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***Disclaimer***

The views expressed in this report are those of the author and do not necessarily represent those of the Commonwealth Government, Environment Australia, the National Reserve System Program or World Wide Fund for Nature (Australia).

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## **EXECUTIVE SUMMARY**

### **Guide to Best Practice Conservation of Temperate Native Grasslands**

#### **Introduction**

*... a cataclysm has reduced landscapes of colourful, unique species-rich grasslands to a few small, scattered refugia, making these grasslands the most endangered natural ecosystems in Australia. (McDougall & Kirkpatrick 1994).*

In all the temperate lowland regions of south-eastern Australia the natural grassy ecosystems have either been eliminated or reduced to small remnants. Temperate native grassland communities are regarded as requiring urgent conservation action in all regions in which they occur.

The decline in area and quality of native grasslands in south-eastern Australia continues. Indeed, it is probable that the current rate of loss is the highest for several decades.

The main threats and impediments to conservation of the remaining native grasslands include:

- Conversion to crops and introduced pasture;
- Overgrazing by introduced stock;
- Poor management of remnants;
- Urban expansion; and
- Invasion by exotic plants.

Threatening processes operate on both public and private land and are exacerbated by the common failure of landowners and government agencies to recognise native grasslands as native vegetation of conservation value.

The 'problem' of grassy ecosystem conservation has prompted the development of new thinking and new approaches that are of significance for nature conservation throughout agricultural landscapes in temperate Australia.

This project aims to ensure that the most successful methods developed for grassland conservation are documented and applied to current and new on-ground projects and that the benefits of grassland conservation to landholders and the broader community are maximised. The project aims to develop a practical vision of the nature of landscape-scale temperate grassland conservation and the means for its realisation.

#### **Conservation in Productive Landscapes**

A dramatic shift in agriculture is occurring across the fertile plains of south-eastern Australia from low-intensity grazing to more intensive use of land. With the support and encouragement of governments and industry groups, tens of thousands of hectares of new crops and pastures are being established in regions that contain the last remnants of native grasslands.

Although, regulations are in place to limit or control clearing of native vegetation, land development continues to reduce options for biodiversity conservation in these regions.

It is apparent that many landholders still do not recognise the link between sustainable agricultural production and retention of threatened remnant vegetation. As a result even where there are positive attitudes to remnant vegetation, those attitudes may not translate into action (Elix & Lambert 1997).

It appears certain that the existing threats to native grassland communities will continue and are likely to intensify. Even in those regions where there is currently little clearing in natural grassland landscapes there is a constant and continuing threat of new technology, new crops, new weeds and changed market conditions. Pressures on the viability of farms will inevitably translate into pressures on native vegetation.

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The area of high-quality native grassland remaining is a very small percentage of the total agricultural area. In the face of such uncertainty we must use legislative and planning mechanisms to secure these areas for conservation now.

## **Grassland Conservation Programs**

A decade of programs directed at addressing threats and achieving long-term conservation for species and communities has generated considerable interest in the conservation of native grassland communities throughout south-eastern Australia. Specifically these programs have:

- Increased awareness;
- Placed specific grassland extension and planning officers in most regions;
- Provided biological surveys;
- Protected a number of significant sites as conservation reserves;
- Developed management agreements for sites on public and private land;
- Identified benefits of native grassland for sustainable land management;
- Increased knowledge of appropriate conservation management;
- Included grassland communities and species in threatened species legislation;
- Incorporated grassland conservation into regional planning processes; and
- Placed the conservation of native grasslands on the conservation agenda.

In many respects the effectiveness of these projects and programs has been unquestionable and there are numerous projects that have made substantial contributions to the conservation of native grasslands. However, most of these projects have aimed to increase community involvement and increase knowledge of the distribution and composition of native grassland remnants. With the notable exception of acquisition of areas for conservation reserves, few projects have been successful in achieving long-term protection for remnants or have adopted specific strategies to this end.

## **Conservation Objectives for Temperate Native Grasslands**

At present all native grassland communities would be considered to be 'Critically Endangered' or 'Endangered' across their range (adopting the taxon ratings of IUCN 1994). The massive depletion in area and fundamental changes in environment and management that have occurred since 1770 means that even without further loss these communities will always be threatened. The goal of grassland conservation should reflect this reality.

### *Goal*

Improve the status of native grassland communities to Conservation Dependent through permanent or long-term protection and management across their range.

### *Immediate Objectives*

- Increased area of high priority native grassland permanently protected in conservation reserves;
  - Increased area of high priority native grassland on private land protected by covenants or long-term management agreements;
  - Increased area of high priority native grassland on public land protected by long-term management agreements;
  - Improved management of native grassland areas across all land tenures;
  - Increased community involvement in the management of native grasslands;
  - Increased knowledge of the distribution and composition of native grassland remnants, especially on private lands; and
  - Recognition of native grassland conservation in regional landuse planning and conservation strategies.
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## **Conservation of Temperate Native Grasslands**

A systematic and comprehensive conservation program for temperate native grasslands will include five main elements:

- Knowledge gathering and processing;
- Priority setting;
- Strategic planning;
- The means for conservation; and
- Stewardship and management.

Few programs adequately address all these elements and it would appear that without a comprehensive approach on-ground outcomes are likely to be limited or short-lived.

### ***Best Practice – Knowledge***

The most effective grassland surveys:

*Include all land tenures;*

*Include both flora and fauna values;*

*Are predictive of what may occur on other (unsurveyed) sites;*

*Identify those sites, communities and species that are the most significant for conservation; and*

*Are part of a broad strategy and linked to extension programs.*

The current knowledge of the distribution and composition of remnant native grasslands in all regions is sufficient to commence specific actions to protect high priority sites. The development of full inventories of sites or species is not a prerequisite for conservation action or for setting priorities.

### ***Best Practice – Priorities***

Although all remaining areas of native grassland are valuable there is unlikely to be sufficient capacity in any region to protect all known native grassland sites through active means. Therefore conservation priorities should be determined based on the contribution particular areas make to achieving immediate objectives and the overall conservation goal.

Native grassland conservation programs should aim to address the protection of sites that are the highest priority for conservation in the region or for the community or species concerned.

A variety of approaches can be used to assign priority including focal species, umbrella species, iterative ranking based on threatened flora and fauna and the presence of particular features or communities.

Priorities should reflect the range of conservation values, actions and messages required in a region.

### ***Best Practice – Strategy***

Grassland conservation programs should adopt a Strategic Approach to biodiversity conservation through concentrating on achieving protection for priority sites.

The community should be closely involved in the development of all strategies as many of the actions will either be performed by them or require their support.

Two outcomes are necessary for permanent protection of remnants:

- A change in the land status, tenure or property rights of the land through reservation, purchase, covenants, or other permanent management agreements; and
  - Effective management of the land in perpetuity.
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The protection of priority sites and features will establish 'icons' that can be used to promote appropriate management and act as a catalyst for grassland conservation in the broader landscape.

Strategies should include measurable indicators of success, with targets set to measure how projects address the immediate objectives of native grassland conservation.

Strategies should recognise that building relationships, trust and capacity within the community all take time.

### ***Best Practice – People***

Well-delivered extension programs are fundamental to the success of all elements of grassland conservation.

Extension programs should aim to generate long-term protection for high priority sites on both public and private land.

Grassland extension programs should run for a minimum of three years although longer periods will often be needed to secure long-term conservation and to ensure that knowledge is transferred to the community.

All extension programs should have access to suitable incentives for maintaining or adopting conservation management.

### ***Best Practice – Mechanisms***

A range of protection mechanisms including reservation, acquisition, covenants, easements and other land management agreements is required to encourage voluntary partnerships to protect biodiversity on and off reserves.

Regulations to prevent clearing of native grasslands are an essential safety net in all regions. However, regulations on their own will not bring about or maintain long-term management for biodiversity.

Acquisition for conservation (whether by government or by private organisations) of relatively large or intact areas is the most effective means of achieving long-term protection for native grassland communities.

Significant gains in reservation status can be achieved by reviewing the status and management of high priority sites on public land.

Management agreements can often be secured for native grassland areas especially on relatively unproductive parts of properties. However, innovative incentive schemes may be required to secure agreements over large or potentially productive areas.

The use of conservation easements should be investigated as a tool for native grassland conservation.

Long-term management agreements should also be used to pursue conservation objectives on public land.

Protected Area Networks provide an effective answer to the problem of developing adequate reserve systems for highly fragmented communities. All protected areas should have site-specific management plans and agreements and overall management should be coordinated across the Protected Area Network by a single organisation.

### ***Best Practice – Incentives***

Absolute management for nature conservation will almost always require some sacrifice. These costs must be recognised.

More than education is needed to change behavior: a major program of incentives will be required.

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For properties that have native grasslands of high conservation significance, a targeted approach that considers the whole-farm situation is desirable.

Incentives aimed at the conservation site can also be successful where threats to the site are relatively low and the cost of conservation is manageable.

A 'toolkit' of incentives should be developed in each region that includes practical information and advice, suitable incentives for conservation management, fencing subsidies and an ongoing stewardship scheme.

### ***Best Practice – Stewardship***

Effective management agreements must both achieve and retain strong landholder commitment by developing a partnership with the landholder.

A genuine commitment is required from government or other contracting organisations to provide ongoing advice and resources.

Grassland management should focus on outcomes – achieving specified objectives by the best means available.

Adaptive management principles should be adopted for all grasslands managed for conservation.

Sites that are reserved for conservation should be promoted as models for the protection and sustainable management of native grasslands.

### **Best Practice Models**

The Grasslands Stewards/Advisers Program of Trust for Nature (Victoria) provides the most complete model of how a grassland conservation program can operate. The program is based on the philosophy that long-term conservation on private land requires a change in property rights and effective management in perpetuity.

The key elements are:

- Identify significant remnants through surveys;
- Establish one-to-one relationships with the owners/managers of those remnants;
- Seek permanent change to tenure through covenants, purchases or other mechanisms;
- Maintain the same extension workers for the period of the program;
- Maintain extension programs for a minimum of three years;
- Use non-government (or similar) organisations rather than government agencies to build relationships with private landowners;
- Use incentives to encourage and reward conservation;
- Develop networks of protected areas on public and private land; and
- Develop a stewardship fund to provide on-going support and advice for managers of protected areas.

### **Conclusion**

The relationships, trust and capacity in local and regional communities that are required for long-term conservation of native grasslands all take time to build. Grassland programs must therefore be supported until these elements are in place.

It is clear from case studies that such long-term programs will be most effective where they are both comprehensive and strategic. Within these programs, effective extension projects that utilize a range of mechanisms for permanent or long-term protection of priority sites will be fundamental to success.

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