

**PROCEEDINGS OF THE AUSTRALIAN RANGELAND SOCIETY
BIENNIAL CONFERENCE**

Official publication of The Australian Rangeland Society

Copyright and Photocopying

© The Australian Rangeland Society 2012. All rights reserved.

For non-personal use, no part of this item may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission of the Australian Rangeland Society and of the author (or the organisation they work or have worked for). Permission of the Australian Rangeland Society for photocopying of articles for non-personal use may be obtained from the Secretary who can be contacted at the email address, rangelands.exec@gmail.com

For personal use, temporary copies necessary to browse this site on screen may be made and a single copy of an article may be downloaded or printed for research or personal use, but no changes are to be made to any of the material. This copyright notice is not to be removed from the front of the article.

All efforts have been made by the Australian Rangeland Society to contact the authors. If you believe your copyright has been breached please notify us immediately and we will remove the offending material from our website.

Form of Reference

The reference for this article should be in this general form;
Author family name, initials (year). Title. *In*: Proceedings of the nth Australian Rangeland Society Biennial Conference. Pages. (Australian Rangeland Society: Australia).

For example:

Anderson, L., van Klinken, R. D., and Shepherd, D. (2008). Aerially surveying Mesquite (*Prosopis* spp.) in the Pilbara. *In*: 'A Climate of Change in the Rangelands. Proceedings of the 15th Australian Rangeland Society Biennial Conference'. (Ed. D. Orr) 4 pages. (Australian Rangeland Society: Australia).

Disclaimer

The Australian Rangeland Society and Editors cannot be held responsible for errors or any consequences arising from the use of information obtained in this article or in the Proceedings of the Australian Rangeland Society Biennial Conferences. The views and opinions expressed do not necessarily reflect those of the Australian Rangeland Society and Editors, neither does the publication of advertisements constitute any endorsement by the Australian Rangeland Society and Editors of the products advertised.



The Australian Rangeland Society

THE SOUTHERN MALLEE REGIONAL GUIDELINES FOR THE DEVELOPMENT OF LANDUSE AGREEMENTS

A. C. Holmes and F. Deans

DLWC, PO Box 363, Buronga, NSW 2739

THE PROJECT

The Southern Mallee Guidelines were developed over a five year period to facilitate development, nature conservation, cultural heritage and sustainability issues in the Lower Murray Darling Region. The project has been funded since 1995 through the Natural Heritage Trust grant system. A number of stakeholder groups have been involved with the project from its inception, to the present, including; Department of Land and Water Conservation, National Parks and Wildlife Service, South West NSW Land Management Group, Environment Australia, NSW Department of Agriculture, World Wide Fund for Nature, Planning NSW, Australian Conservation Foundation, Balranald and Wentworth Shires, State Forests and representatives from the local Aboriginal community.

Initially, there did not appear to be an obvious solution to the conflicts related to the development of land for cultivation. Members of the South West NSW Land Management Group then proposed the potential for a "trade-off" process, which would satisfy the concerns of the major stakeholder groups. The process incorporates the concept of "trading off" or setting aside land for conservation in exchange for the approval to develop other parcels of land for dryland cultivation. The concept was analysed in detail by the CSIRO Division of Wildlife and Ecology (Freudenberger et al 1997).

The objectives of the Guidelines are to:

- Prevent further land degradation
- Ensure that natural resources are used within their capability
- Minimise adverse impacts arising from the use of natural resources
- Ensure that flora and fauna values are maintained and improved
- Promote appropriate property planning and management practises
- Preserve items and places of cultural heritage value

The project objectives are achieved through the negotiation of Land Use Agreements, which include:

- Clearing consent under the NSW Native Vegetation Conservation Act (1997)
- Cultivation consent under the NSW Western Lands Act (1901)
- Alteration of conditions of the Western Lands Lease to enable the creation of private conservation reserves in perpetuity which are managed in accordance with intent of the International Union for the Conservation of Nature (IUCN) Category IV, Habitat Species Management Area
- Registration of the development and conservation areas on Western Lands Lease Title
- A Property Agreement under the Native Vegetation Conservation Act to identify associated management practises and incentives for land to be set aside for conservation

The negotiation of Land Use Agreements, have been introduced as a provision in the Native Vegetation Conservation Act 1997, as a mechanism and incentive for landholders to manage the vegetation on their land in order to achieve biodiversity benefits.

Each land use agreement formulated under the Southern Mallee Guidelines incorporates the concept of "trading off". Currently, the Southern Mallee region (47 000 square kilometres and 5.85 % of New South Wales) has 93 % of its vegetation still intact; 5 % in public reserve, 2 % in private reserve, 86 % grazed vegetation and the remaining 7 % modified for irrigation and dryland cultivation.

Within the Southern Mallee area, regional targets for land use were established through a study conducted by the CSIRO based on sustainable development (Freudenberger et al 1997), they are as follows:

30% maximum development
20% minimum reservation
50% grazing

At a property level these targets ensure that for every hectare of development, at least one hectare is required for conservation for all vegetation communities.

Facilitation of Development

The Southern Mallee Guidelines are utilised by assessment officers as a formula to assist in the development of land use agreements through the application of a series of coarse filters to assess development applications and private conservation reserves. The coarse filters relate to the potential impact of a development proposal on threatened species, cultural heritage and land capability. The development proposal will not proceed unless the strict criteria of each coarse filter is satisfied. The areas targeted and approved for development have therefore generally been of a highly disturbed or degraded nature in order to minimise adverse impacts on the environment.

Conservation Reserves

The criteria for conservation reserve design require a large “broad” reserve in order to minimise “edge effects” and to permit the inclusion of a wide range of vegetation communities of varying age classes. Edge effects are exacerbated by a narrow reserve, as feral predatory and grazing animals are able to penetrate deeper into the conservation area. Large, broad reserves with artificial watering points decommissioned are unlikely to be as easily utilised by pest and grazing species. The project to date has resulted in a trade-off of approximately 2.5 hectares of reserved vegetation for every 1 hectare developed, largely to ease fencing requirements and most importantly due to the enthusiasm of participants wanting to make a contribution to nature conservation. Reserves created through the program are linked together wherever possible, or linked to existing National Parks or remnant vegetation, thus forming larger blocks of vegetation.

The proliferation of artificial watering points throughout Australia’s grazing rangeland has been demonstrated to have an adverse impact on some species of native flora and fauna (Landsberg et al 1997). These species have demonstrated a negative response to habitat removal caused by heavy grazing near water sources and competition with species that have expanded their range due to the increased availability of water. Some species demonstrate a decrease in abundance toward a water source and are termed “decreaser species” (eg. Hooded Robin), those that exhibit an increase in abundance are termed “increaser” species, such as the Galah and various species of Kangaroo. Few places exist in Australia’s pastoral rangelands that are more than 10 km from artificial water sources (Landsberg et al 1997). Therefore the aim of the Southern Mallee project, is to attempt to create large reserved areas free from artificial water that may act as havens for “decreaser” species, many of which are currently threatened, such as the Malleefowl, Pink Cockatoo and Chestnut Quail-Thrush.

Project Outcomes

The implementation of ‘Land Use Agreements’ to achieve biodiversity conservation in the Southern Mallee has been proceeding for approximately 3 years. The project has seen the approval for development of 37 000 hectares of degraded belah-rosewood, mallee, cypress woodland, chenopod shrubland, and grassland for the purpose of dryland cultivation. However, over 94 000 hectares of Western Lands Lease has been contributed by landholders to the National Reserve Scheme. The reserves are managed to reduce total grazing pressure through the exclusion of stock, closure of watering points and pest management control. Management plans have been devised for each reserve, outlining the various actions necessary to achieve a reduction in total grazing pressure. A monitoring program has also been implemented in order to assess the performance of these actions.

The project was runner-up (50 nominations) in the community achievement category for the June 2002 Banksia Environmental Awards. This recognition highlights the important steps that the project has taken toward achieving a balance between development, biodiversity conservation, cultural heritage and sustainability issues, which by nature is a very complex process. It is hoped that the reduction in

total grazing pressure and continued management of the reserves will see the regeneration and recolonisation of a multitude of flora and fauna species highly sensitive to excessive grazing pressure.

REFERENCES

Freudenberger, D., Noble, J., and Morton, S., (1997). A Comprehensive, Adequate and Representative Reserve System for the Southern Mallee of NSW: Principles and Benchmarks, A consultancy report prepared for the NSW Department of Land and Water Conservation and Southern Mallee Regional Planning Committee. CSIRO Division of Wildlife and Ecology.

Landsberg, J., James, C.D., Morton, S.R., Hobbs, T.J., Stol, J., Drew, A. and Tongway, H. (1997). The effects of artificial sources of water on rangeland biodiversity. Final report to the Biodiversity Convention and Strategy Section of the Biodiversity Group, Environment Australia. Environment Australia and CSIRO, Canberra.