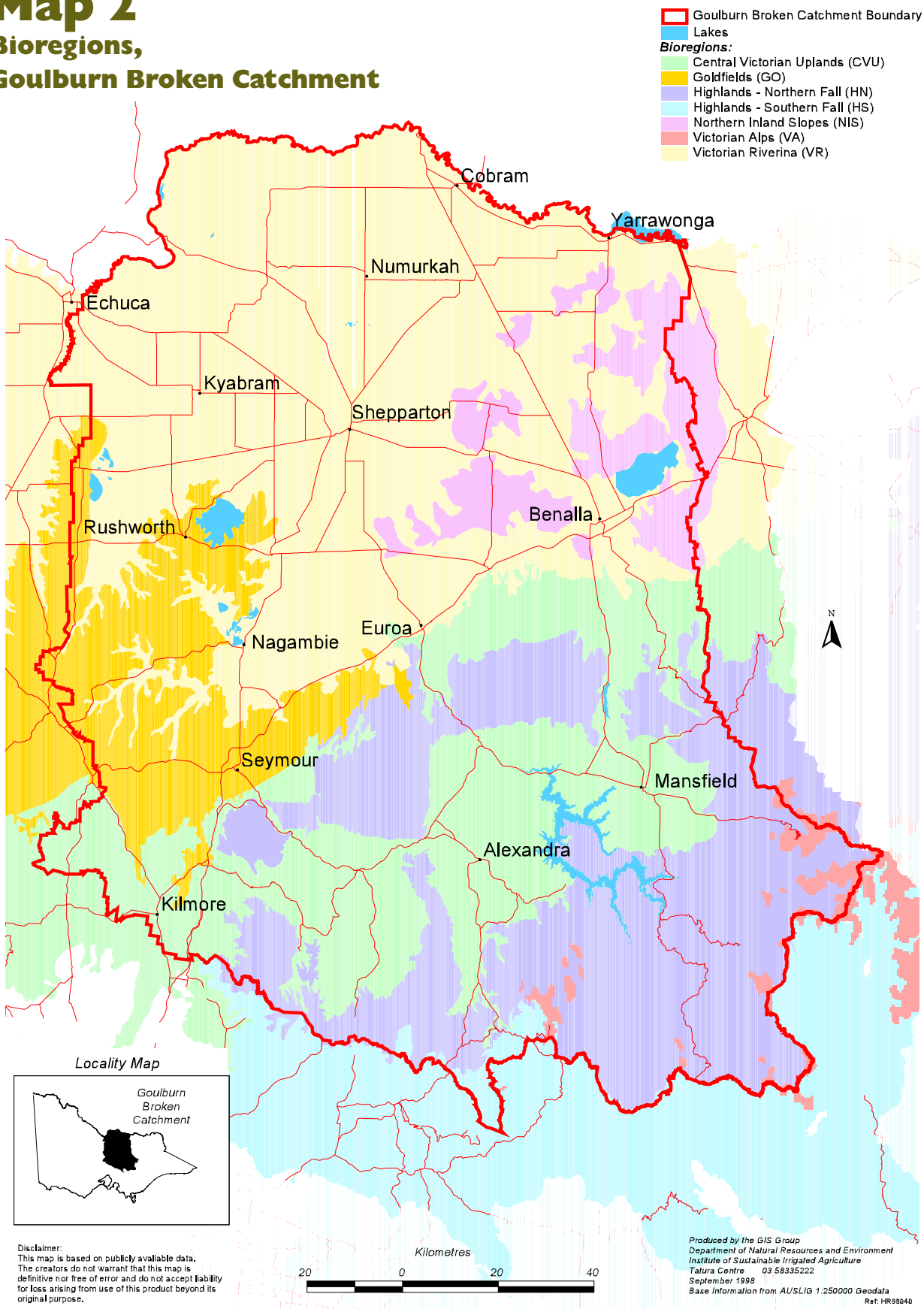
To simplify planning for and to communicate the mosaic of vegetation types, the system of BVTs was developed on the basis of land system type and other factors such as typical vegetation, geology, rainfall, elevation and soil type. BVTs are not Bioregion specific. There are 13 BVTs (plus a separate category covering Wetlands) described for the Goulburn Broken Catchment. Detailed information on each of the BVTs is given in the Appendices. Maps 3, 4 and 5 and Figure 1 show the levels of depletion and extent of reservation of BVTs.

Ecological Vegetation Classes (EVCs)

EVCs are based on vegetation structure and floristics (the species that occur at the site), land systems, other environmental information, such as aspect, slope, elevation, rainfall, fire frequency, and ecological responses to disturbance. EVCs describe local patterns of vegetation diversity and again reflect environmental influences. They are more complex, variable and specific than BVTs. EVCs provide the next level of detail in classifying vegetation. These are not BVT specific. Mapping of the EVCs for the entire Goulburn Broken Catchment will be most appropriate for refining strategic priorities and guiding detailed levels of planning.

Map 2

Bioregions, Goulburn Broken Catchment



1 Introduction

The *Goulburn Broken Native Vegetation Management Strategy* lists strategies and tasks to establish co-ordinated efforts by government and the whole community to **protect** and **enhance** native vegetation.

If we are to honor our responsibility to future generations, we must take action now with a long-term view. The tasks to be undertaken over the next three years will position us to achieve long-term goals for native vegetation.

Native vegetation underpins the biodiversity systems that sustain our agricultural land in the long term. It helps control salinity and erosion; provides habitat for plants and animals (nature conservation); has an important role in control of other land management issues such as water quality and waterways; helps control the build-up of greenhouse gases; and provides a more pleasant environment in which to live.

Native vegetation also makes a direct, significant contribution to our region's economic prosperity by providing valuable timber resources and other products, shelter for stock and crops, a setting for recreation and tourism, increasing property values, and improving our quality of life.

We must find better ways to protect and enhance what we have already and to significantly increase the quantity and quality of severely depleted vegetation types. There is already enormous commitment to improve native vegetation. We need to ensure there is a common direction for existing nature conservation activities and capitalise on opportunities for complementary benefits through existing major programs and initiatives that have native vegetation as a priority such as salinity, water quality, waterways and greenhouse.

Box Ironbark woodland with shrubby understorey.

This Strategy has an emphasis in the short term on issues that reflect the most urgent need and the greatest opportunity for positive change. These are:

- The role of native vegetation in nature conservation (conservation of plants and animals).
- Depleted vegetation types. Broad Vegetation Types (BVTs) information is used for establishing general priorities. Within these BVTs, specific ecological communities can be targeted during detailed planning. Ecological Vegetation Class information will be used to enhance targeting at local levels.
- Private land, which contains most of the depleted vegetation types. The Strategy also includes strategies for integrating management of small blocks of public land with private land. Native vegetation on public land is an important part of the whole catchment scenario. Most issues concerning larger blocks of public land (such as forests, parks and reserves) are being addressed by various agencies through current planning and management processes complementary to this Strategy. However, awareness of native vegetation values and management on public land is critical for establishing the context and priorities of actions and is considered in this Strategy.

This Strategy establishes the broad direction we must take, acknowledging that application of more detailed knowledge is critical to achieving long-term sustainability. This Strategy is therefore adaptive: it defines our understanding *at the time of writing* and is structured to accommodate improved knowledge as it is implemented. Clear reporting of progress gives a collective sense of achievement and also helps us identify where modifications are needed.

There are three parts to this Strategy:

Part A: Native vegetation – the forces for change

There are many forces, from local to global, that are driving the change in native vegetation management. Part A identifies the issues surrounding the role of native vegetation in nature conservation as a part of biodiversity management, the prevailing socio-economic and environmental circumstances in our Catchment, and the legislative and policy responses.

Part B: What will we do?

Given substantial but incomplete scientific knowledge and competing social, economic, environmental and cultural needs, setting goals for native vegetation is very

challenging. Principles for setting goals and establishing priorities are discussed. Judgments have to be made, and the resulting goals define what we will be striving to achieve as a Catchment and broader community.

Part C: How will we do it?

The approach taken to develop the Strategy builds on extensive Goulburn Broken experience in natural resource management and defines the opportunities brought about by the advent of the Goulburn Broken Catchment Management Authority (GBCMA). The Strategy contains the elements recognised in a 'quality systems' approach: it details the *approach* to be taken, how the Strategy is to be *deployed,* the framework for measuring *results*, and the process for ensuring *improvement*.

Using the goals as our focus, objectives are established and broad strategies and specific tasks defined, with responsibilities and timeframes. These are listed within the context of three broad **Action Areas** that provide the focus for implementation of this Strategy.

Action Area 1: Processes for better decisions – Participation and Partnerships

Action Area 2: Tools for better decisions – Targeting Investment

Action Area 3: Ongoing improvement

Strategy development context

The Land and Water Resources Research and Development Corporation identified the Goulburn Broken Catchment as suitable to develop a Native Vegetation Plan as a pilot project for Victoria. Pilots in catchments in other States have varied enormously in scope and management culture background and have resulted in very different approaches. Environment Australia is publishing summaries of these projects. The release of *Victoria's Biodiversity Strategy* in December 1997 provided further impetus to this Strategy's development.

The original intent of producing a plan has been varied to first establish a strategic framework from which better decisions – which will be shared by all stakeholders – can be developed. This will result in the greatest long-term improvements to our native vegetation. There has been an emphasis on ensuring a close link between the Strategy and its implementation so that the proposed strategies are relevant.

A *Draft Regional Vegetation Plan* was produced in August 1997 by each of the nine Catchment and Land Protection Boards (now Catchment Management Authorities) under a State Government initiative. The Draft Plans focused on providing a regional interpretation of the *Native Vegetation Retention Controls 1989*. Key stakeholders were represented on steering committees to ensure the range of community concerns was considered. In developing these plans it was determined that an understanding of the broader context of native vegetation management is required. This Strategy provides this broader context and will enable us to develop approaches to issues such as native vegetation removal.

The *Goulburn Broken Native Vegetation Management Strategy* addresses many of the most pressing nature conservation issues and therefore is a big step towards development of a *Goulburn Broken Biodiversity Strategy*. It lists tasks that enable us to integrate management of native vegetation for complementary purposes such as water quality, salinity, waterways and greenhouse gases.

In the course of this Strategy's preparation a number of Background Papers were prepared. These papers provide greater detail on native vegetation, nature conservation and management options than can be presented here. Many – such as the cost-sharing and best management practice papers – have been widely circulated.

This page from left: Bulbine Lily *Bulbine bulbosa.*
Tree Goanna *Varanus varius.*
Creamy Candles *Stackhousia monogyna.*