

Part C: How will we do it?

6 How do we link science and policy with implementation?

There is already enormous commitment from the Catchment community to improve management of native vegetation. The challenge is to focus the energy and resources arising from this commitment. We would go a long way towards achieving our goals if we all worked in the same direction. This will only happen if we collectively understand each other's particular needs.

This Strategy provides a rational basis for identifying which segments of the community have the capacity to influence change and under what circumstance this will occur. This will guide the development of the information and policies required to bring about the desired change in approach. It also allows us to build up a more orderly and sophisticated understanding of change processes and how they can be promoted.

Structure of the GBCMA

The GBCMA's Board is directly responsible for developing strategic direction for land and water management in the region.

The three Implementation Committees (Shepparton Irrigation, Mid Goulburn Broken and Upper Goulburn – see Map 8 and Figure 3) develop detailed work programs and oversee on-ground program delivery for specific issues or for sub-catchments. Community involvement is intrinsic to their structure: they promote a high degree of bottom-up development planning, enhancing ownership and community networks.

Co-ordination Committees have been established to develop policies and strategies at a Catchment level and to be responsible for monitoring performance. They will have a 'sunset clause': once the initiative has been incorporated into the Implementation Committees' Business Plans the Co-ordination Committees will cease to exist.

The GBCMA's partners

The GBCMA prepares a Business Plan for Government in line with the *Catchment Strategy* which includes works by its operational arm (Waterways and Floodplain) and the Partnership Business (made up of works and projects undertaken by Government natural resource agencies such as the Department of Natural Resources and Environment (NRE) and Goulburn-Murray Water (G-MW)).

A formal service agreement with NRE describes the relationship and responsibilities of NRE's Catchment and Agricultural Services division and the GBCMA.

G-MW's role is specified in Government Service Contracts generated from the GBCMA's Business Plan. The GBCMA, through the Implementation Committees, is responsible for monitoring progress and authorising the release of funds.

Local government (Map 9) has a very important role to play in implementing the *Catchment Strategy*. 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.

The GBCMA also has relationships with Parks Victoria, Goulburn Valley Water (the urban water authority) and the Forests and Fire, and Flora and Fauna Divisions of NRE. These organisations work with the GBCMA to implement the *Catchment Strategy*.

Formally, the GBCMA relates to federal funding bodies through the State Government. However, the GBCMA liaises closely with Murray Darling Basin Commission, Commonwealth agencies of Agriculture, Fisheries and Forestry – Australia, Environment Australia, and Land and Water Resources Research and Development Corporation to promote efficient resource allocation and investment.

This Strategy lists tasks under three Action Areas that will translate good intent into on-ground outcomes by strengthening our partnerships and sharpening our focus in managing native vegetation:

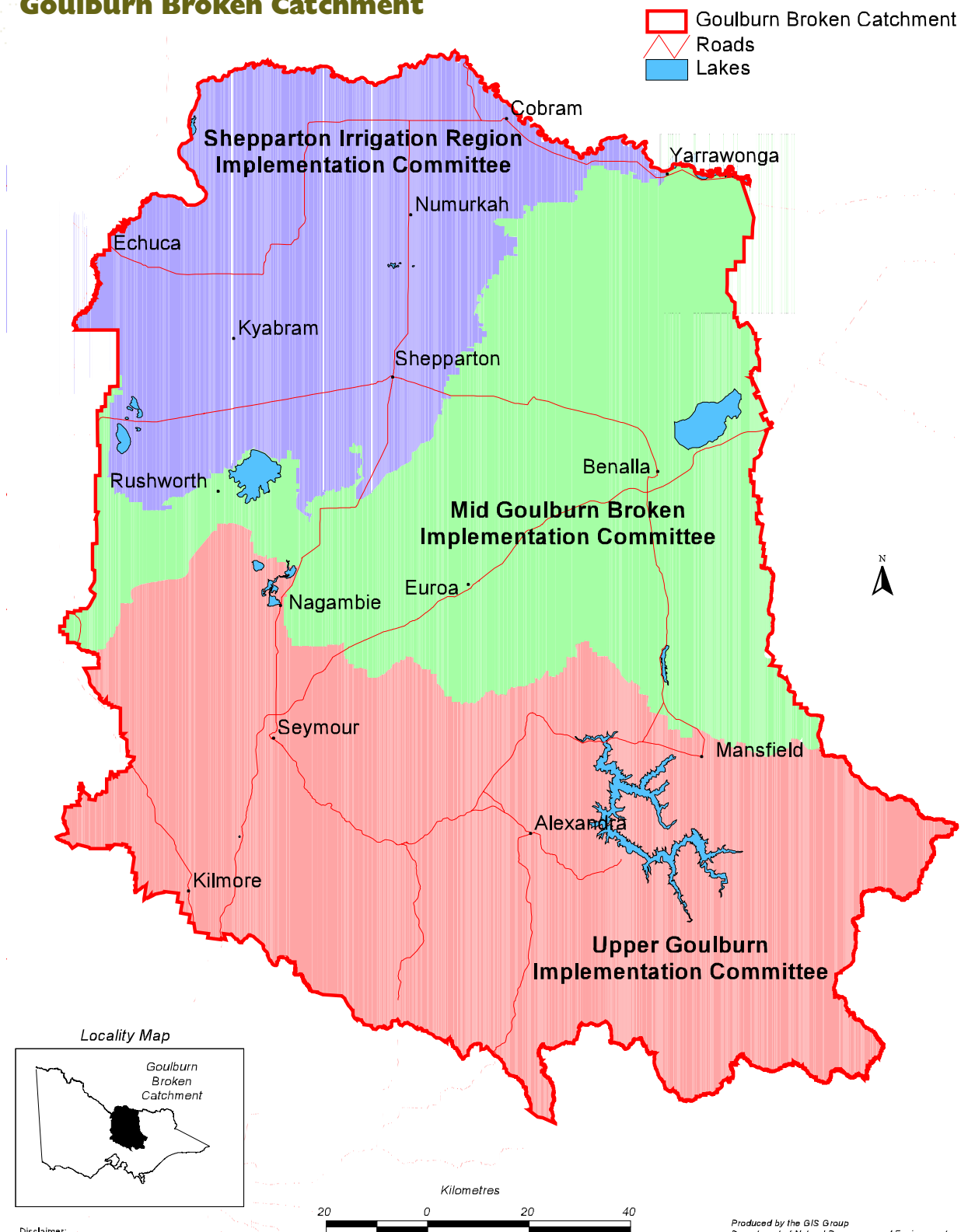
Action Area 1: **Processes** for making better decisions – participation and partnerships

Action Area 2: **Tools** for better decisions: targeting investment

Action Area 3: **Ongoing** improvement

Map 8

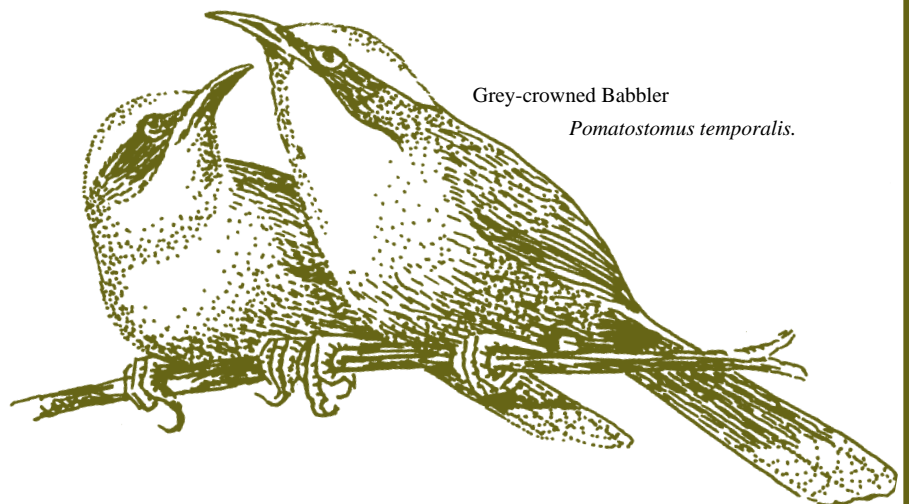
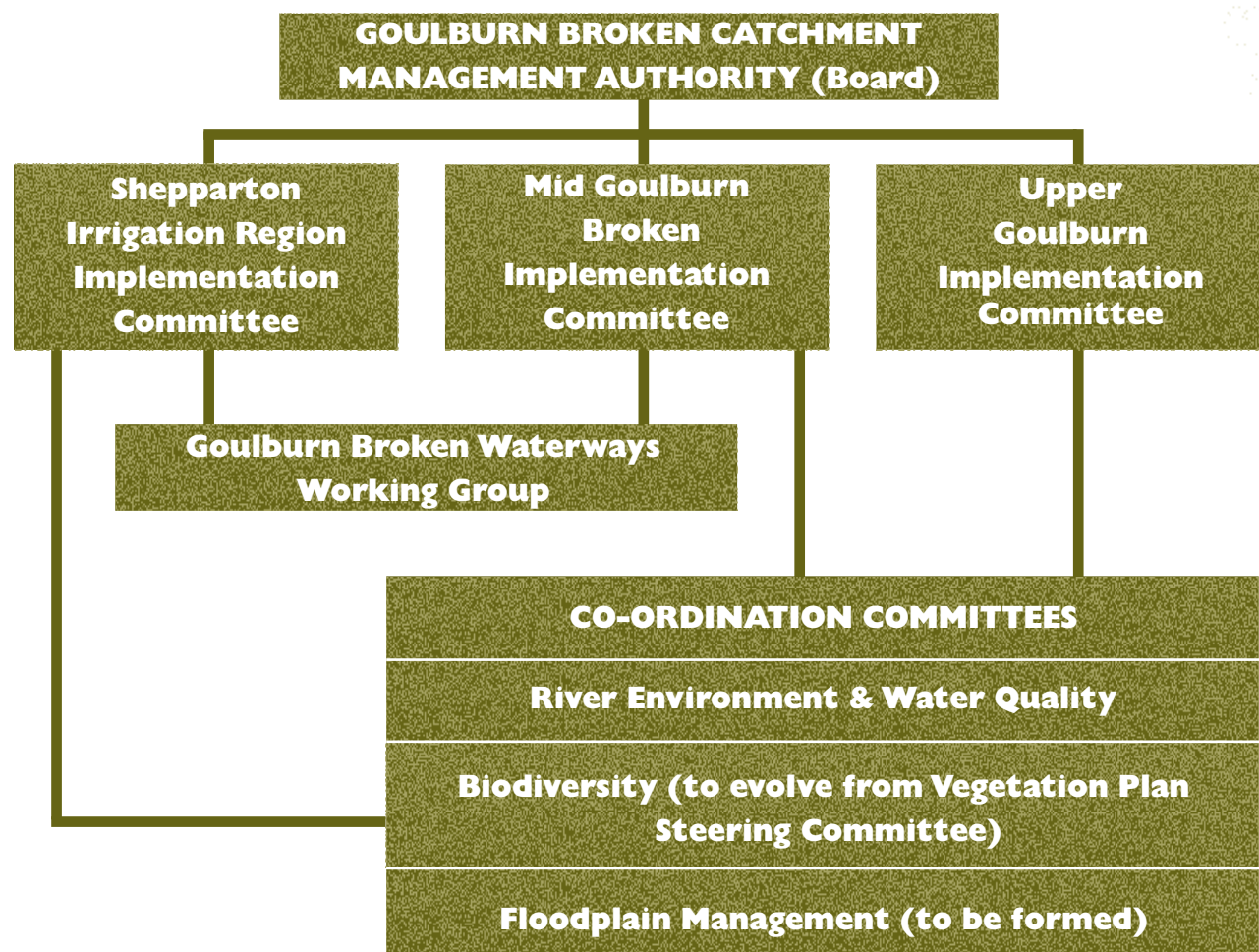
Implementation Committees, Goulburn Broken Catchment



Disclaimer:
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Produced by the GIS Group
Department of Natural Resources and Environment
Institute of Sustainable Irrigated Agriculture
Tatura Centre 03 5835222
September 1998
Base Information from AUSLIG 1:250000 Geodata
Ref: HR98041

Figure 3: Structure of the Goulburn Broken Catchment Management Authority



Grey-crowned Babbler
Pomatostomus temporalis.

Map 9

Municipalities, Goulburn Broken Catchment



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7 Action Area 1: Processes for better decisions – participation & partnerships

There are a large number of stakeholders involved in implementing the Strategy. To commit to improving the approach to managing native vegetation, each stakeholder must be confident that processes exist to resolve the range of competing needs. This can only occur with strong partnerships between various groups and individuals.

It is important to emphasise actions that are non-threatening and invite participation so that resistance is minimised and denial or confrontation avoided. This includes avoiding being overly directive and excessive use of compliance-type activities. This Strategy has a short-term emphasis on empowering farmers and those stakeholders associated with farmers.

The GBCMA and allied programs

Effective involvement of key stakeholders in decision-making processes is critical to developing commitment to our goals and the Strategy's success. The GBCMA is the primary organisation for setting strategic directions on natural resource management on private land and is responsible for ensuring participation by the community's key stakeholders. Local government and NRE make decisions on a local level in the context of these directions and the relevant Acts.

Objective

1 Ensure a high level of community participation in all levels of decision making on native vegetation management in programs in which the GBCMA has an influence.

Peak Catchment decision-making forums need to ensure that well-respected community leaders represent key stakeholders. These leaders will become – and remain – involved only if they can have a real influence on the processes and results.

This Strategy is an example of this involvement. It has been produced by a Steering Committee which has representatives from the GBCMA, GBCMA Implementation Committees, Environmental Alliance, Victorian Farmers Federation, United Dairyfarmers of Victoria, local government, and NRE. Technical support, information and advice have been provided to the representatives. This support is an integral role of agency staff.

The GBCMA develops policy and provides direction on the balance of responsibilities among stakeholders and,

with its three Implementation Committees, establishes forums to investigate issues and provide policy advice.

NRE provides most of the Catchment's native vegetation extension services and manages vast areas of vegetated public land, including State Forests. Therefore NRE's involvement at GBCMA Board and Implementation Committee level is critical to successfully resolve policy and implementation issues.

Strategy

1.1 Actively encourage key stakeholder groups to be represented on key decision-making forums.

Tasks

1.1.1 Achieve appropriate representation through existing Catchment processes, such as:

- Co-ordination Committees
- Implementation Committees
- Implementation Committee working groups
- Regional Assessment Panel.

1.1.2 Publicise the representation process through stakeholder groups.

We are in the pioneering stage of deciding how to deal with complex biodiversity issues. Other complementary native vegetation issues such as air and water quality, waterways and salinity management also must be worked through. Thus, over the next three to five years, a heavy investment in better integrating biodiversity with broader community needs, such as agricultural productivity, is required. There are enormous opportunities to align this Strategy with works programs along waterways and riparian areas. This needs to occur as a matter of urgency.

Strategy

1.2 Promote a Catchment-scale approach to policy development concerning biodiversity, with an emphasis on a close linkage between policy development and implementation.

Task

1.2.1 Establish the Biodiversity Committee, which will co-ordinate policy development for the Catchment. This Committee has a sunset clause of 2002, at which time the GBCMA, its Implementation Committees and Local Government will be expected to co-ordinate further policy development.

Superb Parrot *Polytelis swainsonii*.



The GBCMA is responsible for overseeing the integration of policy development. Its Implementation Committees are responsible for ensuring that planning and works programs totalling more than \$25 million (1998-99) are appropriately integrated with those of complementary stakeholders.

The salinity, waterways and water quality programs, in particular, have a significant environmental component.

Influencing the content and priority-setting processes of these programs is a key step in the implementation process.

Objective

2 Ensure opportunities for complementary outcomes in major GBCMA and allied natural resource management activities are grasped.

There are other opportunities for achieving nature conservation benefits such as through greenhouse projects and private land farm forestry (where nature conservation benefits can be demonstrated). As an example of the need for co-ordinated planning, the protection of Plains Grassy Woodland must be integrated across private and public land, waterways, regional development and primary industry programs.

Tremendous advances in geospatial technology enable us to refine our integrated decision making to a very sophisticated level: it is now easy to represent related issues on a map at any scale to determine their degrees of complementarity or conflict. Readily understood visual information on a range of issues that involves many stakeholders enables those stakeholders to make better decisions.

Strategy

2.1 Promote this Strategy's mission and goals through the GBCMA's three Implementation Committees.

Tasks

2.1.1 Include this Strategy's objectives, strategies and tasks in all programs of the three Implementation Committees' Business Plans. These programs include:

- Waterways
- Floodplain
- Water quality
- Salinity
- Pest plants and animals.

2.1.2 Establish Catchment-scale native vegetation maps complementary to the 'Nature Conservation Priority Action Zone – Protecting and Connecting Depleted Broad Vegetation Types' map of this Strategy (Action Area 2) and develop approaches for:

- Other nature conservation issues, such as aquatic ecosystems, reservation and rare or threatened species
- Waterways
- Floodplain
- Water quality
- Salinity
- Pest plants and animals
- Greenhouse.

Other agencies and non-government programs

There are several key organisations responsible for, or interested in, managing relatively large areas of native vegetation.

Objective

3 Ensure key agency and producer industry organisations adopt the Strategy by including its principles and priorities in their own strategies and programs.

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. Applying *Native Vegetation Retention Controls 1989* is an especially important function. Some municipalities have included native vegetation in rebates for good land management.

Local government is also a significant land manager in its own right and has a major role in the management of roadsides. Roadsides can provide high-quality linear habitat, especially where they abut or link large or significant vegetation remnants.

Local government municipal strategic statements provide an important overview of a municipality's environmental policy. The content of these statements will have a significant impact on successful implementation of this Strategy.

Goulburn-Murray Water (G-MW) manages significant quantities of native vegetation and is responsible for implementing the management processes of the groundwater and surface water resources in the Catchment. This involves substantial capital works and maintenance of the water delivery system and Catchment water bodies.

Parks Victoria oversees the management and protection of national parks and conservation reserves across the Catchment.

Utilities serving the Catchment include VicRoads, Public Transport Corporation, gas companies, electricity supply companies, telecommunications suppliers, North-East and Goulburn Valley Water and the Country Fire Authority. VicRoads has developed a sophisticated but nevertheless simple approach to operational planning to ensure that works are performed with sensitivity, which includes consideration of the needs of native vegetation.

These organisations are responsible for delivering a variety of services to the community. The utilities undertake considerable works and capital development in support of these services. The development and adherence to Codes of Practice provide the means to develop a partnership approach to the management of native vegetation.

The **Country Fire Authority** has potentially conflicting priorities to those of the Strategy. Where there are conflicts, steps should be taken to negotiate an appropriate outcome for the protection of resources.

The **Environment Protection Authority (EPA)** can incorporate principles and priorities of the Strategy into permit conditions. This could include highlighting to proponents the need to protect any remnant vegetation, as well as the potential for creating and enhancing corridors using native vegetation.

Alpine resorts management boards are responsible for sites which are very sensitive in terms of their environment, particularly the native vegetation.

Appropriate material needs to be developed in partnership with **education providers** to ensure it meets their needs as well as those of the Strategy. Tertiary programs for undergraduate and postgraduate studies present significant opportunities, particularly in providing an excellence in the science underpinning our adaptive approach to management.

Non-government organisations, particularly those directly interested in improving natural resource management, play a significant role in management of native vegetation, from direct purchase and covenanting of priority remnants through to helping farmers plant trees and build fences. Many of these organisations are supported by **philanthropic trusts**.

There are many other stakeholders or groups representing the community whose work or interests impinge on the condition or management of native vegetation. These include: tour operators; special interest clubs or focus groups such as Friends of the Park(s); and bushwalking, fishing and other sporting clubs. It is important that these groups be made aware of the Strategy and the role they can play in its promotion and implementation.

Strategy

3.1 Promote adoption of this Strategy by community organisations.

Tasks

3.1.1 Include Strategy principles and priorities in Local Government programs and amend municipal strategic statements accordingly.

3.1.2 Expand Dryland and Irrigation Municipal Catchment Co-ordinator positions to include biodiversity, and have staff occupying these positions represent Local Government on the Biodiversity Committee.

3.1.3 Include Strategy principles and priorities in programs of key agencies, including:

- Goulburn-Murray Water
- Parks Victoria
- Forests Service, Department of Natural Resources and Environment
- Utilities
- Environment Protection Authority
- Alpine resort organisations
- Educational institutions
- Department of Defence.

3.1.4 Include Strategy principles and priorities in non-government organisation programs including:

- Landcare networks
- Trust for Nature
- Greening Australia Victoria
- Australian Trust for Conservation Volunteers (ATCV)
- Philanthropic trusts.

3.1.5 Develop opportunities in conjunction with tertiary institutes, particularly those within the Catchment, to add to the adaptive science that underpins this Strategy.

3.1.6 Investigate possibility of adapting VicRoads' model for operational planning to Local Government.

Communication and local ownership

Local community ownership of local problems and solutions is critical to the Strategy's success. The need for urgent action on private land highlights the need to actively involve farmers as they also rely on the natural resource base for a living.

Objective

4 Ensure local ownership of local problems and solutions.

The Local Government and Landcare Action Plan for Nature Conservation in the Goulburn Broken Catchment 1997 provides detailed information on potential community group-oriented projects. This provides an excellent reference when matched against the priorities established in this Strategy. Together, the two documents identify opportunities for communication to maximise nature conservation benefits.

Industry associations (such as the Victorian Farmers Federation, Irrigation Cropping Forum, United Dairyfarmers of Victoria, Murray Dairy) and agribusiness (chemical and fertiliser resellers and agents and stock and station agents) are often the first point of contact on many land management issues; and have significant influence on program directions and funding. Some private companies sponsor activities involving native vegetation management.

Existing programs such as Farm\$mart, salinity and primary industry-based programs provide an opportunity to integrate native vegetation needs into farm planning. Community groups such as Landcare play a key role in disseminating information to landholders.

Those implementing the Strategy will come from a diverse range of backgrounds, and their preferred methods of receiving information will be just as diverse. A common point of reference should be the recognition of adult learning principles. There needs to be a range of options that allow people to learn in a non-threatening environment by being shown relevant ideas/issues; reflect on the theory, practice and review of what happened; and translate what they have learnt into their own situations.

Community attitudes change with improved knowledge and some practices that were once encouraged by Government, such as clearing native vegetation, are now perceived to pose a risk to the environment. Government has responded through development of legislation and regulations such as Victoria's *Native Vegetation Retention Controls 1989*. This legislation must be interpreted locally so that we can fully apply it.

Staff of government agencies, statutory authorities, corporations working in the Catchment, and land managers all have a duty to act responsibly in managing native vegetation. Applying the 'duty of care' doctrine is fundamental to confirming the behaviour expected of land stewards and capturing the change in community expectations. We can define our 'duty of care' for all land managers in the Catchment, and refine this for areas within the Catchment.

Strategy

4.1 Promote a strategic approach to communication with all land managers through processes that encourage local ownership of local problems.

Tasks

4.1.1 Develop and implement a Communication Strategy that:

- includes all land managers but has an emphasis on farmers;
- establishes benchmarks for awareness and understanding;
- uses principles of adult learning;
- focuses on appropriate levels of decision making (Strategic, Tactical or Operational);
- focuses on areas within control of private land managers;
- makes information readily available, including via the Internet; and
- uses information about possible community group projects gathered by Raven (1997).

4.1.2 Build on current publicly funded extension programs that focus on community groups, such as Landcare groups (and networks of community groups), to effect change.

4.1.3 Develop a campaign-style approach to implement the Strategy (such as the Superb Parrot Project).

4.1.4 Develop a partnership approach between natural resource managers and industry bodies.

4.1.5 Disseminate information gathered by Local Government and NRE (Flora and Fauna) on roadside vegetation values.

4.1.6 Develop partnership management agreement processes, including cost-sharing arrangements, for managing appropriate sites such as a Committee of Management approach.

4.1.7 Define and promote 'duty of care' principles to all land managers.

Local Area Plans

The development of Local Area Plans (LAPs) is being trialed in several parts of the Catchment. LAPs strengthen partnerships between stakeholders and refine the sense of understanding of what land managers within a local area want to achieve.

Objective

5 Ensure that local community circumstances are reflected in natural resource management plans.

LAPs also provide the mechanism to relieve the administrative burden on the community of preparing annual project submissions. Properly compiled LAPs will promote a pro-active attitude to vegetation management and provide the basis for funding submissions in their own right.

Strategy

5.1 Promote the use of LAPs to articulate what the local communities want to achieve.

Tasks

5.1.1 Include native vegetation goals in LAPs.

5.1.2 Develop LAPs as the basis for future funding applications.

Best Management Practice (BMP) approach

Decisions affecting native vegetation are often made outside any easily understood or rigorous framework and because there is often a long time delay between degradation of native vegetation and the consequences for the environment, we are only discovering now the errors in judgment made 10, 50 or more years ago.

Objective

6 Improve decisions made by all stakeholders in managing native vegetation.

Best management practices (BMPs) result from decisions based on the best available information and consider the current and future needs of a land manager, the rest of the community, and land capability.

BMPs apply equally to policy development approaches and implementation of works, research, monitoring and reporting, cost-sharing arrangements, and advisory roles.

BMPs can be included in Codes of Practice, Management Plans, Conservation Covenants and licensing conditions. They can be used as elements of extension programs and form the basis of benchmarking, monitoring and evaluation processes. BMPs can be adopted by industry, capturing their involvement and providing the opportunity for them to show their commitment to sustainable practices.

The development of BMPs is a participative and ongoing process in partnership with the community and industry service providers. We favour a self-regulatory culture for adoption of BMPs, which means that land managers need to be in a position to clearly demonstrate responsible practices if required. Those developing BMPs need to recognise that they will be implemented in a complex environment of differing value judgments, pressures and opportunities. They must allow for human aspirations, technical limitations and opportunities, and financial realities.

Significant studies on identifying appropriate practices on riparian land have been carried out and are in progress in the Catchment. A draft package of ‘Operational Guidelines’ for environmental management has been produced by NRE’s Environmental Management Group at Tatura and these form a solid base from which to develop BMPs.

Benchmarks for BMPs have been established and are used as surrogate measures for other natural resource management issues. In the Goulburn Broken, they have been used in implementing the Water Quality Strategy; in Canada, they have been used for various aspects of environmental management, from pesticide usage to vegetation and wetlands management.

Strategy

6.1 Focus on a BMP approach to native vegetation management on all land tenures, including private land, leased public land, land managed by utilities, and roadsides.

Tasks

- 6.1.1 Continue to identify BMPs for riparian management and opportunities for broadening scope.
- 6.1.2 Update Codes of Practice in line with BMPs.
- 6.1.3 Include BMPs in Crown Frontage licences.

- 6.1.4 Include BMPs in licences for NRE Forests land.
- 6.1.5 Include BMPs in licences for Parks Victoria land.
- 6.1.6 Encourage G-MW to demonstrate management of land to according to BMPs.
- 6.1.7 Continue development of BMPs in Shepparton Irrigation Region Implementation Committee area.
- 6.1.8 Identify BMPs for ‘mixed’ farms.
- 6.1.9 Identify BMPs for ‘grazing’ farms.
- 6.1.10 Include BMPs in statutory planning for planning and zoning applications.
- 6.1.11 Carry out ecological monitoring of BMPs to assess whether they are achieving the ecological/conservation goals intended.

The Murray Darling Basin Commission is also investing heavily in refining a BMP approach to natural resource management.

Some industries, such as dairying and horticulture, have well-developed management practices from which to develop industry-wide BMPs. Other industries, particularly grazing, have less sophisticated production processes. The information requirement, scope and content of BMPs will need to reflect these circumstances.

Strategy

6.2 Focus on partnerships between primary industries and agencies to develop a BMP approach on private land where industry interest exists.

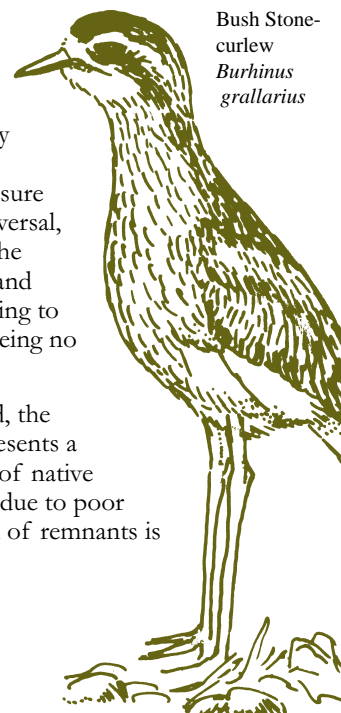
Tasks

- 6.2.1 Develop a collaborative approach with industry bodies, such as the dairy and horticulture industries.

‘No net loss’, ‘net gain’ and ‘proponent onus’

One of the goals for biodiversity management listed in *Victoria’s Biodiversity Strategy 1997* is “to ensure that within Victoria 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”.

While the intent of this is sound, the ability to measure progress represents a challenge. The incremental loss of native vegetation through degradation due to poor management and direct removal of remnants is a critical problem to resolve.



Bush Stone-curlew
Burhinus grallarius

Implementation of this Strategy depends on developing a mechanism that accommodates the need for rational ongoing development of land without compromising the principle of ‘no net loss’. The value of a remnant in a reasonably intact state is much higher than removal and replacement with an alternative planting.

Objective

7 Ensure that any clearing that is permitted and/or occurs is more than balanced by identified gains in extent and/or quality of native vegetation at the Catchment-scale.

Local government has a pivotal role in implementing mechanisms to ensure that before the clearing of native vegetation occurs net conservation gains are clearly demonstrated by proponents. This can be achieved by clearly identifying and protecting significant native vegetation through the use of environmental overlay controls, requesting adequate information with applications for native vegetation removal such as detailed site plans or whole farm plans, and requesting an evaluation of alternative development options.

There are also several possible mechanisms that may be available to local government to address the issue of incremental loss. These include assurance bonds and setting upper limits on the levels of removal within a given time. These mechanisms will be explored as the Strategy is implemented.

Administrative and works costs for demonstrating and achieving net conservation gains should be borne by those removing or degrading native vegetation.

Strategy

7.1 Proponents of developments must demonstrate conservation gains prior to native vegetation removal.

Tasks

7.1.1 Contribute to development by NRE of the system for implementing the ‘no net loss’ goal at the statewide scale.

7.1.2 Develop processes to enable application of the statewide system for implementing the ‘no net loss’ goal at the Catchment-scale for the Goulburn Broken.

7.1.3 Apply the ‘polluter pays’ principle to native vegetation removal such that procedures are established to transfer costs to those who are responsible for the loss or degradation of native vegetation.

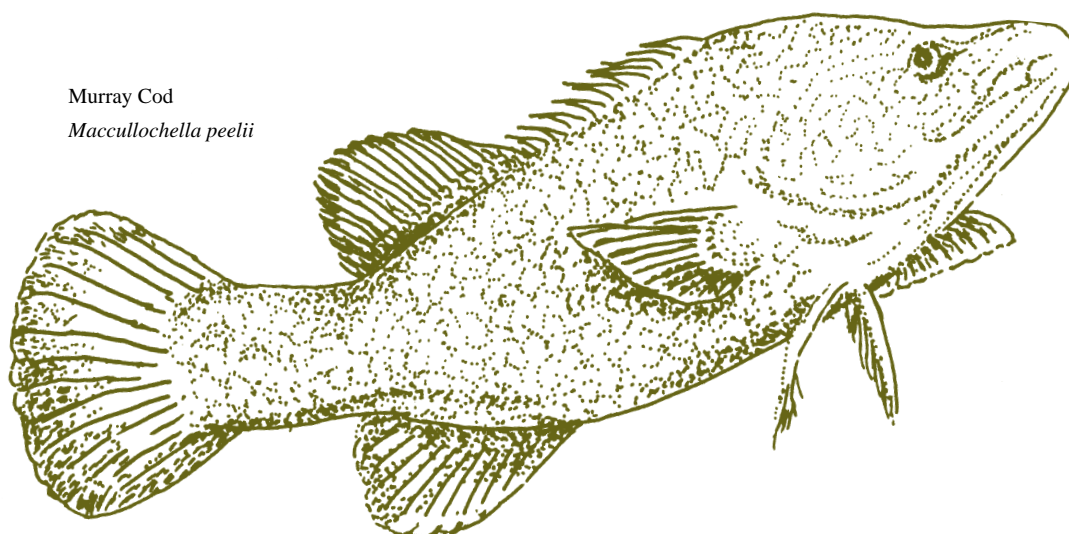
7.1.4 Develop a protocol to ensure that proponents demonstrate conservation gains prior to native vegetation removal, which might include:

- Submission of a whole farm plan.
- Alternatives that could be considered.

7.1.5 Reinforce the precautionary principle in assessing proposals to remove native vegetation: the onus is on developers when the impact on native vegetation is uncertain.

7.1.6 Compile issues and options paper on native vegetation removal issues, including consideration of compensation measures, assurance bonds, and setting upper limits on levels of removal within a given time.

Murray Cod
Maccullochella peelii



8 Action Area 2: Tools for better decisions – targeting investment

More investment will be required to finance the protection and enhancement works needed to achieve the Strategy's goals. However, financial and human resources are finite so there must be a sense of priority if we are to invest these resources to maximise nature conservation benefits. The decisions required will be made at all levels: statewide, regional and local.

Objective

8 Ensure that resources are invested so that the optimal return is achieved according to an agreed set of priorities and the principles for priority setting in native vegetation management.

Principles for priority setting

While the principles described in Part B help determine the priorities they do not, in themselves, allow us to say where works should occur or where resources would be best 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.

Regional development will continue and circumstances will arise where clearing of remnants is inevitable. Only by having a sense of priority can we expect to manage the conflicting processes of development and protection of the native vegetation resources. Decisions need to be made to ascertain what *locations* are more likely to provide maximum nature conservation benefits for the resources invested.

Priorities for the three levels of decision making

To identify the locations for works across the Catchment, it is helpful to break up the planning task according to scale. There are three scales of planning identified in this Strategy:

- 'Big picture' policy issues – regional (Catchment) scale or *strategic* level;
- Integration and co-ordination of programs and community planning – sub-Catchment-scale or *tactical* level; and
- Works to be done by local land managers – site (such as farm) scale or *operational* level.

Priorities need to be established at each level and they need to complement those at the adjoining level. The links between the directions set in the Strategy and its implementation are enhanced considerably when it can be shown that what's done 'in the paddock' reflects what is important at the Catchment-scale.

Priorities are used to align on-ground activities with what are considered the Strategy's strategic and tactical imperatives. This helps provide a clear focus for the community and relevant agencies on where activities are most likely to be effective. Priorities underpin the development of targets and targets instil a sense

of common mission in the community. We know collectively what we are tackling, and clear reporting of progress gives us all a collective sense of achievement. The evolution of a 'target culture' is critical to the success of the Strategy.

The challenge is to implement a process that allows the relative value of remnants to be measured and to ensure that efforts to protect and enhance native vegetation are focused on those areas, vegetation types and remnants where it will be most effective. The principles (as described in "What are our goals?") run through all levels of planning.

A range of attributes can be used to value remnant vegetation. These can be grouped in two categories:

- **Existence values**, which include site values, declared areas of significance and ecosystem status. These relate in particular to principles for protecting and managing existing remnants.
- **Functional values**, which relate to the function or role that the remnants perform by their existence. This includes spatial characteristics, refuges and links, and quality of remnant vegetation and is aligned with the principle for enhancing linkages and connectivity.

Existence values

(protection and management of sites)

Site values: Site values arise from the presence of rare or threatened species or a locally significant species. There are also 'areas of unique value', which are areas of an 'unusual variant of a vegetation type'.

Declared areas of significance: These are sites or areas that are specifically declared in national and international treaties or recognised by State and Federal governments in official agreements.

Ecosystem status: This refers to the type of vegetation. Some types of vegetation, such as those belonging to the Plains Grassy Woodlands BVT, are of particular concern in the region because of the extent of loss (conservation status) and the low level of reservation (reservation status).

Functional values

(enhancement of linkages and connectivity)

Refuges/Links: Some remnants provide habitat for species at particular times of the year or function as a refuge during difficult seasonal circumstances. Remnants may provide sanctuary during the breeding season and may be associated with permanent or late season supply of water or with particular vegetation types or condition of vegetation types. This includes biolinks, corridors that allow passage between bioregions such as the Goulburn River, Broken River and the Broken Creek.

Spatial characteristics: Enhancing linkages is more than simply planting trees between remnants. The type of vegetation, the creation of viable networks of vegetation, and the re-creation of habitat all need to be considered. The size of remnants, their shape and their proximity to other remnants are all important in determining just how useful a remnant is.

Regional (Catchment) planning – the strategic level

Priority Action Zones

On private land, public investment (usually in the form of incentives and extension support) will generally be highest where nature conservation benefits are greatest. Catchment-scale maps can be developed to enhance decision making at the strategic level. Priority Action Zones (Map 10) indicate where activities are best directed so goals are *most likely* to be achieved. In developing priorities for native vegetation activities at finer scales, this broad information must be used in conjunction with locally specific information, such as threatened flora and fauna sites, quality of remnants, reservation status of vegetation types, and Ecological Vegetation Class when it becomes available.

Protection of existing remnants is most important. However, the greatest investment needed is in increasing cover of depleted vegetation types. In some circumstances, cost-effective gains will come from improving management of existing areas of native vegetation. Information on depleted Broad Vegetation Types presents the greatest opportunity to develop a strategic approach to result in broad landscape change. The most severely depleted BVTs exist on private land or on small blocks of public land within a landscape that is predominantly privately owned.

Areas targeted for protecting and connecting are based on the extent of depletion of vegetation class and the existence of remnants of adequate size and type to build on. Lower priority sites are where remnants are not representative of depleted Broad Vegetation Types or are small and highly fragmented and there is insufficient existing vegetation to build on.

Strategy

8.1 Promote balanced investment in native vegetation management using Catchment-scale goals and maps as a guide.

Tasks

8.1.1 Develop targets and steps to achieving them based on this Strategy's Goals for 2030 and integrate these into Implementation Committee Business Plans.

8.1.2 Modify targets and steps to achieving goals using Nature Conservation Priority Action Zone maps (or equivalent) as they become available and progressively refine maps as biodiversity information is included.

8.1.3 Use the most appropriate dataset to set priorities in vegetation communities most in need and use Ecological Vegetation Classes for strategic (Catchment-scale) planning when it becomes available.

8.1.4 Compile an inventory of Victorian Rare or Threatened Species (VROTS) sites and identify management opportunities, including costs and benefits, and develop a plan to ensure that investment in VROTS sites is appropriate.

8.1.5 Compile an inventory of opportunities for increasing reservation status of remnants, including likely costs and benefits.

Program management and community planning – the tactical level

Decisions at this level include linking delivery of the program to the Strategy, deciding on the feasibility of completing works, evaluating the cost-effectiveness of works and implementing cost-share arrangements equitably. Factors that play a major role in the development and success of environmental works activities at this level – such as land tenure, community awareness and receptiveness – are critical to the Strategy's implementation. The influence of these different factors can be included in the GBCMA and agency business planning process and the community local area planning process.

Strategy

8.2 Promote the development and integration of agency business and local area planning initiatives using appropriate technical information.

Tasks

8.2.1 Develop tools to support effective, efficient and accountable program delivery, for example readily accessible maps at the appropriate scale.

8.2.2 Ensure future funding arrangements reflect the priorities of this Strategy.

8.2.3 Use Local Area Plans as the basis for future funding applications and integrate native vegetation management goals into GBCMA and agency business plans.

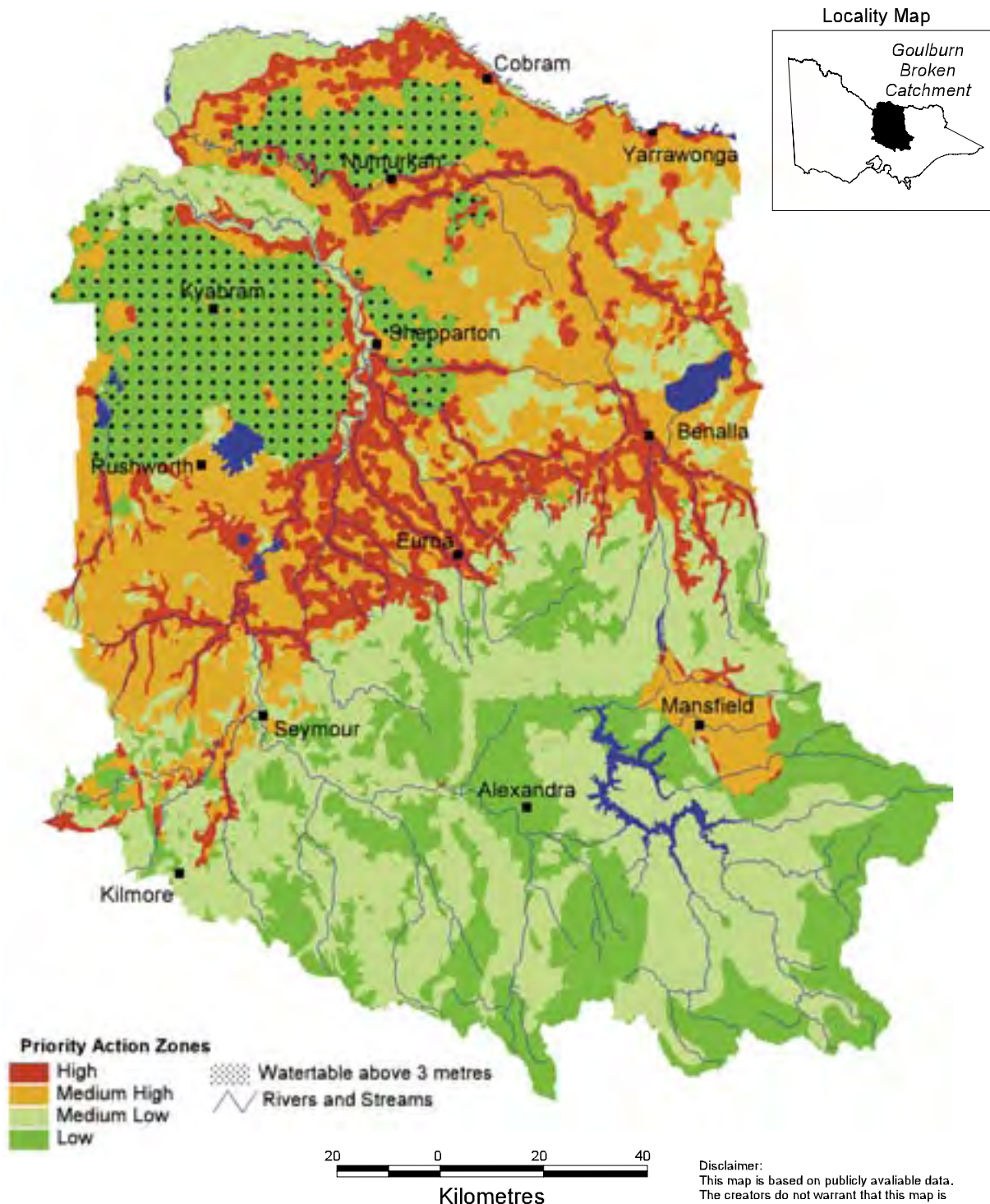
Site planning – the operational level

A risk assessment is an important part of planning for works on targeted remnants. This assesses the value of enhancing the remnant's condition or connectivity in terms of its context and quality, and the threats to the remnant's viability now and in the future. Planning and communication will be significantly improved through technical advances in mapping native vegetation cover. Remote (satellite) sensing (showing 'presence'/'absence' of vegetation) can be integrated with EVC mapping to enhance siting of works.

Map 10

Nature Conservation Priority Action Zones –

Protecting and Connecting Depleted Broad Vegetation Types.



This map indicates where investment needs to be targeted to achieve the goal listed in the Goulburn Broken Native Vegetation Management Strategy 1999: "Increase the cover of all depleted Broad Vegetation Types (BVTs) to at least 15% of their pre-European vegetation cover by 2030."

This is the first Catchment-scale native vegetation map. Subsequent Catchment-scale maps for complementary issues such as Victorian Rare or Threatened Species and Aquatic Ecosystems will be developed.

See Table 2 for Priority Setting rules.

Disclaimer:
This map is based on publicly available data. The creators do not warrant that this map is definitive nor free of error and do not accept liability for loss arising from use of this product beyond its original purpose.

Produced by the GIS Group
Department of Natural Resources and Environment
Institute of Sustainable Irrigated Agriculture
Tatura Centre 03 58335222
April 1999 HR98076
Base Information from AUSLIG 1:500000 Geodata



Table 2: Priority-setting rules for establishing the first * Catchment-scale native vegetation map:

Nature Conservation Priority Action Zones			
– Protecting and Connecting Depleted Broad Vegetation Types			
		Proximity and Size	
		Close or Large	Distant
Broad Vegetation Type (BVT) Cover	Less than 10% (severely depleted)	High	Medium-High
	10-30% (moderately depleted)	Medium High	Medium-Low
	30-50%	Medium-Low	Low
	Greater than 50%	Low	Low
Watertable	Within 3m of surface	Low	Low

* subsequent Catchment-scale maps for complementary issues such as Victorian Rare or Threatened Species and Aquatic Ecosystems will be developed.

Definitions:

- Close = remnant (greater than 1 ha) within 800 m of another remnant (greater than 1 ha)
- Large = remnant greater than 20 ha
- Distant = remnant further than 800 m from another remnant (greater than 1 ha)
- BVT Cover = percentage remaining in 1993 of that present prior to European settlement

Watertable: areas at risk from rising water table have been rated as low priority where the watertable is within 3 m of the soil surface irrespective of the ranking resulting from other criteria.

Data sources:

- Remnant size: Department of Natural Resources and Environment Corporate Database - *Tree 100 layer 1993* – can be used to identify remnants greater than 1 ha.
- BVT: Department of Natural Resources and Environment Corporate Database
- Watertable: August 1996 Map of the Shepparton Irrigation Region produced by Sinclair Knight Merz for Irrigation Committee of Goulburn Broken and North Central Catchment Management Authorities.

A note on threats, resource condition and risk assessment

A common approach to resource assessment is to overlay threatening processes on to resource condition. This can be used to assess important areas most at risk. The focus in producing the Priority Action Zones in this case is on resource condition because, although threatening processes are all pervasive, they are not generally suited to analysis at the Catchment-scale. One of the few threats that can be assessed at the Catchment-scale is the presence of water tables within 3 m of the surface. The presence of watertables, usually saline, within the root zone of native vegetation, especially trees, diminishes their viability.

Risk assessments are best done at the local level where threats can be more clearly defined. The threats to vegetation in the Catchment are many and varied and the nature of a specific threat will determine the type of works to be carried out.

Strategy

8.3 Ensure adequate risk analysis for on-ground works to enhance connectivity or protect existing remnants on private land.

Tasks

8.3.1 Develop a system for assessing the suitability of on-ground works that is consistent with the reporting and monitoring functions of this Strategy.

8.3.2 Integrate the use of remote-sensed data and landscape ecology planning with local community initiatives.

8.3.3 Align work plans of the GBCMA and agencies and operational activities with the priorities in this Strategy.

Who pays how much for what?

Defining where we want to invest our resources, on what types of native vegetation and what types of action articulate the *areas* of responsibility of each stakeholder. However, the *level* of each stakeholder's responsibility within these areas can really only be determined by articulating the resources which are available to carry out the actions. Our knowledge in this area is limited, mainly because the methodology of how to *value* native vegetation and nature conservation benefits in economic terms is still in its infancy.

We can apply some previous experience in the Catchment to the sharing of costs between stakeholders so that higher priorities are favoured. For example, changing the cost-sharing arrangements will enable levels of activity in the High and Medium-High Priority Action Zones to be greater.

Qualitative judgments need to be made to take into account both quantifiable and non-quantifiable benefits, such as the sustainability of ecosystems and the well-being of social fabric, in any investment analysis.

Objective

9 Ensure that all stakeholder costs and benefits in native vegetation management are clearly identified so that appropriate levels of investment are made.

Identifying major stakeholders and determining what is required to shift their behaviour to meet publicly stated goals is critical in developing cost-sharing arrangements.

Much of the original clearing of vegetation was in accord with the community attitude of the time and it would be inequitable and unreasonable if the full cost of repairing the damage to the environment fell to private land managers. It is important to recognise that private land managers already make a significant contribution to these remediation programs, in both land and resources. It is accepted that the wider community is the major beneficiary of the rehabilitation and protection of native vegetation.

This Strategy accepts the principle established in the Victorian Government's *Nutrient Management Strategy 1997* that: "Government may share in the cost to facilitate the uptake of nutrient management so that the broader environmental, economic and social objectives are met (i.e. for the public benefit)."

Cost-sharing principles have been established for environmental works in salinity, waterways restoration works, and soil conservation schemes.

Implementation of native vegetation works will often have multiple benefits that accumulate over time. These benefits are likely to accrue without being recognised and this undermines the equity of cost-share arrangements with land managers and between programs. A system that recognises the cumulative impact of native vegetation works would allow for more equitable cost-share arrangements.

Integration with other programs requires a consistent system of cost sharing to be developed. The focus needs to be on the promotion of equity and rational cost-share arrangements. Such arrangements should reflect the extent of the public benefit and take into account the different imperatives of the individual programs, while recognising that there are multiple benefits. The multiple objectives would include soil conservation, pest plants and animals, salinity, water quality, biodiversity, and greenhouse gases.

As part of the process of integrating cost share arrangements, standards will be needed for the:

- type of fencing, according to its intended use;
- density of planting for revegetation works and mix of understorey; and
- source of plant material for revegetation or protection works.

In practice, there are different requirements, depending on the task at hand, but it is important that the rationale for cost-sharing arrangements is clearly articulated, equitable and transparent.

Strategy

9.1 Promote equitable sharing of costs for implementing the Strategy to encourage accountability (appropriate individuals/organisations pay the appropriate share) and targeting (participation in areas where it is needed most).

Tasks

9.1.1 Identify all contributions (costs) borne by partners in native vegetation management.

9.1.2 Develop a process for measuring the full range of benefits and the rationale for investment in native vegetation management.

9.1.3 Build on the multi-objective approach to integration of cost share arrangements being developed for riparian zones so that it extends across all programs of the GBCMA.

9.1.4 Identify mutually beneficial native vegetation projects for greenhouse gas control and nature conservation.

9.1.5 Define standards for protection and enhancement (fencing, tree planting, direct seeding, etc) used in revegetation works according to the purpose of the work and the need to integrate with existing vegetation in the local areas.



Growling Grass Frog
Litoria raniformis

9 Action Area 3: Ongoing improvement

True partnerships are only established when boundaries of responsibility are clearly defined and agreed to by each stakeholder, and this is best achieved by co-participation in complementary forums. It is also critical that participants have a mutual understanding of progress.

Reporting

There have been several attempts to produce indicators of performance; however, these have mostly been too difficult, too expensive or not relevant to those implementing improvements.

The emerging usefulness of satellite imagery in terms of detail and accessibility will be extremely important in monitoring progress, especially losses and gains in native vegetation cover.

Objective

10 Report progress in native vegetation management in a clear and meaningful way.

The Catchment's two salinity plans have provided the most relevant and appropriate mechanisms for reporting on progress with native vegetation management, having developed a strong culture of accountability. This culture needs to be extended and Implementation Committees are best placed to do this, with technical assistance through the likes of NRE-established Bioregional Networks.

Catchment condition reporting, a requirement of the GBCMA under the Catchment and Land Protection Act, adds further rigour to the reporting process. Individual land managers must be able to demonstrate their contribution to native vegetation management. This includes private and public land managers.

Opportunities may exist to accredit those farming systems which best reflect the use of appropriate management practices, particularly those in keeping with the principles of the Strategy.

Strategy

10.1 Promote a reporting framework that emphasises the link between those making the changes (implementers) and those at Catchment, State and national levels.

Tasks

10.1.1 Develop a framework for reporting based on land manager type for the three Implementation Committees' area:

- using bioregional boundaries;
- using information from public land managers, such as management plans, Codes of Practice and Regional Forestry Agreements;





- capitalising on advances in geospatial technology;
- contributing this information to the GBCMA's five-year Catchment Condition reporting; and
- making information readily accessible, possibly via the Internet.

10.1.2 Develop partnership agreements with local government, utilities and other organisations.

10.1.3 Develop accountability processes for each type of land manager through the three Implementation Committees and Bioregional Networks.

10.1.4 Undertake a study to consider accreditation of properties for which management conforms to this Strategy and complementary natural resource management programs.

Monitoring and evaluation

Our preferred approach to native vegetation management is defined by this Strategy *at the time of writing*. The Strategy establishes the processes that allow improvements to this approach to be made.

The Goals, Objectives, Strategies and Tasks have been shaped so that the success of their implementation can be monitored, measured and evaluated. This allows us to identify shortcomings and modify our strategies.

Objective

11 Ensure that Strategy implementation is monitored and that underlying assumptions are regularly reviewed and appropriate modifications are made.

The Strategy places a high value on working with existing programs and other agencies (especially local government, utilities and authorities) to develop a co-ordinated and integrated approach to monitoring and evaluation. Monitoring and evaluation focuses on two levels of information:

- the *approach* taken by stakeholders (as defined by task completion and objective achievement); and
- the *condition* of native vegetation (as defined by goals).

Task completion is easily monitored, but must be evaluated in the context of native vegetation condition improvement.

Monitoring and evaluation processes must be part of the 'really big picture' – the contribution of our Catchment to environmental health of the state, the nation and the planet. This can be achieved by linking the processes with Catchment condition reporting, which will be supported by linkages with Bioregional Networks. A major review of the Strategy will be necessary every few years.

Strategy

11.1 Promote a monitoring, evaluation and modification cycle as Strategy implementation proceeds.

Tasks

11.1.1 Establish a program that monitors via Implementation Committees, with technical guidance from Bioregional Networks:

- task achievement within Action Areas; and
- native vegetation condition changes.

11.1.2 Evaluate the Strategy's implementation annually, which includes contributions from each Implementation Committee, and modify approaches accordingly.

11.1.3 Conduct a major review of the Strategy every few years in tandem with other GBCMA review processes. This might recognise opportunities for incorporating this Strategy into a broader 'Biodiversity Strategy'.

Opposite page: Naturally regenerating Grey Box woodland.

This page from left: Galah *Cacatua roseicapilla*.

Musk Lorikeet *Glossopsitta concinna*.

Southern Boobook Owl *Ninox novaeseelandiae*.

10 Timelines and Responsibilities

Note: Timelines given are indicative; the ability to perform tasks depends on availability of resources. Many tasks can be performed opportunistically using existing resources and many others will need new investment. Tasks being performed by GBCMA Committees will be included in the GBCMA Business Plan.

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
Action Area 1: Processes for making better decisions – Participation and Partnerships. GBCMA and allied programs					
1 Ensure a high level of community participation in all levels of decision making on native vegetation management in programs in which the GBCMA has an influence.	Stakeholder satisfaction with opportunities to participate in decision making.	1.1 Actively encourage key stakeholder groups to be represented on key decision-making forums.	1.1.1 Achieve appropriate representation through existing Catchment processes, such as: <ul style="list-style-type: none"> • Co-ordination Committees • Implementation Committees • Implementation Committee sub-committees • Regional Assessment Panel 1.1.2 Publicise representation process through stakeholder groups.	ongoing	GBCMA Implementation Committees Co-ordination Committees
		1.2 Promote a Catchment-scale approach to policy development concerning biodiversity, with an emphasis on a close linkage between policy development and implementation.	1.2.1 Establish the Biodiversity Committee, which will co-ordinate policy development for the Catchment. This Committee has a sunset clause of 2002, at which time GBCMA and Implementation Committees and Local Government will be expected to co-ordinate further policy development.	1999	GBCMA
2 Ensure opportunities for complementary outcomes in major GBCMA and allied natural resource management activities are grasped.	Transparent reporting of native vegetation management in all programs demonstrate gains.	2.1 Promote this Strategy's mission and goals through the GBCMA's three Implementation Committees.	2.1.1 Include this Strategy's objectives, strategies and tasks in all programs of the three Implementation Committees' Business Plans. These programs include: <ul style="list-style-type: none"> • Waterways • Water quality • Pest plants and animals • Floodplain • Salinity • Greenhouse 2.1.2 Establish Catchment-scale native vegetation maps complementary to the 'Nature Conservation Priority Action Zone – Protecting and Connecting Depleted Broad Vegetation Types' map of this Strategy (Action Area 2) and develop approaches for: other nature conservation issues, such as aquatic ecosystems, reservation and rare or threatened species <ul style="list-style-type: none"> • Waterways • Water Quality • Pest plants and animals • Floodplain • Salinity • Greenhouse 	2000	Implementation Committees
				2000	Biodiversity Committee

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
Other agencies and non-government programs					
3 Ensure key agency and producer industry organisations adopt the Strategy by including its principles and priorities in their own strategies and programs.	Transparent reporting of native vegetation in all relevant programs.	3.1 Promote adoption of this Strategy by community organisations.	3.1.1 Include Strategy principles and priorities in Local Government programs and amend municipal strategic statements accordingly.	2002	Local Government GBCMA
			3.1.2 Expand Dryland and Irrigation Municipal Catchment Co-ordinator positions to include biodiversity, and have staff occupying these positions represent Local Government on the Biodiversity Committee.	1999	Local Government
			3.1.3 Include Strategy principles and priorities in programs of key agencies, including: <ul style="list-style-type: none"> Goulburn-Murray Water Parks Victoria Forests Service, NRE Utilities Environment Protection Authority Alpine resorts management boards, Educational institutions, Department of Defence 	2002	Biodiversity Committee, G-MW, Parks Victoria, Forests Service, NRE, Utilities, Environment Protection Authority, Alpine resorts management boards, Educational institutions, Department of Defence
			3.1.4 Include Strategy principles and priorities in non-government organisation programs including: <ul style="list-style-type: none"> Landcare networks Trust for Nature Greening Australia Victoria Australian Trust for Conservation Volunteers (ATCV) • Philanthropic Trusts 	2001	Biodiversity Committee, Non-government organisations including: Landcare networks, Trust for Nature, Greening Australia Victoria, Australian Trust for Conservation Volunteers (ATCV), Philanthropic Trusts
			3.1.5 Develop opportunities in conjunction with tertiary institutes, particularly those within the Catchment, to add to the adaptive science that underpins this Strategy.	ongoing	Biodiversity Committee Tertiary institutes
			3.1.6 Investigate possibility of adapting VicRoads' model for operational planning to Local Government.	2002	Local Government

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
Communication and local ownership					
4 Ensure local ownership of local problems and solutions.	Stakeholder satisfaction with opportunities to participate	4.1 Promote a strategic approach to communication with all land managers through processes that encourage local ownership of local problems.	<p>4.1.1 Develop and implement a Communication Strategy which: includes all land managers but has an emphasis on farmers</p> <ul style="list-style-type: none"> Establishes benchmarks for awareness and understanding Uses principles of adult learning Focuses on appropriate levels of decision making (Strategic, Tactical, or Operational) Focuses on areas within control of private land managers Makes information readily available, including via Internet Uses information about possible community group projects gathered by Raven (1997). <p>4.1.2 Build on current focus of publicly funded extension programs on community groups, such as Landcare groups (and networks of community groups), to effect change.</p> <p>4.1.3 Develop a campaign-style approach to implement the Strategy (such as the Superb Parrot Project).</p> <p>4.1.4 Develop a partnership approach between natural resource managers and industry bodies.</p> <p>4.1.5 Disseminate information gathered by Local Government and NRE (Flora and Fauna) on roadside vegetation values.</p> <p>4.1.6 Develop partnership management agreement processes for managing 'local sites of native vegetation significance', such as a Committee of Management approach.</p> <p>4.1.7 Define and promote 'duty of care' principles to all land managers.</p> <p>5.1.1 Include native vegetation goals in Local Area Plans (LAPs).</p> <p>5.1.2 Develop LAPs as the basis for future funding applications.</p>	2000	Biodiversity Committee
				ongoing	Implementation Committees
				ongoing	Implementation Committees
				ongoing	Biodiversity Committee, Implementation Committees
				2000	Local Government, NRE
				2002	Biodiversity Committee
				ongoing	Biodiversity Committee
				ongoing	Implementation Committees
				ongoing	Implementation Committees
5 Ensure that local community circumstances are reflected in natural resource management plans.	Local community satisfaction with management of natural resources.	5.1 Promote the use of Local Area Plans to articulate what the local communities want to achieve.			



Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
Best Management Practice (BMP) approach					
6 Improve decisions made by all stakeholders in managing native vegetation.	Progress towards goals	6.1 Focus on a BMP approach to native vegetation management on all land tenures, including private land, land leased public land, land managed by utilities, and roadsides.	6.1.1 Continue to identify BMPs for riparian management and opportunities for broadening scope.	ongoing	Riparian Project Steering Committee, Biodiversity Committee
			6.1.2 Update Codes of Practice in line with BMPs.	2002	All land managers with formalised guidelines such as Codes.
			6.1.3. Include BMPs in Crown Frontage licences.	2002	Riparian Project Steering Committee
			6.1.4 Include BMPs in licences for NRE Forests land.	2002	NRE (Forests)
			6.1.5 Include BMPs in licences for Parks Victoria land.	2002	Parks Victoria
			6.1.6 Encourage G-MW to demonstrate management of land to according to BMPs.	2002	G-MW
			6.1.7 Continue development of BMPs in Shepparton Irrigation Region Implementation Committee area.	2002	Shepparton Irrigation Region Implementation Committee, Biodiversity Committee
			6.1.8 Identify BMPs for 'mixed' farms.	2002	Biodiversity Committee
			6.1.9 Identify BMPs for 'grazing' farms.	2002	Biodiversity Committee
			6.1.10 Include BMPs in statutory planning for planning and zoning applications.	ongoing	Implementation Committees
			6.1.11 Carry out ecological monitoring of BMPs to assess whether they are achieving the ecological/conservation goals intended.	ongoing	Biodiversity Committee
		6.2 Focus on partnerships between primary industries and agencies to develop a BMP approach on private land where industry interest exists.	6.2.1 Develop a collaborative approach with industry bodies, such as the dairy and horticulture industries.	2002	Biodiversity Committee, Shepparton Irrigation Region Implementation Committee

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
‘No net loss’, ‘net gain’ and ‘proponent onus’					
7 Ensure that any clearing that is permitted and/or occurs is more than balanced by identified gains in extent and/or quality of native vegetation at the Catchment-scale.	Demonstration of ‘no net loss’ in the Catchment.	7.1 Proponents of developments must demonstrate conservation gains prior to native vegetation removal.	7.1.1 Contribute to development by NRE of the system for implementing the ‘no net loss’ goal at the statewide scale.	ongoing	Biodiversity Committee
			7.1.2 Develop processes to enable application of the Statewide system for implementing the ‘no net loss’ goal at the Catchment-scale for the Goulburn Broken.	ongoing	Biodiversity Committee
			7.1.3 Apply the ‘polluter pays’ principle to native vegetation removal such that procedures are established to transfer costs to those who are responsible for the loss or degradation of native vegetation.	2000	Biodiversity Committee, Implementation Committees
			7.1.4 Develop a protocol to ensure that proponents demonstrate conservation gains prior to native vegetation removal, which might include: <ul style="list-style-type: none">• Submission of a whole farm plan.• Alternatives that could be considered.	2001	Biodiversity Committee with Implementation Committees
			7.1.5 Reinforce the precautionary principle in assessing proposals to remove native vegetation: the onus is on developers when the impact on native vegetation is uncertain.	ongoing	Implementation Committees
			7.1.6 Compile issues and options paper on native vegetation removal issues, including consideration of compensation measures, assurance bonds, and setting upper limits on levels of removal within a given time.	2000	Biodiversity Committee
Action Area 2: Tools for better decisions – targeting investment Regional (Catchment) planning – the strategic level					
8 Ensure that resources are invested so that the optimal return is achieved according to an agreed set of priorities and the principles for priority setting in native vegetation management.	Reporting includes quantified costs and benefit	8.1 Promote balanced investment in native vegetation management-scale goals and maps as a guide.	8.1.1 Develop targets and steps to achieving them based on this Strategy’s Goals for 2030 and integrate these into Implementation Committee Business Plans.	2000	Implementation Committees
			8.1.2 Modify targets and steps to achieving goals using Nature Conservation Priority Action Zone maps (or equivalent) as they become available and progressively refine maps as biodiversity information is included.	ongoing	Biodiversity Committee, Implementation Committees
			8.1.3 Use the most appropriate dataset to set priorities in vegetation communities most in need and use Ecological Vegetation Classes (EVCs) for strategic (Catchment-scale) planning when it becomes available.	2000	Biodiversity Committee

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
			8.1.4 Compile an inventory of Victorian Rare or Threatened Species (VROTS) sites and identify management opportunities, including costs and benefits, and develop a plan to ensure that investment in VROTS sites is appropriate.	2000	Biodiversity Committee
			8.1.5 Compile an inventory of opportunities for increasing reservation status of remnants, including likely costs and benefits.	2000	Biodiversity Committee
Program management and community planning – the tactical level					
		8.2 Promote the development and integration of agency business and local area planning initiatives using appropriate technical information.	8.2.1 Develop tools to support effective, efficient and accountable program delivery, for example readily accessible maps at the appropriate scale.	1999	Biodiversity Committee via NRE GIS Unit
			8.2.2 Ensure future funding arrangements reflect the priorities of this Strategy	2000	Implementation Committees
			8.2.3 Use Local Area Plans as the basis for future funding applications and integrate native vegetation management goals into GBCMA and agency business plans.	2000	Implementation Committees
Site Planning – the operational level					
		8.3 Ensure adequate risk analysis for on-ground works to enhance connectivity or protect existing remnants on private land.	8.3.1 Develop a system for assessing the suitability of on-ground works that is consistent with the reporting and monitoring functions of this Strategy.	2000	Implementation Committees
			8.3.2 Integrate the use of remote-sensed data and landscape ecology planning with local community initiatives.	2002	Implementation Committees
			8.3.3 Align work plans of the GBCMA and agencies and operational activities with the priorities in this Strategy.	2001	Implementation & Coordination Committees
Who pays how much for what?					
9 Ensure that all stakeholder costs and benefits in native vegetation management are clearly identified so that appropriate levels of investment are made.	Demonstration of appropriate stakeholder investment.	9.1 Promote equitable sharing of costs for implementing the Strategy to encourage accountability (appropriate individuals/organisations pay the appropriate share) & targeting (participation in areas where it is needed most).	9.1.1 Identify all contributions (costs) borne by partners in native vegetation management.	2000	Biodiversity Committee
			9.1.2 Develop a process for measuring the full range of benefits and the rationale for investment in native vegetation management.	2001	Biodiversity Committee

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
Action Area 3: Ongoing improvement			9.1.3 Build on the multi-objective approach to integration of cost share arrangements being developed for riparian zones so that it extends across all programs of the GBCMA.	2000	Biodiversity Committee
			9.1.4 Identify mutually beneficial native vegetation projects for greenhouse gas control and nature conservation.	2000	Biodiversity Committee
			9.1.5 Define standards for protection and enhancement (fencing, tree planting, direct seeding, etc) used in revegetation works according to the purpose of the work and the need to integrate with existing vegetation in the local areas.	2001	Implementation Committees
			10.1.1 Develop a framework for reporting based on land manager type for the three Implementation Committees' area: <ul style="list-style-type: none"> • Using Bioregional boundaries; • Using information from public land managers, such as management plans, Codes of Practice and Regional Forestry Agreements; • Capitalising on advances in geospatial technology; . Contributing this information to the GBCMA's five-year Catchment Condition reporting; • Making information easily accessed, possibly via the internet. 	2001	Biodiversity Committee
			10.1.2 Develop partnership agreements with Local Government, utilities and other organisations.	2002	GBCMA, Implementation Committees and Co-ordination Committees, Bioregional Networks
			10.1.3 Develop accountability processes for each type of land manager through the three Implementation Committees and Bioregional Networks.	2001	Biodiversity Committee, Implementation Committees, Bioregional Networks
			10.1.4 Undertake a study to consider accreditation of properties for which management conforms to this Strategy and complementary natural resource management programs.	2002	Biodiversity Committee, Private Industry

Objective	Performance Measure	Strategy	Tasks	Tasks to be achieved by	Group responsible
Monitoring and evaluation					
11 Ensure that Strategy implementation is monitored and that underlying assumptions are regularly reviewed and appropriate modifications are made.	Stakeholder satisfaction with Strategy's evolution.	11.1 Promote a monitoring, evaluation and modification cycle as Strategy implementation proceeds.	11.1.1 Establish a program that monitors via Implementation Committees, with technical guidance from Bioregional Networks; and	2000	Implementation Committees, Bioregional Networks, Biodiversity Committee
			• Task achievement within Action Areas; and		
			• Native vegetation condition changes.		
			11.1.2 Evaluate the Strategy's implementation at least annually, which includes contributions from each Implementation Committee, and modify approaches accordingly.	2000	Biodiversity Committee
			11.1.3 Conduct a major review of the Strategy every few years in tandem with other GBCMA review processes. This might recognise opportunities for incorporating this Strategy into a broader 'Biodiversity Strategy'.	2002 (or other appropriate date)	GBCMA, Biodiversity Committee



List of Background Papers

The following papers were produced as part of the development of this Strategy. These have been published separately as a compilation.

- Amos, N. and Berwick, S. (unpublished) *Goulburn Broken CMA Region Regional Vegetation Plan Principles and Framework for Priority Setting*, Department of Natural Resources and Environment (Flora, Fauna & Fisheries), 1998.
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- Crosthwaite, J. (unpublished) *Cost-sharing Approaches for Native Vegetation Management in the Goulburn Broken Catchment*, Background Report for Native Vegetation Management Plan Steering Committee, Institute of Food and Land Resources, The University of Melbourne, 1998.
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