

QUEENSLAND MURRAY DARLING COMMITTEE INC

Development of a comprehensive and powerful Regional NRM Plan.

Queensland:

Region: Murray Darling

Affiliated Regional NRM Group:

Regional NRM Plan covers the Queensland Murray Darling Basin and the Bulloo Catchment. It represents the collective work of the Queensland Murray Darling Committee, the South West Natural Resource Management Group, and the Maranoa-Balonne, Border Rivers, and Bulloo Catchment Management Associations.

Background

The charter of the Queensland Murray Darling Committee Inc (QMDC) is to co-ordinate the strategic direction of natural resource management in the Queensland portion of the Murray-Darling Basin.

The QMDC is not a statutory body but it is recognised by the Queensland Government as one of 13 Endorsed Regional Plan Groups under its Integrated Catchment Management policy. It is also recognised as a regional body under the National Action Plan for Salinity and Water Quality (NAPSWQ).

Membership of the Committee comprises representative from the four catchment management associations within the region, two local government associations plus environment, indigenous and industry groups. The Committee has strong working relationships with the Queensland Department of Natural Resources and Mines, Environmental Protection Agency, Primary Industries, and the Local Government and Planning Association.

The QMDC, with the support of the catchment management associations, has taken the lead role in the co-ordination and development of the natural resource management plan. This process has involved consultation with catchment and landcare groups, industry, local government, state government agencies and interested individuals. It is important to note that the draft plan builds on *the Queensland Murray Darling Basin "The Natural Resource Management Plan" 1998*.

The QMDC and the South West NRM Group, a neighbouring regional body, are currently developing a Memorandum of Understanding to outline how the groups will continue to work together to implement the joint Regional NRM Plan.



Achievements to Date:

This draft NRM Plan establishes a framework to guide action that will have positive impacts on the condition and trend of natural resources on a regional scale. Biodiversity, represented as nature conservation and vegetation management, is clearly identified as a key regional issue.

The NRM Plan also contains an explicit statement of values that reflects environment, social and economic aspirations. An example: "to protect or improve the integrity of ecological processes and ecosystems." It also clearly identifies with a landscape perspective and begins to paint a picture of how the community perceives a sustainable regional landscape through a series of aspirational goals. Biodiversity is strongly reflected in these statements of a future landscape.

The Plan deals with regionally significant natural resource issues and processes, while supporting the planning processes and local actions of catchment and sub-catchment groups. It also recognises the region as part of a larger ecosystem where activities in one area have flow-on impacts into others.

Information Used:

The strategies, actions and targets outlined in the NRM Plan will contribute to meeting obligations outlined in a number of international, national and state based plans, strategies and treaties. Those relating to biodiversity include:

- ❖ RAMSAR Wetland Convention;
- ❖ National Strategy for the Conservation of Australia's Biological Diversity;
- ❖ National Weeds Plan, and the Queensland Weeds Plan 2002-2006;
- ❖ National Feral Animal Plan, and the Queensland Pest Animal Plan 2002-2006;
- ❖ National Plan for Ecologically Sustainable Development;
- ❖ The Murray Darling Basin NRM Plan; and
- ❖ Queensland Integrated Catchment Management Plan.

The goals, objectives and principles of the National Plan for Ecologically Sustainable Development are specifically recognised as providing a framework for sustainable resource management in the region.

The biodiversity information presented in the NRM Plan suggests that there is good knowledge of both the biodiversity assets and the threats to those assets. The QMDC has accessed a substantial amount of biodiversity data for the planning process. The primary source of the data has been the Queensland Government.

National data:

- ❖ IBRA
- ❖ Commonwealth EPBC Act 1999 – Threatened Species
- ❖ Recovery plans are being drawn up for 16 endangered and vulnerable species found in the Queensland Murray-Darling Basin (QMDC). These could be incorporated into the plan.
- ❖ International treaty lists of wetlands of global importance as waterfowl habitat – RAMSAR sites (only one in the region).
- ❖ Birds Australia – Birds on Farms survey, information gathered from sites within the region.

State data:

- ❖ Threatened Species under the Queensland Nature Conservation Act 1992.
- ❖ The Department of Environment has identified over 170 regional ecosystem types within the QMDC. The regional ecosystems are based on vegetation communities associated with geology, landform and soil type.
- ❖ *An Overview of Threatened Fauna for the Queensland Murray-Darling Basin (Lundie-Jenkins 2000)* – an assessment of threatened species by bioregion.
- ❖ Queensland Parks and Wildlife Service (QPWS) Habitat Case Studies, a 1997 NHT project that developed case studies focussed on the retention of nature conservation values under different (economically viable) land use regimes. Three of the case studies linked production gains with nature conservation activities.
- ❖ The QMDC has negotiated access to over 70 State GIS data sets to assist the planning and prioritisation process (not all related to biodiversity).
- ❖ Various State legislation.

Regional information:

- ❖ In 1998, all wetlands greater than one hectare throughout the Queensland Murray Darling Basin were mapped. Data pertaining to land tenure, land use, threats, hydrological regime, substrate, vegetation, geomorphology, water birds, water quality, noxious and feral species, vegetation disturbance, hydrological modification and infrastructure development was collected for each site. Condition was determined for each of these. (NHT project: *Ecological Inventory and Management Planning for Floodplain Wetlands in the QMDC*).

Biodiversity planning support in the QMDC and Bulloo catchments:

- ❖ The Comprehensive Adequate Representative (CAR) system is identified as a principle for action.
- ❖ Biodiversity Assessment and Mapping Methodology (BAMM) – an EPA methodology developed as a consistent approach for assessing biodiversity values at the landscape scale. BAMM incorporates CAR principles and can identify areas with varying levels of biodiversity significance.
- ❖ BAMM provides the basis for Biodiversity Planning Assessments (BPA) for each bioregion. BPAs are a biodiversity value map and database maintained by the EPA to support decision-making in bioregions.
- ❖ The plan, in its current version, has identified strategies, targets and actions that reflect the priorities identified through the trend analysis reports completed for the region. An example of a catchment health target is:
 - 50% of presently endangered remnant regional ecosystems change status to 'of concern' or 'not of concern' through regeneration of non-remnant areas by 2010.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Mechanisms that have been used successfully in the region to date:

- ❖ Devolved grants programs to increase on-farm conservation, eg:
 - Greening Australia (using NHT funding): negotiated 300 voluntary agreements covering 60,000ha in the Condamine, Maranoa-Balonne and Border Rivers catchments.

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- Cross-compliance: Greening Australia provided support for on-ground works linked to management agreements.
- MDB 2001 Fish Habitats program – rehabilitation of riverine vegetation – 19 sites.
- Riverreach program – funded a further 25 community-based riverine rehabilitation projects.
- 16 projects protecting 29,000ha through *the Balancing Production with Nature Conservation* project.
- Facilitators and co-ordinators.

Mechanisms identified in the draft NRM Plan:

Regulatory:

- ❖ State legislative framework helping to guide goal setting.
- ❖ Recently introduced clearing ban in Queensland.
- ❖ Regional Vegetation Management Plans which are legislative plans under the Vegetation Management Act 1999.
- ❖ Government agencies are aligning regional agency programs, work plans and budgets with the key issues and strategies identified in the NRM Plan.

Economic Instruments (financial mechanisms):

- ❖ Subsidies: devolved grants and incentives for on-ground works for rehabilitation and restoration.
- ❖ Targeted incentive program (financial, empowerment, affirmation of good work), for land managers in high nature conservation sub-catchments.
- ❖ Targeted acquisition program based on BAP and Regional Vegetation Management Plans (to establish a CAR system).
- ❖ Development of sustainable forest management agreements between the timber industry and land managers (managed through the sub-catchment planning process).

Community Measures (motivational mechanisms):

- ❖ Education and awareness-raising program aimed at gaining an improved understanding of the value of native vegetation.
- ❖ Facilitation capacity to support the sub-catchment planning process.
- ❖ Research and data collection on the distribution and condition of regional flora and fauna communities, and market and non-market goods and ecosystem services provided by biodiversity.
- ❖ Improved data access, quality and monitoring for vegetation management
- ❖ Voluntary nature conservation agreements as part of sub-catchment planning and in high priority areas, as identified in the BPA.
- ❖ The region supports the concept of self-determining communities and the development of regionally and industry relevant guidelines, such as industry codes of practice.
- ❖ Primary implementation of the NRM Plan will be at the local and sub-catchment levels through locally integrated projects identified through the action planning process.

- ❖ Establishing a regional support network comprising of three regional hubs that will 'house' small multi-skilled teams with the skills and technical (hardware & software) capacity to support sub-catchment and property planning processes. There will be 25 community support positions in the region comprising of nature conservation, water quality, salinity and land management skills.
- ❖ Regional Information Systems co-ordinator will be based at the QMDC. These regional hubs will collect consistent information that will feed back into the QMDC to help build the regional picture of activity.
- ❖ Involvement of non-government organisations working with community on nature conservation issues.

Importantly, the draft NRM Plan clearly identifies the challenges, other than the biophysical, to achieving sustainability (incorporating nature conservation) outcomes across the region. The Plan identifies strategies to address structural and communication issues along with the social and biophysical challenges presented by integrated natural resource management.

Critical Success Factors:

- ❖ Access to good quality biodiversity information that is regionally relevant.
- ❖ A history of on-ground nature conservation activities that engages the local communities.
- ❖ Collaborative partnership approach demonstrated by the catchment organisations.
- ❖ Co-ordinated approach, by State Government, to developing some biodiversity data sets, such as the regional ecosystems data.
- ❖ Tools developed by the State Government to guide biodiversity investment which give a good scientific basis to guide decisions that can be built on as more information is collected.
- ❖ Government commitment to Integrated Catchment Management in the early 1990's, laying the foundation for a regional approach to natural resource management.

Further Information:

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Quote:

"Integrated, local action plans are the most effective way of implementing change, because the people that develop them are those who are most often affected by the outcome, encouraging a sense of responsibility for the process."

BLACKWOOD BIODIVERSITY PROGRAM

A strategic and rigorous approach to establishing priorities and allocating funding for biodiversity

Western Australia:

Region: South West Region

Affiliated Regional NRM Group: Blackwood Basin Group

Background

The aim of the *Blackwood Biodiversity Program* is to

- protect and enhance as many bush areas as possible within the Blackwood catchment that are of high biodiversity value;
- work in conjunction with existing Government, natural resource professionals and community networks to identify both individual sites of high biodiversity value, as well as piloting landscape level biodiversity conservation;
- educate landholders on the benefits of incorporating biodiversity into their current land management system.



The core of the program is the strategic targeting of funds available by prioritising bush areas identified as potentially being of high biodiversity value. A model was developed by the WA Department of Agriculture to rank the (approx) 24,000 patches of bush over one hectare, existing within the Blackwood catchment.

Computer based modeling was used for selecting priorities, based on multiplying the criteria of:

- remnant area (hectares);
- area to boundary ratio (edge effect);
- proportion of original vegetation remaining in the CALM estate (inverse score);
- proportion of remnant vegetation potentially exposed to salinity (inverse score);
- distance to a nature reserve or National Park (inverse score);
- number of remnants potentially forming links.

Priority sites were 'ground-truthed' using local knowledge and networks to identify any sites not containing high biodiversity values or not privately owned.

Using the methodology and learning from the initial program, the Blackwood Basin Group were asked to take on a larger landscape scale project, the *Tarin Rock Target Landscape Project*.

The *Tarin Rock* project, with the WA Department of Conservation and Land Management as the lead agency and the Blackwood Basin Group as a partner, is a 10,000 hectare landscape selected as a critically important exemplar for the expansion of this approach.

It is one of only four landscapes east of Boyup Brook that meet the criteria of :

- intactness, expressed by more than 20% of native vegetation remaining in the landscape;
- connectivity, expressed by area to boundary measurements;
- presence of vegetation types as mapped by Beard (1979); and
- level of salinity risk.

Achievements of the Blackwood Biodiversity Program to Date:

- ❖ Initial survey completed.
- ❖ Rankings completed.
- ❖ Community consultation completed.
- ❖ More than 6,000 hectares of high value bush protected, through fencing of remnants and revegetation for buffering or connecting purposes.
- ❖ Advice to landholders on vegetation protection and revegetation techniques.
- ❖ Advice to landholders on protection of fauna such as the rare and endangered Red Tailed Phascogale.
- ❖ Covenanted of more than 30% of the priority sites.
- ❖ Anecdotal monitoring of birds and recognition of the need to involve Birds Australia and build in continuing work on gathering fauna data.

Information Used:

National data sets:

- ❖ National rare and threatened species data;
- ❖ Beard (1979) vegetation mapping data.

State data sets:

- ❖ State rare and threatened species data;
- ❖ WA Department of Agriculture ranking model;
- ❖ CALM, National Trust (WA) and WA Department of Agriculture databases for covenants;
- ❖ Land for Wildlife databases for site assessments to determine biodiversity values and whether projects fit biodiversity program funding criteria.

Regional data sets:

- ❖ Bushcare Support (Wheatbelt) for direct seeding demonstrations and actual project revegetation works;
- ❖ Local knowledge of bush sites from zone managers, other locally based landcare professionals and community members.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved Grants:
 - Run for three years as the major mechanism for distributing funding;
 - Engages community members on an individual and small group basis;
 - Facilitates contact and provides advice through the assessment and implementation process.

Community measures (motivational mechanisms):

- ❖ Covenants:
 - promoting covenanting as a conscious decision for landholders who received devolved grants;
 - highlighting the benefits and allowing individuals a choice of three options for covenanting:
 - Soil and Land Conservation Commissioner,
 - National Trust (WA),
 - WA Department of Conservation and Land Management.
- ❖ Access to external information:
 - the computer modeling is based on scientific data from a range of sources;
 - expert panels are used to assess applications or and provide guidance to program processes;
 - a broader based Reference Committee is approached when wider ratification is required.
- ❖ Local facilitators and champions:
 - Blackwood Basin Group provides the local champions;
 - local facilitators from the agencies support the process;
 - community members take the lead.
- ❖ Education and extension:
 - strong program of awareness and advice;
 - reflected in 50% intention to covenant and 30% actual covenanting.

Critical Success Factors:

- ❖ Strategic in focus:
 - for selecting priorities for conservation;
 - for guiding funding decisions.
- ❖ Rigorous in nature:
 - solid scientific basis to selecting priorities:
 - leads to more appropriate priorities in the initial program,
 - enables the approach to be repeatable in other situations,

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- sound process used for funding decisions:
 - the Biodiversity Review Panel decides whether project applications for funds address the criteria of the program. The Panel brings a broad range of technical knowledge to the program, allowing the funding processes to be constantly reviewed and improved where appropriate,
 - questions raised at the panel meeting that need wider ratification are referred to the Biodiversity Program Reference Committee, which contains a range of community, landcare professional and agency staff as well as the members of the review panel,
 - the Reference Committee makes recommendations to the panel on topics affecting funding eg whether funds should be given for corridor connections, community-nominated sites out of the priority sites being currently targeted, and parameters for funding sites of 'high regional significance'.
- ❖ Balanced approach, combining:
 - a top-down scientific ranking, with;
 - bottom-up community nomination of important areas of vegetation.
- ❖ Flexibility:
 - adaptive process that incorporated lessons learned including:
 - ground truthing is vital,
 - editing of some datasets is essential,
 - need to distinguish between plantations and native vegetation, in all cases,
 - use of different model runs for:
 - a highly fragmented part of the region, or
 - a reasonably intact regional area.
 - flexible model that allows a combination of different approaches:
 - assessment of every remnant within a region, or
 - focusing on a selected landscape level.
- ❖ Flow- on effect:
 - initial project lead to a larger landscape scale application;
 - information from the program requested by the Bush Broker program in several instances;
 - requests for information from the program, made by local government to provide objective input to the areas of bush under threat from clearing or other processes.
- ❖ Landscape level:
 - processes and criteria are based on a landscape approach;
 - application is occurring at a landscape level.
- ❖ Regional priorities:
 - takes a regional approach by considering all remnants within an identified area;
 - can be shaped to reflect regional priorities within the process.

Further Reading:

- Shedley, E.F. & Heydenrych, B.J. (2002)
The Blackwood Biodiversity Program: A critical review. Unpublished Report, Blackwood Basin Group, Boyup Brook, Western Australia.
- Shepherd, D.P. (1996)
Identification of privately-owned remnant vegetation of high nature conservation value using Geographic Information System (GIS)-based model. Unpublished Report to the Department of Conservation and Land Management, West Australia.
- Shepherd, D.P. (1999)
Modeling the conservation values of remnant vegetation in the Blackwood Basin. Interim report to the Blackwood Basin Group. Unpublished Report, Spatial Resources Information Group, Department of Agriculture, Perth.

Contact for Further Information:

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Quote:

"This is a ground breaking program that gives us a flexible model that can be used across the region or for particularly important landscape areas."

Barry Heydenrych
Co-ordinator, Blackwood Biodiversity Program

HUON HEALTHY RIVERS PROJECT

The courage to lead on biodiversity at the local level

Tasmania:

Region: Southern Tasmania

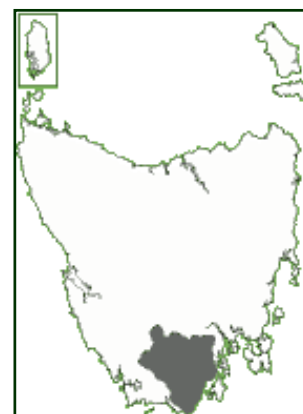
Affiliated Regional NRM Group: Southern Tasmanian regional NRM group
(currently being established)

Background

The Huon Healthy Rivers Project is an integrated natural resource management project operating at a municipal level. Council boundaries match catchment boundaries leading to greater effectiveness in addressing issues such as water quality, vegetation management, waterway and coastal degradation and community awareness and involvement.

The project has addressed these issues in an integrated manner, with a comprehensive array of actions ranging from strategic to local planning activities, specific on-ground actions and working in with local communities and industries. This has resulted in completed works and the increased capacity of local groups.

The *Healthy Rivers Project* has been running now for nine years and it is intended to continue indefinitely to build on the work done.



Achievements to Date:

- ❖ The project was based on a need to improve water quality in local waterways. The last year has seen a continued consolidation of the Waterwatch program with support provided to a dozen very active local groups.
- ❖ Significant water quality monitoring work has been completed.
- ❖ A water quality database has been maintained and a report produced that assesses all water quality data collected up to the end of 2002 (6 years worth of data from many sources and across all catchments).
- ❖ The completion of a vegetation and biodiversity strategy for the municipal area.
- ❖ Operation of a devolved grant program to protect priority vegetation communities.
- ❖ Provision of support to local Landcare groups undertaking revegetation and rehabilitation projects, through training, field days and workshops to better educate local land owners.
- ❖ Providing specific attention to weed control.

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- ❖ Addressing waterway and coastal degradation, with support provided to the local Landcare and Coastcare groups.
- ❖ Two Green Corps projects completed on the rehabilitation of local waterways and some coastal locations.
- ❖ Rivercare plans completed for a number of waterways and some implemented on the ground (eg Agnes Rivulet).

Information Used:

National data sets:

- ❖ Aware of and take proper cognisance of Commonwealth priorities, issues and information data sets.

State data sets:

- ❖ State Government staff (eg: Threatened Species Unit) plus all available technical information (which is summarised in a comprehensive "state of the environment" section in the draft Huon Valley NRM strategy).

Regional data sets:

- ❖ Local information is collected and accessed to encourage integration of approaches on specific sites.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic Instruments (financial mechanisms):

- ❖ Devolved grants scheme:
 - Healthy Rivers staff co-ordinated the 'Huon Valley Protection of Priority Vegetation Project', which was funded through the Natural Heritage Trust as a devolved grants project;
 - it provided funding in a 'one stop shop' manner to landowners and Landcare groups in the Huon Valley to protect and rehabilitate priority areas;
 - the type of work which has been funded includes fencing of riparian areas and remnant bush, installation of off-stream watering sites such as troughs, some weed control, revegetation and the preparation of Rivercare plans or Whole Farm Management plans;
 - allows groups autonomy and enables them to get on with action;
 - provides a rapid response that maintains local enthusiasm.
- ❖ Municipal funding:
 - Council uses funding from the Federal Assistance Grants Scheme to allocate up to \$30,000 per year for a separate conservation grant program overseen by the Council's Landcare Advisory Committee;
 - ratepayer funds are used to meet the employment costs of Healthy Rivers staff.

Community measures (motivational mechanisms):

- ❖ Icon species:
 - use of the platypus as an icon species to increase awareness;
 - an extensive survey carried out throughout the community to register all sightings of platypus;
 - a different way to engage the community;
 - the intention is to come back to this in several years time to assess the impact of improved river management.
- ❖ Community education:
 - raising community awareness about the benefits of better natural resource management, which involves improving the capacity of local groups working in the area;
 - working closely with those within the community who are interested in improving the quality of their local environment;
 - providing training opportunities to facilitate safe on-ground conservation works;
 - broader community awareness has been raised through the use of the media, newsletters, displays, workshops, local Shows, a Healthy Rivers web site and a very active local school program;
 - the project provides a “resource” room or library that is used for technical information by the local community.
- ❖ Local facilitators:
 - employment of two local facilitators on a part-time basis, with one focused on the implementation of the natural resource management strategy and the other co-ordinating 30 groups in the Valley.

Critical Success Factors:

- ❖ Proactive focus on planning:
 - a Catchment Management Plan was completed in 1997 and has since been implemented;
 - a draft Huon Valley Natural Resource Management Strategy has been recently completed;
 - from a biodiversity perspective, the main outcome has been the Vegetation and Biodiversity Strategy which contains a wide range of biodiversity related strategies and prioritised actions within the Natural Resource Management Strategy;
 - preparation of the Natural Resource Management Strategy ensures that the region is well-placed to have its issues included in future natural resource management strategies developed for the Southern Region, as part of the new State NRM Framework.



- ❖ Landscape approach:
 - the Biodiversity Strategy is prefaced on a total landscape approach and is set into the context of the wider NRM Strategy;
 - Council works hard to avoid compartmentalising in a geographic or issues sense;
 - the constant battle is to remain integrated and inter-related.

- ❖ Willingness of local government to lead:
 - local Council drives the process to enable the community to have a voice at the local level;
 - local Council commitment is essential to action happening on-ground;
 - local government recognises that a strong local network of facilitators and motivated community members is needed and that this is a local government role, rather than a State Government role.

- ❖ Constant, on-going presence:
 - on-going involvement rather than project based involvement;
 - awareness that a decrease in support would lead to a decrease in biodiversity activities;
 - recognition that the Commonwealth funds projects to see outcomes, but real outcomes being achieved are never short term and long term commitment is necessary;
 - Local Councils are better placed than most organisations to provide this long term commitment to local communities.

- ❖ Development of partnerships:
 - combination of the Green Corps teams and the Huon Valley Protection of Priority Vegetation devolved grants has enabled a great deal of work to occur on-ground, within the Huon Valley;
 - networks with local groups;
 - relationships built with industry;
 - co-operation with specific experts in State agencies for information and support.

Further Reading:

- Huon Valley NRM Strategy.

Contact for Further Information:

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Quote:

“At the outset, we thought we could run for a couple of years, groups would become autonomous and we could step back.

Now we know that no matter how much support you give initially, you must maintain the support indefinitely. You must be hard at it all the time.”

Tony Ferrier

LIVING LANDSCAPES

People working together to protect native plants and animals in healthy, productive landscapes

Western Australia

Region: Avon River Basin

Affiliated Regional NRM Group: Avon Catchment Council

Background

Living Landscapes is about working with land managers to integrate nature conservation into the agricultural landscape, with the primary aim of protecting the remaining (native) biodiversity within economically viable and sustainable landuse systems.

Living Landscapes links science and community through a simple framework for learning, planning, doing and reviewing. It provides opportunities for land managers to learn about their local ecology, through their own experience and through the eyes of others, and then to apply 'new' knowledge at the local level whilst contributing to landscape-scale outcomes.



The project uses a 'plan-do-review' project management cycle, well used in production-focused catchment planning processes, which incorporates nature conservation using experiential learning activities and tools based on scientific research data. The emphasis on experiential learning promotes the value of experience in the learning process.

Linking Science and Community

The project recognises and links local experience and knowledge with science-based data and research techniques. The project is designed to achieve a greater understanding and ownership by land managers of research results, resulting in more informed management decisions. The rationale for adopting this approach is a belief that individuals need to have the capacity to understand the basic ecological functions of the local landscape if they are to develop and implement actions that address issues of concern such as biodiversity decline.

Drawing on locally based scientific research, in this case the data and recommendations from the *focal species methodology*, a number of awareness raising activities and tools have been developed that aim to help farmers to:

- identify biodiversity assets within their catchment;
- identify the threats to those assets; and
- incorporate actions to manage the threats into their farm and catchment plans.

In addition to achieving significant biodiversity benefits, the project aims to leave a legacy of skills and knowledge within the community, as well as contribute to a visual legacy of landscape change.

Achievements to Date:

- ❖ Working partnerships with five catchment groups that influence over 100,000ha of private land.
- ❖ Five groups of farmers and their families with a raised awareness and understanding of biodiversity values and assets within the local landscape and committed, to varying degrees, to conservation-based activities.
- ❖ Catchment-scale conservation plans, developed by each catchment group, that identify integrated conservation activities to be undertaken over a five year period. The plans reflect the direction of the conservation priorities identified through the scientific research.
- ❖ 1,306ha of remnant vegetation protected and enhanced and 312ha of cleared agricultural land revegetated with native species.
- ❖ Development of a range of awareness-raising activities and tools, some of which also provide ways to guide investment decisions.

Information Used:

National data sets:

- ❖ National rare and threatened species data

State data sets:

- ❖ Land Monitor
- ❖ Rare and Threatened Ecological Communities data available from the WA Department of Conservation of Land Management
- ❖ Beard (1999) vegetation maps

Regional and local scale data sets drawn on or created as a result of the project:

- ❖ Bird survey data collected by CSIRO Sustainable Ecosystems over a 10 year period throughout the wheatbelt, including data collected specifically for Living Landscapes
 - locally collected information has been made available to national initiatives such as the Birds Australia Bird Atlas project
- ❖ Vegetation association data for the majority of remnants in each participating catchment
- ❖ Some detailed botanical data and seed resource data collected through the course of the project
- ❖ Small vertebrate data is currently being collected from selected remnants in each catchment.
- ❖ All of this data is available to the Avon Catchment Council, contributing to the regional biodiversity database.

Market and Non-Market Mechanisms for Biodiversity Conservation

Economic instruments (financial mechanisms):

- ❖ Subsidies: cost sharing arrangements linked with an environmental works program. \$2:\$1 for nature conservation activities; \$1:\$1 for land conservation activities. This is delivered as a devolved grants project, managed by each of the catchment groups.

Community measures (motivational mechanisms):

- ❖ Extension program focussed on establishing and improving biodiversity management skills.
- ❖ Education and awareness-raising program aimed at linking research and community experience to enhance collective knowledge about the local landscape.
- ❖ Facilitation capacity to support the planning process.
- ❖ Limited use of voluntary covenanting agreements to date (sometimes this is linked to financial incentives eg. partial fencing cost covered).
- ❖ Working with groups of land managers (operating as incorporated catchment groups), to support group development as they evolve, to take on broader interests or expand membership.

Critical Success Factors

- ❖ Partnerships:
 - biodiversity conservation as a new focus for the groups generated interest and curiosity;
 - credibility of project partners such as CSIRO Sustainable Ecosystems, Alcoa and Greening Australia (WA) has established credibility as the project has progressed;
 - capacity to invest time in building a relationship with each of the groups has been critical to gaining trust and reducing the perceived risk of investment in biodiversity activities.
- ❖ Tools, activities and resource materials:
 - investment in awareness raising activities, which:
 - provide local land managers with opportunities to “see” and learn about the local landscape through the eyes of others, such as visiting research scientists, university students, and others with biodiversity expertise. It also provides an avenue for local expertise to be shared and exchanged in low-key ways,
 - enables families to participate in the project together;
 - a focus on fun while learning means that this is as much a social project as a science-based conservation project;
 - investment in tools such as local bird books and the bird distribution maps, pictured below. The maps represent scientific data in a locally relevant format, which can engage people in discussions about the presence and absence of birds and links to factors such as remnant shape and health, vegetation patchiness and isolation. The key is the relevance of the information to the land manager as the decision-maker.



- ❖ Facilitation and Leadership:
 - facilitation and co-ordination support;
 - strong leadership within each of the catchment groups;
 - capacity to invest in supporting group development and process.
- ❖ Planning Process:
 - the planning process is built on existing and proven catchment planning processes, reducing any uncertainty associated with the project. Also important for minimising any perception of duplication of previous activity;
 - a participatory approach guides the planning process resulting in greater ownership and understanding of the plans, ie: the plans are not done for the groups and presented to them as 'their' conservation plans. Planning is often undertaken in small neighbourhood groups enabling opportunities for cross-boundary projects to be identified. The neighbourhood plans are combined into a catchment plan and reviewed and accepted as a whole of catchment plan by the group;
 - planning is based on technically robust information;
 - a five year timescale does not reflect a belief that biodiversity will be secured in this period, rather it reflects the iterative nature of the planning and learning process, and provides a capacity to incorporate new learning as the project evolves.
- ❖ Implementation:
 - access to technical expertise for assistance with on-ground project design and implementation;
 - investment in on-ground activities is determined by agreed rules and priorities; each group manages the funding allocation process;
 - flexible funding arrangements that enable the groups to support activities that have production and conservation benefits;
 - partnership approaches that create an atmosphere of learning together.

Further Reading:

- Lambeck, R.J. (1999). *Landscape Planning for Biodiversity Conservation in Agricultural Regions*. Canberra: Environment Australia.
- Dilworth, R; Gowdie; T & Rowley E.E. (2000). *Living Landscapes: the future of the Western Australian wheatbelt?* Ecological Management & Restoration. 1(3): 165-174.

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Quote:

"The diversity within our remnants really surprised me. We didn't have that understanding before and we didn't attach the value to it that we attach now".

Ivan Rogers
member of the South Tammin Sub-catchment group and a partner in Living Landscapes

FIELD FRESH TASMANIA

Market access as a driver of biodiversity conservation at an industry scale – a possibility!

Tasmania:

Region: North West Tasmania

Affiliated Regional NRM Group: Cradle Coast Catchment Authority

Background

United Kingdom (UK) and European supermarkets are requiring increased environmental management reporting from local suppliers as a condition of purchase of fresh products. It is inevitable that the same requirements will apply to international suppliers if they want to retain access to the UK and European markets. The experience of Field Fresh Tasmania provides an insight into how these environmental management requirements could influence an industry to consider biodiversity conservation as a part of business practice.

Field Fresh, TESCO and Tasmanian Onions

The onion industry is the most valuable agricultural crop in the Tasmanian economy. Tasmania accounts for 80% of Australia's onion exports even though it only produces one third of the country's total onion crop. Field Fresh Tasmania Pty Ltd (Field Fresh) is Tasmania's largest onion packer and exporter. Onions are supplied under contract to Field Fresh and the company packs and markets over 70% of Tasmania's onion crop. Field Fresh supplies onions to TESCO (the UK's largest supermarket chain), a contract that represents about 10% of its business.



TESCO developed a food labeling scheme called Nature's Choice (essentially a code of practice) and adopted a policy that they would only accept produce accredited with the Nature's Choice label. Through this scheme, accredited growers are audited against seven criteria, one of which is that growers have to demonstrate that they are maintaining and enhancing the nature conservation and landscape values of their properties. Nature's Choice is underpinned by a 'green' philosophy of stewardship and is essentially aiming to combine production efficiency and conservation values through the Code of Practice.

To achieve accreditation under Nature's Choice, a policy statement (effectively an action plan) needs to be developed for each of the seven elements. Grower adoption of the Code of Practice must be demonstrated beyond a six-month period before Nature's Choice certificates are issued.

TESCO's policy affected Field Fresh in 1998 when it advised Field Fresh that it would only source produce from growers accredited through Nature's Choice. TESCO accredits growers via the supplier who is then responsible for ensuring that individual growers meet the Nature's Choice requirements.

How does a vertically integrated supplier demonstrate compliance?

Recognising an opportunity to differentiate themselves in an increasingly competitive market place, Field Fresh:

- ❖ commenced an awareness-raising campaign amongst its contract growers about the new requirements;
- ❖ completed a study tour of TESCO's UK based onion suppliers, as a member of a Tasmanian group that included Department of Primary Industries, Water and Environment, Agronico and the Tasmanian Farmers and Graziers Association;
- ❖ worked with the study group to develop a series of training modules based on the accreditation scheme, for delivery to the contract growers;
- ❖ sponsored a team of Tasmanian based auditors on a study trip of the UK;
- ❖ approached Bushcare to design and implement an assessment process for the Wildlife and Landscape Conservation and Enhancement component of the scheme. In Tasmania, Bushcare is also responsible for the delivery of the Land for Wildlife Scheme, and it was thought that the scheme met one aspect of the quality assurance (QA) – membership representing a positive attitude to conservation.

Assessing compliance with Wildlife and Landscape Conservation and Enhancement

The assessment pathway for this component of Nature's Choice is detailed in Figure 1.

1. QA facilitator undertakes an initial assessment of the property to gather information about the presence and/or absence of special native fauna and flora including wetlands and grasslands. The initial assessments need to be verified by people with biodiversity expertise such as Bushcare/Land for Wildlife officers.
2. Bushcare officers undertake a digital data search for mapped species, plant communities and cultural data.
3. If conservation values exist on a property, above a threshold level, the land manager is offered the opportunity to participate in Land for Wildlife. If the property does not qualify for Land for Wildlife, recommendations to enhance nature conservation values are drafted. At this stage the threshold level is quite low.
4. A conservation plan for the property is drafted and includes recommendations for the management of conservation values.
5. The conservation plans are provided to the land manager and agreed recommendations are incorporated into property plans and potential funding sources are identified.
6. A Game Management Plan is required where wildlife management is an issue.
7. An independent quality assurer assesses for accreditation for Nature's Choice – two audits are required before a grower becomes fully accredited through Nature's Choice.

Growers are required to submit to a regular audit to ensure compliance. Some components of the scheme will require an annual audit and others, such as the nature conservation component, will be audited less frequently, probably biannually. The conservation audit assesses grower's compliance with their agreed conservation plans.

Achievements to Date:

- ❖ 80 growers participated in the program with 65 receiving a Certificate for Responsible Agriculture. This certificate was accredited to Nature's Choice standards. Growers did not receive the Nature's Choice certificate after one year as was the initial understanding. However, some growers have found the Responsible Agriculture Certificate to be useful in highlighting credentials to other companies.
- ❖ Bushcare officers identified populations of rare and endangered species of flora and fauna on a number of properties.
- ❖ A bonus was the location of the participating properties; their proximity resulted in a landscape approach to conservation through the Nature's Choice accreditation scheme.
- ❖ Commitment to on-going nature conservation activities.
- ❖ Increased awareness of broader environmental issues such as nature conservation.
- ❖ Participation resulted in access to the Melbourne market for some growers.
- ❖ Reduced insurance costs for some growers.

Information Used:

National data

- ❖ Landsat™ 1995 data
- ❖ IBRA

State data

- ❖ Parks and Wildlife GT Spot GIS database
- ❖ TASVEG 2000

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic Instruments (financial mechanisms)

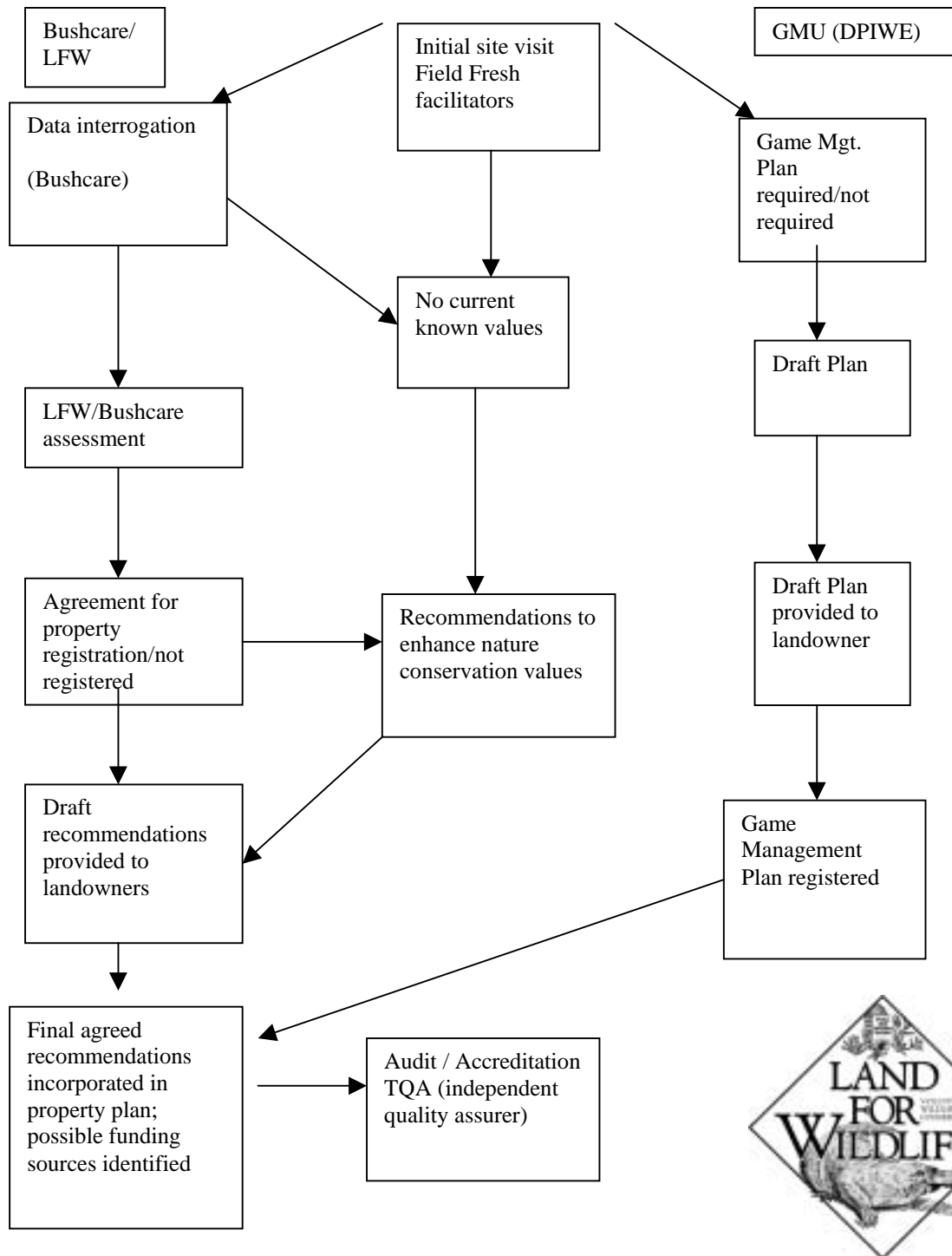
- ❖ Once-off price premium paid to growers as an incentive for adoption, with \$5 per tonne premium offered to growers in the first year after accreditation.
- ❖ Compliance will enhance opportunities for market access.
- ❖ Costs of implementation were shared between Field Fresh; the contract growers; Supermarket to Asia Ltd; Department of Primary Industries, Water and Environment; Department. of State Development; and the Natural Heritage Trust.

Community Measures (motivational mechanisms)

- ❖ Training program to assist growers to understand the requirements of Nature's Choice accreditation.
- ❖ Acknowledgement through recognition with a certificate – the Responsible Agriculture Certificate.
- ❖ Facilitation as a component of the assessment process.
- ❖ Land for Wildlife registration.



**NATURES CHOICE
WILDLIFE AND LANDSCAPE CONSERVATION
COMPONENT ASSESSMENT PATHWAY USED**



This assessment pathway was designed to implement the Wildlife and Landscape Conservation Component of TESCO (UK) Natures Choice Quality Assurance Scheme for Bushcare Tasmania by Sean Cadman 1999. A full description and assessment of this project - which involved 80 onion growers in Northern Tasmania is in preparation. Growers successfully participating in the scheme were promised a price premium for their onions.

Critical Success Factors:

- ❖ TESCO requirement for Field Fresh to adopt Nature's Choice Code of Practice (Market Access).
- ❖ Price premium paid in the first year, however, this is not the overall driver, it is market access/trade advantage that will drive adoption of these schemes.
- ❖ Incentives: 60-70 % of the accreditation process was funded by Field Fresh and the federal and state governments.
- ❖ Facilitation – one on one interaction with the contract growers.
- ❖ Bushcare/Land for Wildlife capacity to undertake the conservation planning and deliver a credible assessment process for the nature conservation component of the scheme.
- ❖ On-going audit requirement to maintain involvement in the scheme.

References and Further Reading:

- Bond, E, Cadman, S., Carey, N., and Hart, M. (2002). *Tasmanian experiences in implementing a QA/OEMs to supply export markets*. Conference Proceedings in preparation. (contact Sean Cadman).
- Cadman, S (2000). 'Can the market deliver nature conservation? Nature's Choice in Tasmania'. *Danthonia* 8 (4; 6-7). (Journal of the Plant Conservation Society of Australia).

Contact for further information

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SNOWY RIVER RAINFOREST AND RIPARIAN VEGETATION RESTORATION PROJECT

Smaller projects done well can have significant outcomes

Victoria:

Region: East Gippsland

Affiliated Regional NRM Group: East Gippsland Catchment Management Authority

Background

The Snowy River Project is a 40 hectare area of rainforest and riparian vegetation, in a prominent location on the Princes Highway.

The aim of the project is to successfully restore rainforest in highly degraded niches by facilitating natural regeneration, extensive planting, replacing the weed of national significance (willows) with indigenous waterline vegetation, and the conservation of a suite of rare and threatened rainforest flora and fauna.



This project arose from the success of the *Nyerimilang Greenfields Rainforest Restoration Project* and the lessons learnt there.

The Nyerimilang project is a seventeen hectare site situated on Maringa Creek at the eastern end of the Gippsland Lakes near Lakes Entrance. This partially cleared catchment contributes significant amounts of nutrient pollution to the Gippsland Lakes which leads to frequent and severe Blue-green Algae outbreaks. Each outbreak is calculated to directly cost the regional economy in the vicinity of \$20 million, with a flow on factor of 4.

The project site is strategically located at the bottom of the catchment with rainforest restoration works specifically designed to reduce floodplain water velocities in order to trap and recycle nutrients on the floodplain using Warm Temperate Rainforest and Swamp Scrub.

The project has provided habitat for and conserved the following:

- ❖ Environmental Protection and Biodiversity Conservation Act listed species:
 - the vulnerable Limestone Blue Wattle; the vulnerable Grey-headed Flying fox; the endangered Swift Parrot.
- ❖ Flora and Fauna Guarantee Act listed communities:
 - East Gippsland Coastal Warm Temperate Rainforest; Alluvial Terraces Warm Temperate Rainforest; and East Gippsland Karst Dry Rainforest.

- ❖ Flora and Fauna Guarantee Act listed plants:
 - Maiden's Wattle and Limestone Blue Wattle.
- ❖ Flora and Fauna Guarantee Act listed animals:
 - White-bellied Sea Eagle; Swift Parrot; Powerful Owl; Masked Owl; Sooty Owl; and Diamond Firetail.
- ❖ Rare or Threatened Australian Plant species:
 - Limestone Pomaderris.
- ❖ Draft East Gippsland Native Vegetation Plan Very High Conservation status:
 - Swamp Scrub, Limestone Pomaderris Shrubland (endangered);
 - Limestone Box Forest (vulnerable).
- ❖ High Conservation status (rare):
 - Warm Temperate Rainforest.
- ❖ Victorian Rare or Threatened species:
 - Star Cucumber; Yellow Milkvine; Creeping Loosestrife; Jointed Mistletoe; Bolwarra; Pinkwood; Wallaby Bush; Spicy Everlasting; Viscid Daisy-bush.
- ❖ Rainforest dependant migratory species:
 - Rufous Fantail; Cicada Bird; Topknot Pigeon; White-headed Pigeon; Black-faced Monarch.

The Snowy River Project is an icon project for the establishment of large areas of rainforest:

- it has the greatest diversity of plantings;
- natural rainforest regeneration is higher because there are no browsing issues;
- the existing remnant is extremely diverse.

The project aims to protect vegetation of highest conservation significance:

- ❖ Flora and Fauna Guarantee Act (1988) listed community:
 - Alluvial Terraces Warm Temperate Rainforest.
- ❖ Environmental Protection and Biodiversity Conservation Act Listed species:
 - the endangered Swift Parrot and Grey-headed Flying Fox
- ❖ Rare or threatened rainforest plants including the Flora and Fauna Guarantee Act listed species:
 - Maidens Wattle, Buff Hazelwood and Yellow Elderberry, the vulnerable Yellow Milkvine, Cabbage Fan-palm, Blackfellows Hemp and Black-stem Maidenhair and the rare species: Bolwarra, Trailing Guinea-flower, Branching Grass-flag, Gippsland Hemp, Eastern Bitter bush and Wallaby Bush.

The project also aims to improve river health and the visual amenity of the lower Snowy River for locals and tourists alike.

Achievements to Date:

In the Nyerimilang area:

- ❖ 11 hectares of rainforest revegetation and 6 hectares of sclerophyll revegetation have been established to augment 0.6 hectares of existing rainforest;
- ❖ recolonisation of rainforest birds into the revegetated area has been extremely rapid, with the first species returning within nine months and a good spread of species achieved within two years;
- ❖ monitoring systems have been established to record species in revegetated and remnant areas;
- ❖ nutrient trapping effects have been monitored, immediately above the RAMSAR listed Gippsland Lakes;

In the Snowy River area:

- ❖ plantation surveys of previous vegetation have been completed to establish proximity and connectivity factors;
- ❖ revegetation has been undertaken;
- ❖ certain bird species have already recolonised, including Wonga Pigeons, Satin Bower Birds and the Bassian Thrush which is rarely seen outside of high quality rainforest habitats.

Information Used:

National data sets:

- ❖ Environmental Protection and Biodiversity Conservation Act schedules

State data sets:

- ❖ Flora of Victoria
- ❖ Flora & Fauna Guarantee Act schedules (Victoria)
- ❖ Victorian Flora Species List

Regional data sets:

- ❖ Draft East Gippsland Native Vegetation Plan

Market and Non-Market Mechanisms for Biodiversity Conservation:

Community measures (motivational mechanisms):

- ❖ Focus on the Snowy River as an icon landscape.
- ❖ Local champion who works with local groups and key stakeholders.
- ❖ Stakeholder support by involving local Members of Parliament and local Councilors in all activities.
- ❖ Effective publicity by sending photos of significant events such as the iconic Satin Bower Birds nesting on the site.

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- ❖ Involvement of Koori people in works, regeneration of species and access to cultural sites.
- ❖ Awards for innovative partnerships with agencies such as the Department of Correctional Services.
- ❖ Extension resulting in 13 landholders with similar valley remnants submitting funding bids to revegetate and restore.
- ❖ Use as a teaching site to build local capacity to restore rainforest sites.
- ❖ Development of a Certificate III course in Rainforest Restoration Techniques, based on this site.
- ❖ Development of a Riparian Restoration Guide that can be used throughout the region.

Critical Success Factors:

- ❖ Excellent alignment of local, regional, state and national priorities for actions on vegetation of highest conservation significance:
 - Commonwealth requirements for protection of nationally threatened and rare species;
 - Statewide process through Remnant Vegetation Plans to identify ecosystems needing attention;
 - East Gippsland Lowlands identified as a bioregion;
 - analysis within this bioregion for areas of conservation, based on depletion status and threatening processes.(The degree of alignment is reflected in the consistency of funding achieved.)
- ❖ Operation at a landscape level:
 - revegetation of isolated rainforest remnants conducted 15 years ago are only now showing levels of recolonisation of birds comparable to the current restoration projects;
 - the difference is the connectivity in the landscape, with a strong relationship between the distance from existing seed sources and the rate of recolonisation, such that a disconnection greater than one kilometre will result in zero augmentation of rainforest seeds.
- ❖ Focus on restoration rather than revegetation:
 - recharging of the soil seed bank;
 - continuous recruitment and regeneration through the establishment of nursery crop species and successional planting to establish maturing canopies;
 - use of bird species recolonisation as an indicator of successful restoration.
- ❖ Consistency and timeliness of funding:
 - The project has invested heavily in developing community capacity;
 - the efforts all melt down if funding is not procured on time;
 - small businesses can't hold stock, key people drift away.



- ❖ Gaining the trust and understanding of funding agencies:
 - educating funders that restoration is different to revegetation:
 - restoration is focussed on creating a self managing system through successional planting,
 - revegetation is focused on a single planting of trees and shrubs that evolves into trees over grass as time passes;
 - Restoration demands a five year funding commitment.

Further Reading:

- Nyerimilang Project Report (details to come).

Contact for Further Information:

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Quote:

“Our aim is to restore the structure, walk away and leave a self replicating ecosystem”

Bill Peel

INDIGENOUS PROTECTED AREAS – ANANGU PITJANTJATJARA LANDS

Biodiversity conservation and cultural heritage preservation are inseparable for indigenous people

Central Australia:

Region: Anangu Pitjantjatjara Lands

Affiliated Regional NRM Group: Aboriginal Lands Region of South Australia

Background

Indigenous Protected Areas (IPA's) are a voluntary agreement entered into by the Traditional Owners of the land and the Commonwealth government to promote biodiversity and cultural resource conservation on indigenous owned land.

The Anangu Pitjantjatjara Lands cover 107,000 square kilometres where the boundaries of South Australia, Northern Territory and West Australia meet.

Within this area, two IPA's have been established: Walalkara (1.3 million hectares) and Watarru (0.7 million hectares).

Preparation was started in 1998, with approval gained in 2002.

The goals of the IPA program are:

- ❖ to establish partnerships between government and indigenous land managers to support the development of a comprehensive, adequate and representative national system of protected areas which is consistent with the international protected areas classification by assisting indigenous people to establish and manage protected areas on estates for which they hold title and assisting indigenous groups and Commonwealth, State and Territory agencies to develop partnerships for co-operative management of existing protected areas;
- ❖ to promote indigenous involvement in protected area management by supporting the establishment of co-operatively managed protected areas in each jurisdiction and promotion of national best practice approaches to co-operative partnerships in protected area management;
- ❖ to promote and integrate indigenous ecological and cultural knowledge into contemporary protected area management practices, in accordance with internationally endorsed protected areas guidelines.

Achievements to Date:

- ❖ Biological Surveys completed.
- ❖ Management Plans established.
- ❖ Fire Strategy developed.



- ❖ Positive impact on Mallee Fowl (National Threatened Species):
 - people, many of whom are not back on-country, understand that there is a problem and that the species is under threat;
 - people follow tracks, locate nests and report whether nests have chicks or are dead nests;
 - gradual build-up of baseline information on locations, status and type of country, using GIS resources;
 - individual nests are protected by baiting for foxes
 - foxes are tracked and killed;
 - strategic burning is used to protect habitat that may be threatened by larger fires.

- ❖ Protection of Great Desert Skink (National Threatened Species):
 - habitats are located, logged and protected;
 - after baiting for predators, increases in population are observed.

- ❖ Protection of Black Footed Rock Wallaby (Threatened Species in South Australia).



Information Used:

National data sets:

- ❖ National rare and threatened species data
- ❖ IUCN standards

State data sets:

- ❖ State rare and threatened species data
- ❖ Biological Survey of Anangu Pitjantjatjara Lands (1991 – 2001.)
- ❖ Protected Areas Management system

Regional data sets:

- ❖ Traditional Owner's Knowledge
- ❖ Threatened Species Network data
- ❖ Western Mining Company environmental data
- ❖ Protected Areas Management System

Market and Non-Market Mechanisms for Biodiversity Conservation:

Regulatory mechanisms:

- ❖ IPA agreement is a Commonwealth program that enables local areas to support national and international conservation priorities.

Community measures (motivational mechanisms):

- ❖ Local facilitator shared between the two IPA's.
- ❖ Icon species as a focus for activities and protection.
- ❖ Philanthropic funding from the Rio Tinto Aboriginal Foundation, for wages of indigenous people on specific activities related to conservation.
- ❖ Access to technical information and resources from State Government agencies and mining companies.
- ❖ Tourism:
 - Earthwatch bring people out who pay to help with the scientific work on the Southern Marsupial Mole;
 - Adelaide University and the South Australian Museum bring tours;
 - A commercial operator does some specific high-end eco-tourism tours.

Critical Success Factors:

- ❖ Cultural appropriateness
 - the IPA mechanism works because it is based on:
 - knowing the right Traditional Owners;
 - working on-country with them;
 - listening to the people, in language;
 - recording, translating and checking with the people.
 - continuity of purpose, based on land owner's aspirations rather than Project Officer aspirations;
- ❖ Legitimacy:
 - the IPA mechanism provides legitimacy to many of the activities carried out on-country, by recognising them as indigenous land management;
 - where the activities are private work, the people fund themselves;
 - where the activities are for the public good and broader national perspectives, public funding can be legitimised through the IPA process.
- ❖ Recognition of world view:
 - one of the few programs that actually recognises a different world view;
 - builds on traditional knowledge;

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- sees people on-country as an important and hugely beneficial process for biodiversity conservation;
- accepts that biodiversity conservation and cultural heritage preservation are part of one process.
- ❖ Flexibility:
 - IPA's were set up because people had a strong interest in looking after country;
 - initially the whole of the Anangu Pitjantjatjara Lands were cast as one IPA;
 - because this ran counter to cultural boundaries, the IPA was split into two areas, with each area reflecting the people who had authority to speak for country;
 - the IPA Co-ordinator divides time equally between the two areas and management plans have been developed for each area.
- ❖ Relevant scale:
 - IPA's are based on working with the people who have the right to say what can be done on-country;
 - the most relevant scale is the extended family;
 - as the system evolves, sub IPA's may be necessary within each IPA area.
- ❖ Willingness to go bush:
 - recruitment of support people with appropriate attitudes.
 - essential for support staff to spend a significant proportion of their time on-country, listening, recording and learning;
 - time on-country leads to the development of trust between the people and staff.
- ❖ Landscape level:
 - IPA's are a key mechanism to get integrated approaches across large areas;
 - decision making is based on Tjukurpa or "what is most important for country".
- ❖ Management Plans:
 - having a management plan is a funding requirement from the Commonwealth
 - this enables people to understand what needs to be done;
 - it allows staged development;
 - the plans provide structure and co-ordination to activities carried out on-country.
- ❖ Alignment of priorities:
 - IPA enables a structured and co-ordinated land management movement to mesh with regional, state and national priorities;
 - at the national level, IPA's are set on IUCN Standards;
 - at a state level, initiatives such as a fire management strategy are developed;
 - at a regional level, management plans are implemented;
 - at a local level, people carry out activities on-country, using mechanisms such as Envirofund.

- ❖ Partnerships with key stakeholders:
 - development of strong partnerships with the South Australian Department of Environment and Heritage to:
 - undertake biological surveys,
 - provide technical advice,
 - allow their GIS systems to be used for recording
 - partnerships with Western Mining Company for environmental advice and support.

Contact for Further Information:

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Quotes:

“I can’t stress enough how important IPA has been to the development of indigenous land management. Without it, we wouldn’t have a structured and co-ordinated land management movement that is able to mesh in with the regional NRM approach.”

Nic Gambold, Central Land Council

“We can keep replacing Project Officers until we get ones with the right approach. We can’t replace the landowners.”

Alex Knight, Co-ordinator, Anangu Pitjanjatjara Yankunytjatjara Land Management

THE TARGET PROJECT (NEW SOUTH WALES)

Building biodiversity into natural resource management from the outset

New South Wales:

Region: Central West Region

Affiliated Regional NRM Group: Lachlan, Macquarie; and Castlereagh Catchment Management Boards

Background

The *TARGET (Tools to Achieve landscape Redesign Giving Environmental/economic Targets) Project* is jointly funded by the Commonwealth through Murray Darling 2001 and the State Salinity Strategy to:

- ❖ achieve land use change by on-ground works, in small, medium and regional scale catchments affected by salinity;
- ❖ identify the barriers to change.



The objectives of the project are:

- ❖ on-ground implementation with development of mechanisms and processes to redesign the landscape;
- ❖ identification of social and economic impediments to land use change;
- ❖ development of a structure and process (partnerships and incentives) for targeted land management change;
- ❖ establishment and recognition of environmental/economic indicators and benchmarks;
- ❖ monitoring and evaluation of on-ground activities against targets; and
- ❖ capacity building through a structured training and awareness program.

On-ground implementation is being undertaken in five catchments in the region. The catchments can be divided into small and medium scale with Warrangong and Mid Talbragar being small scale while Little River, Weddin and Castlereagh/Dunedoo are the medium scale catchments.

All catchments have been selected on the basis of having already undertaken some catchment planning.

On-ground implementation accounts for 70% of the project budget. Implementation in the second year is based on an Environmental Services Ratio that informs:

- landscape assessment;
- cost sharing arrangements;
- grants devolution.

Achievements to Date:

- ❖ Landholder Profile Surveys:
 - the Integrated Catchment Assessment and Management (iCAM) Centre of the Australian National University is undertaking socio-economic surveys of landholders in the Warrangong, Mid Talbragar, Weddin and Little River catchments on the way that natural resource management projects are delivered and the types of incentive packages that should be utilised to overcome social and economic barriers and impediments to change.
- ❖ Farm Analysis Project:
 - iCAM is identifying suitable farm multi-period investment models to analyse the economic feasibility of current and future land use.
- ❖ Regional Integrated Management Information System (RIMIS Project):
 - iCAM is developing a regional information system that allows users to access a number of databases and to access information and run embedded bio-physical and socio-economic scenarios (ie ask 'what if' questions).
- ❖ Ecological Surveys:
 - the National Parks and Wildlife Service is carrying out ecological surveys for biodiversity in the Warrangong, Mid Talbragar, Little River and Weddin catchments to provide a benchmark of biodiversity and vegetation in the region and develop guidelines for enhancing biodiversity.
- ❖ Biophysical Planning of Catchments:
 - being undertaken in each of the catchments to ensure that there is an adequate level of information to make decisions on changes to land use.
- ❖ Benchmarking and Monitoring:
 - being achieved through the installation of deep groundwater monitoring bores, water quality sampling stations, the ecological surveys being undertaken by NPWS and monitoring of the changes in land use at the property level through property inventories.
- ❖ Implementation:
 - being undertaken in each of the catchments through the provision of incentive funding to landholders through cost sharing arrangements for works including perennial and native pastures, conservation farming, intercropping, farm forestry and vegetation conservation;
 - the incentive funding is being managed by the Landcare Steering Committees for the catchments.
- ❖ Skill Development of Landholders:
 - training programs that include formal training as well as attendance on relevant bus trips, field days and conferences, are provided to the landholders.
- ❖ Development of Incentive Packages:
 - the project is examining ways in which incentive packages can be delivered to landholders to make it attractive for them to change their land uses. As part of this activity, the use of market based incentives are being investigated as well as cost sharing arrangements to better reflect the contributions of the landholders in relation to environmental services.

- ❖ Promotion and Communications:
 - the project has a communication and promotion strategy to ensure that key stakeholders and other interested parties are kept informed of all developments.
- ❖ Crown Roads Trial Project in the Mid Talbragar Catchment:
 - the trial has been one of the most effective implementation projects for biodiversity. In New South Wales, a significant number of gazetted roads continue to exist as undeveloped stock routes and are used by landholders for grazing at a peppercorn rental;
 - the project has negotiated for landholders to forfeit use of these areas, with the land being vested in local landcare groups. The areas are protected, revegetated and managed by the landholders as important corridors of vegetation;
 - by using all of the Crown Land reserves plus the riparian vegetation areas of low flow creeks, 12.5% of the catchment becomes a biodiversity asset. This approach has demonstrated a non-threatening way to increase biodiversity within grazing focused regions.

Information Used:

National data sets:

- ❖ Threatened species listings
- ❖ AFFA data sets

State data sets:

- ❖ Department of Land and Water Conservation
- ❖ CSIRO data sets
- ❖ Australian National University data
- ❖ National Parks and Wildlife Service
- ❖ State Salinity Strategy

Regional data sets:

- ❖ Central West Region data sets

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved grants to provide incentives for land management change.
- ❖ Use of the Environmental Services Ratio to prioritise assessment and funding.
- ❖ Use of multi-period investment modeling to analyse current and future land use.

Community measures (motivational mechanisms):

- ❖ Socio-economic research conducted by the University to determine impediments to change.
- ❖ Ecological surveys.
- ❖ Monitoring and evaluation systems in place from the outset.

- ❖ Local and regional champions for the project.
- ❖ Vesting of gazetted road reserves with local Landcare groups.
- ❖ Access to external information and expertise.
- ❖ Education and extension with landholders.

Critical Success Factors:

- ❖ Strong foundation of action research and adaptive management as the operating paradigm.
- ❖ Partnerships built with research institutions to develop an understanding of the social and economic barriers to land management change.
- ❖ Good use of Commonwealth information sources.
- ❖ Close alignment of regional, state and national priorities.
- ❖ Biodiversity built into the project from the outset and integrated into the rest of the resource management actions being undertaken.
- ❖ Strong emphasis on implementation at a local level, with a willingness to work at the ground level to educate on biodiversity and negotiate mutually beneficial outcomes.
- ❖ Adopted lessons from NHT1 about the importance of establishing good monitoring to be able to show what has been achieved.
- ❖ Range of catchments investigated means a wider scope of application of the lessons learned.
- ❖ Focus on tackling institutional change by:
 - lateral thinking on existing stock routes;
 - flowing the achievements of the project on into policy development.

Further Reading:

- Papers in Environmental Management and Restoration;
- Website: www.npws.nsw.gov.au/science/research/woodland_ecology.

Contact for Further Information:

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Quote:

“You can’t put a funnel of money over a catchment and expect changes overnight, there are a lot of impediments that run deeper than funding.”

Allan Nicholson, Central West Region.

KWONGAN CONNECTIONS

A biodiversity-based education and awareness raising initiative

West Australia:

Region: Northern Agricultural region

Affiliated Regional NRM Group: Northern Agricultural Catchment Council (NACC)

Background

Lack of awareness was identified as the greatest threat to the unique (and internationally recognised) biodiversity of the West Midlands region. The focus of the project was the floristic biodiversity of the Kwongan heathland, which attracts national and international tourists year round. The immense diversity of the heathland, with marked transitions between vegetation communities over short distances, makes it difficult to ensure adequate representation in a reserve system. Raising broader community awareness of the value of the region's biodiversity was seen as a priority.

Although recognised internationally, there was very little understanding or appreciation, at a local scale, of this regional 'jewel'. The valuing biodiversity project aimed to:

- document and promote the unique biodiversity of the West Midlands; and to
- facilitate community education on the value of biodiversity.

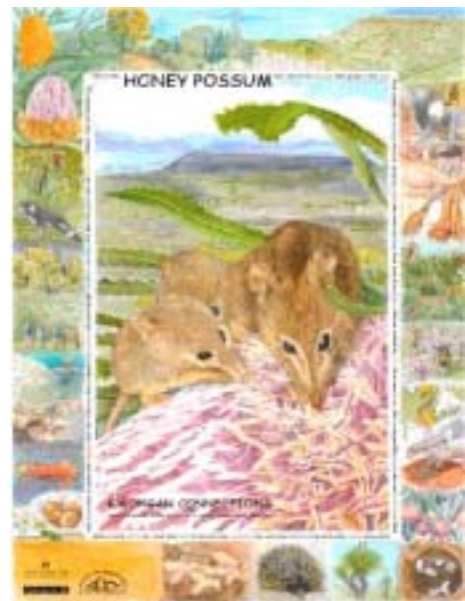
The project was an initiative of the WA Department of Agriculture and NACC.

Achievements to Date:

- ❖ *Kwongan Connections Honey Possum Poster*
This story poster features an eloquent and simple representation of the interconnectedness of the local ecosystem. It is a timeless story that appeals to all ages.
- ❖ *Kwongan Connections Wildflower Drive Map.*
The map filled a void in the eco-tourism market. There was only one map of the area and it was essentially a navigation tool. The Wildflower Drive Map incorporates information about the rich floristic diversity of the West Midlands area. Practical need combined with creativity to create a product that was informative, educational, useful and represents the beauty of the area.

It was developed with the assistance of the WA Department of Conservation and Land Management. It is a professionally produced and sold locally, including through the local tourist bureau.

The Northern Agricultural Catchments Council manages the proceeds from the map sales. These proceeds are set aside to fund further print runs and to maintain the website.



- ❖ *Kwongan Connections Biodiversity Education Kit Website; Kwongan Connections Biodiversity Education Kit Website Poster; and Kwongan Connections Biodiversity Education Kit Website Postcards*

One of the problems at the local community level was the complete lack of biodiversity information available to school children within the region. It was felt that there needed to be an environmental education package written about this unique region, for the children who live in the region. An education package was developed and presented as an informative, enjoyable, and accessible website. In addition, a poster of the website homepage was printed to help promote this important learning tool (www.kwongan.asn.au).

The value of this work has not been realised as the part-time co-ordination position, required to support and encourage uptake by local educators, was not funded for a third year.

- ❖ Valuing the Biodiversity of the West Midlands for Nature Based Tourism: a report.
- ❖ Promotion through static display materials and presentations.

Information Used:

Data access was an issue in the project. Although a significant amount of data exists about biodiversity in the region, it tends to be contained in scientific reports and proved difficult to access. Some data was obtained from the state agencies, but the most valuable source of information was local (and often hidden) knowledge.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Community measures (motivational mechanisms):

- ❖ Awareness-raising materials and activities.
- ❖ Education package developed and easily accessible.
- ❖ Part-time coordination/facilitation – particularly important in sourcing and accessing regional biodiversity data.

Critical Success Factors:

- ❖ Cultural appropriateness
- ❖ Local knowledge was invaluable
- ❖ Identified a niche in the eco-tourism market – the need for a more informative tool to support a tourism industry based on wildflowers.
- ❖ This was an innovative project for the region and it provided an opportunity for people to see the landscape from a different perspective. Local communities now value what is in the region and it has instilled a sense of pride and ownership of the region.
- ❖ The use of locally relevant information.

Quote:

“It got the ‘biodiversity ball rolling’ in the region.”

Margi Weir, former Co-ordinator

**DHIMURRU LAND MANAGEMENT ABORIGINAL CORPORATION
(NORTHERN TERRITORY)**

Using agreements and partnerships to generate support for biodiversity on-country

Northern Territory:

Region: Northern Territory

Affiliated Regional NRM Group: Northern Territory (under discussion)

Background

Dhimurru is an incorporated Aboriginal organisation established by the Aboriginal or Yolngu land-owners in Northeast Arnhem Land. Dhimurru's area of responsibility includes the estates of 14 Yolngu clans whose land covers approximately 8,500 sq kms.

The aim of Dhimurru is to address natural and cultural management priorities identified by its members, with particular emphasis on designated recreation areas, and to deal with them in accordance with the directions of the traditional owners.

In initiating Dhimurru, traditional Yolngu landowners recognised the urgent need for planned, sustainable and culturally appropriate management of the recreation areas as the township of Nhulunbuy developed and visitor numbers increased.

The Corporation employs traditional owners as Rangers to undertake associated activities and engages in participatory planning with senior community members to develop and implement management strategies.

Since its inception, Dhimurru has instituted a comprehensive and inclusive approach to conservation and resource management planning. Planning exercises undertaken by Dhimurru have addressed such diverse issues as soil conservation, fauna and flora conservation, visitor management and cultural resource conservation.

Twenty years of virtually uncontrolled recreation access by the residents of Nhulunbuy and visitors to the township up to 1992 had resulted in severe localised land degradation impacts and posed a major threat to the maintenance of natural and cultural values. The introduction of exotic invasive plants, the increasing prevalence of feral animals and growing concern about the impact of marine debris in the Gulf of Carpentaria added to the urgency of developing a strategic and cohesive approach to resource management.

While the efficacy of traditional resource management is a central tenet of Dhimurru's activities, it is acknowledged by the Yolngu community that many of the more recent impacts on natural and cultural resources are beyond the management capacity of traditional regimes.



INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

To address these obstacles, Dhimurru has sought to evolve a 'two ways' approach to many management issues; a synthesis of indigenous and non-indigenous resource management approaches, with final decision-making resting with the relevant traditional owners.

Achievements to Date:

- ❖ Fauna and Flora Survey of Cape Arnhem, with the Parks and Wildlife Commission of the Northern Territory.
- ❖ Threatened Species Fauna Survey with the Parks and Wildlife Commission of the Northern Territory and the Threatened Species Network (NT).
- ❖ Heritage Survey of Cape Arnhem, with the Australian Heritage Commission.
- ❖ Survey of Stone Picture Arrangements, with the Northern Territory Heritage Conservation Branch.
- ❖ Turtle Management Project to determine sustainable harvesting levels and develop a Turtle Management Strategy.
- ❖ Gove Crow Butterfly Project (endangered species IUCN categories) with the Parks and Wildlife Commission of the Northern Territory and the Threatened Species Network.
- ❖ Research on the ethno-zoology of frogs (and toad) in North East Arnhem Land, to create a record before the expected devastation by cane toads.
- ❖ Development of partnerships for collaborative research, planning and on-ground initiatives with partners including:
 - Yolngu landowners;
 - Alcan Gove Pty Limited;
 - ATSIC – Miwatj Regional Council;
 - Nhulunbuy Corporation Limited;
 - Northern Territory University;
 - NT Department of Infrastructure, Planning and Environment;
 - NT Department of Business, Industry, and Resource Development;
 - Australian Quarantine Inspection Service;
 - World Wide Fund for Nature (Australia);
 - Environment Australia;
 - Northern Land Council;
 - Aboriginal Benefits Account;
 - Indigenous Land Corporation;
 - Nhulunbuy Volunteers;
 - Australian Conservation Volunteers;
 - Humane Society International;
 - Marine and Coastal Community Network (NT).
- ❖ Fire management research and workshops that promote Yolngu land management and ecological knowledge to maintain the biodiversity values of the cultural landscape created by their ancestors.
- ❖ Establishment of the Dhimurru Indigenous Protected Area (Dhimurru IPA) to protect a land area of approximately 92,000 hectares (including the designated recreation areas), supplemented by approximately 8,000 hectares of adjacent marine areas, with both areas having acknowledged biodiversity and cultural values of a very high order.
- ❖ Creation of the Dhimurru Ranger scheme to build local capacity and maximise skills to manage resources, with four Rangers on IPA funding and four Rangers on CDEP funding.
- ❖ Establishment of a local environmental volunteer group, primarily comprised of non-indigenous residents of Nhulunbuy, to assist the organisation with on-ground projects. Volunteer activities provide an invaluable context in which to disseminate information to the broader community regarding Dhimurru's management priorities, activities and corporate ethos.

INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

- ❖ Initiation and support of the local Waterwatch group, Gapuwu Mel'ngu Mala - North East Arnhem Land Waterwatch NT Inc.
- ❖ A land management agreement, involving Dhimurru Land Management Aboriginal Corporation, the Northern Land Council, Environment Australia, and the Parks & Wildlife Commission NT under S.73. of the Territory Parks and Wildlife Act. Section 73 makes provision for the NT Parks and Wildlife Commission to enter into an agreement relating to management to protect and conserve wildlife on the land and to protect the natural features of the land. The agreement also involves the Northern Land Council as the relevant Land Council responsible for ascertaining the wishes of the traditional owners and Environment Australia representing the Commonwealth and administering the Indigenous Protected Area program.

The agreement:

- establishes an Advisory Group to provide formal recommendations relating to the management of the land for consideration by the Dhimurru Executive Committee;
 - recognises Dhimurru Land Management Aboriginal Corporation as the agency established by the Yolngu land owners for the purpose of managing natural and cultural resources;
 - specifies the services that are to be provided to land owners by Dhimurru, the Northern Land Council, and by the Parks and Wildlife Commission of the NT;
 - requires the development of a Plan of Management;
 - delegates Dhimurru to issue Visitor Permits for access to designated recreation areas.
- ❖ Development of the Dhimurru Visitors Guide and the Dhimurru web site.
 - ❖ Hosting of visits by other indigenous and non-indigenous groups, representation at state, national and international forums and hosting of the 4th Annual Indigenous Rangers Conference to lift the profile of community-based indigenous resource management.

Information Used:

National data sets:

- ❖ Endangered species listings
- ❖ IUCN standards

State data sets:

- ❖ Accessed as needed, depending on the projects, through:
 - Parks and Wildlife Commission of the Northern Territory
 - Heritage Branch of the Department of Land, Planning and Environment
 - Northern Territory University

Regional data sets:

- ❖ Traditional owners knowledge.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Regulatory mechanisms:

- ❖ IPA agreement with the Commonwealth Government to enable Dhimurru to support local, national and international priorities.
- ❖ Land Management Agreement under Section 73 of the Territory Parks and Wildlife Act to foster co-operation between the parties in the management of the area, without compromising traditional owners' rights.
- ❖ Implementation of Bylaws to enforce protection measures for recreational areas.

Economic instruments (financial mechanisms):

- ❖ All income from Visitor Permits goes to land management activities.
- ❖ Contracting the supply of services for quarantine, customs and interpretive services.
- ❖ Merchandising of multimedia products developed by Dhimurru.

Community measures (motivational mechanisms):

- ❖ Getting traditional owners back on-country.
- ❖ Local champions.
- ❖ Icon species as a focus for activities and protection.
- ❖ Philanthropic funding from Alcan to assist with the management of off-site impacts of mining.
- ❖ Access to technical information and resources from Territory agencies and non-government organisations.
- ❖ Awards.
- ❖ Education and extension.

Critical Success Factors:

- ❖ A 'two ways' approach to many management issues that integrates indigenous and non-indigenous resource management approaches.
- ❖ Landscape level approach is inherent in Yolngu land management.
- ❖ Biodiversity objectives have high compatibility with Yolngu land management objectives.
- ❖ Indigenous Ranger scheme provides a real role model to other community members.
- ❖ Active undertaking of traditional resource management practices such as the use of fire, within the Dhimurru IPA.
- ❖ Adoption of a partnership approach that has resulted in a wide range of agreements for collaborative research, planning and on-ground initiatives with external agencies.
- ❖ Use of agreements backed by legislation, at the Commonwealth, State and community levels.

INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

- ❖ IPA process has given a plan of management and considered objectives for the area.
- ❖ Initiatives around biodiversity to attract corporate sponsorship, contract the supply of services and merchandise a range of multimedia products developed by Dhimurru.
- ❖ Willingness to take a leading role in indigenous land management and an emphasis on building local capacity.
- ❖ Absolute commitment of key individuals, backed by effective support people.
- ❖ Integrated approach that combines cultural priorities, on-ground action, legislative agreements and strong partnerships with external agencies.

Further Reading:

- www.dhimurru.com.au

Contact for Further Information:

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Quote:

“Getting the people back on-country is the only way that these ecosystems will be effectively managed into the future”.

Steve Roeger, Dhimurru Land Management Aboriginal Corporation.

**VEGETATION INVESTMENT PROJECTS
(AUSTRALIAN CAPITAL TERRITORY)**

Building stepping stones for biodiversity, on a landscape scale

Australian Capital Territory:

Region: Murrumbidgee and ACT.

Affiliated Regional NRM Group: Murrumbidgee

Background

In 1999, Greening Australia ACT & South East NSW (GA ACT & SE NSW) received funding for the Vegetation Investment Project (VIP) through the Natural Heritage Trust to work with land managers in buffering, linking and protecting native remnant vegetation across three significant areas in the ACT.

CSIRO Wildlife and Ecology conducted research using the 'focal species' approach (Lambeck, 1997) and bird surveys were completed on 70 woodland sites in the north of the ACT. The study identified the habitat needs of 25 species of insectivorous birds and developed vegetation management guidelines, assisting GA ACT & SE NSW in identifying, improving and connecting patches of bush significant to local fauna.



The VIP project involved 55 land managers in protecting 102 hectares of remnant vegetation and re-establishing 249 hectares of native vegetation linking the Murrumbidgee across to Hall in the northern parts of ACT.

VIP South builds upon this success and applies the landscape conservation guidelines to the southern region of the ACT.

The objectives of VIP South are:

- to buffer, link and revitalise remnant vegetation in the southern parts of the ACT and surrounding NSW;
- tackle threats to biological diversity;
- implement proven revegetation guidelines developed through VIP;
- develop and ground truth a monitoring and assessment program;
- educate and engage southern rural land holders, landcarers, and organisations in a revegetation program that will link and complement northern activities, as part of the 'bigger picture'.

Vegetation activities involve enlarging vegetation patches, enhancing plant diversity, creating bridges between isolated habitats, establishing vital east and west vegetation links and providing buffers from urban development.

The project actively involves local landcare groups, rural leaseholders and the ACT Government in protecting, extending and linking farm remnants to Bullen Range, Gigerline and Googong Nature Reserve and Namadji National Park.

Achievements to Date:

- ❖ VIP South has created a number of essential corridors and 'stepping stones', with over 55 kilometres of fencing erected to protect 54,500 trees, shrubs and grasses, and over 130 kilometres of direct seeding.
- ❖ VIP South achieved over 100 hectares of native vegetation re-established and over 440 hectares of remnant vegetation protected and enhanced.
- ❖ In order to address threats to biodiversity, the project addressed the protection of high quality remnant vegetation, the enhancement of depleted remnant vegetation and the re-establishment of vegetation communities in highly modified land.
- ❖ Very few sites were identified as high quality remnant vegetation that only required the protection of grazing. In most cases, remnant vegetation required the enhancement of understorey species such as shrubs, forbs and grasses to increase biodiversity.
- ❖ The re-establishment and enhancement of native vegetation involved identifying species suitable for each site. Individual species lists were developed for all sites with consideration to indigenous species and suitable species to survive in modified landscapes.
- ❖ Guidelines developed through the original VIP were applied when assessing sites for VIP South and priorities for site selection were based on the following:
 - site extends, encloses or links an area of largely intact high conservation value vegetation;
 - site is of sufficient size and appropriate shape to meet the habitat needs of the focal and intermediate species;
 - work on the site will be maintained and managed to minimise the impact of threats such as urban development, weeds, feral animals, excessive grazing regimes, inappropriate burning regimes, etc;
 - protects and/or extends an endangered community or habitat for threatened flora and fauna;
 - sites which can be inspected, used for demonstrations, monitored and evaluated throughout a number of years.
- ❖ Under the CSIRO guidelines, ten VIP Sites were greater than 10 hectares, with two sites reaching 100 hectares. Sites smaller than 10 hectares were selected, based on connectivity to other sites or remnant vegetation, to reduce isolation:
 - across 5 kilometres, 62 hectares was protected and re-established amongst 16 sites to create a connected network of patches that functions like a series of large and complex patches or 'stepping stones';
 - revegetation of some sites addressed many threats to the environment such as dryland salinity and erosion, as well as habitat loss;
 - linear plantings included corridors along riparian systems and links between remnants;
 - linear plantings were an average 25m wide and all sites were established with at least 20% shrub cover.
- ❖ Small rural residential development caused some concern during the establishment of VIP South because most properties are smaller than 10 hectares, questioning the benefits to biodiversity. However there was great interest from land managers to be involved in

revegetation activities and as the number of properties increased, more sites became connected and created bigger stepping stones.

- ❖ In a small area with a large number of land managers, the project was able to engage the community to work together, encourage neighbours to be a part of the project, identify gaps and approach owners of these areas to get involved.
- ❖ More than 1,300 community volunteers have planted over 16,000 native trees and shrubs and contributed more than 3,400 work hours to create bush stepping stones.
- ❖ By working in these newly developed rural residential areas, VIP South was able to engage and educate people who are very new to conservation activity. This resulted in a newly formed landcare group, Royalla Landcare, to source additional funding to continue the work.
- ❖ On-going monitoring is carried out at each site by the land manager including inspecting plant survival and species performance, weed infestation and competition, natural regeneration, fauna activity, follow-up maintenance and photo records.
- ❖ A monitoring manual was developed to monitor original VIP sites and is also used to monitor VIP South sites. The monitoring manual records information on the following:

Ecological parameters

- weed infestation;
- revegetation plant growth and survival, including from photo points;
- level of natural regeneration;
- climatic conditions and impacts on project outcomes;
- species of birds present.

Implementation parameters

- degree and level of management requirements by land manager;
- land manager perceptions;
- barriers to adoption;
- flow-on effects.

Information Used:

National data sets:

- ❖ National Land and Water Atlas.

State data sets:

- ❖ Environment ACT data base and mapping information.

Regional data sets:

- ❖ CSIRO Wildlife and Ecology surveys.
- ❖ GA ACT and SE NSW data sets.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved grant scheme used to allocate funding for on-ground revegetation;
- ❖ As part of maintenance agreements, funding is provided to assist weed control and replacement plantings.

Community measures (motivational mechanisms):

- ❖ Local facilitators to assist landholders to plan and implement.
- ❖ Access to external information.
- ❖ Development of partnerships with research institutions such as CSIRO Wildlife and Ecology.
- ❖ Ecological surveys.
- ❖ Focal species approach.
- ❖ Comprehensive monitoring systems in place for biodiversity and community involvement.
- ❖ Awards (winner of a Bushcare Nature Conservation Award at the ACT Landcare Awards).
- ❖ Land managers sign agreements to maintain sites for a minimum of 10 years.
- ❖ Education and awareness.
- ❖ Community engagement.

Critical Success Factors:

- ❖ Project is based on a scientific approach, with focal species methodologies, comprehensive surveys, mapping of sites, recording of site information and monitoring of biodiversity targets.
- ❖ Priorities are established for revegetation, based on guidelines developed by CSIRO to enhance the connectivity of remnants;
- ❖ Landscape level approach, with priority areas identified and landholders approached for involvement, in order to link up the larger landscape.
- ❖ Biodiversity outcomes integrated with other resource management issues, such as salinity.
- ❖ Success of the first project (VIP) expanded on into the second project (VIP South).
- ❖ Project is aligned with regional and national priorities.
- ❖ Simple and effective devolved grants scheme that is tied to focused outcomes and allows landholders to get rapid approval.
- ❖ Strong partnership between CSIRO, GA ACT and SE NSW and local landholders.
- ❖ Strong interest from land managers in small rural residential areas means engagement and education of people who are new to conservation activity.

Further Reading:

Fact Sheets on:

- Remnant Vegetation;
- Living With Salinity;
- Australia Natives – Seed Collection & Propagation;
- Revegetation With Natives – Tubestock Planting & Direct Seeding;
- Monitoring and Evaluation;
- Biodiversity on Hobby Farms.

Contact for Further Information:

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Quote:

“These projects have been a real incentive for landholders to think about what they might do over the next five to ten years”.

Susie Wilson, GA ACT & SE NSW.

BIRDS FOR BIODIVERSITY – MT LOFTY RANGES (SOUTH AUSTRALIA)

A multi-species regionally-based recovery program for bird taxa.

South Australia:

Region: Mount Lofty Ranges

Affiliated Regional NRM Group: Mount Lofty Ranges (interim) Integrated Natural Resource Management Group

Background

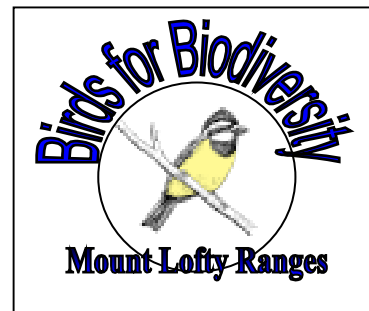
The Mount Lofty Ranges is an ecologically diverse region that is home to a wide range of bird taxa. However, the high rate of clearing (approximately 16% of native vegetation remains), combined with other environmental threats has resulted in a significant decline in the diversity and abundance of birds in the region.

The National Action Plan for Australian Birds 2000 identified the Mount Lofty Ranges as having one of Australia's largest concentrations of threatened bird taxa. In response to this finding, the Mount Lofty Ranges (MLR) Bird Task Force was convened and the Birds for Biodiversity program was initiated.

The Birds for Biodiversity program is a multi-species recovery project that uses declining birds as flagship taxa. The project involves a number of research and conservation activities designed to address the requirements of a range of species across the region. It is an active adaptive management approach for regional biodiversity outcomes.

The goal of the program is to:

prevent the loss of more birds from the Mount Lofty Ranges by re-establishing and maintaining regionally viable populations of bird taxa identified as declining in the region. This includes the nine species identified as being of regional conservation significance in the National Action Plan for Australian Birds 2000.



Achievements to Date:

- ❖ The project commenced in June 2002, with project officers commencing in September 2002.
- ❖ An Interim Recovery Plan is being developed. This plan will identify current knowledge and gaps with respect to critical habitat, as well as identifying significant threats and priority management actions for declining bird species.
- ❖ A Habitat Strategy that will provide a spatially explicit description at multiple scales (from the sub-region to the individual remnant) of landscape characteristics, vegetation communities, and species' populations. This will be used to identify appropriate management actions and priorities for each sub-region.

Information Used:

- ❖ Declining species have been identified through the comparison of a range of databases compiled in different time periods:
 - South Australian Ornithologists Atlas 1975 and 1985;
 - Birds Australia Bird Atlases;
 - Department of Environment and Heritage data;
 - Research data from local and interstate universities.
- ❖ The data exists on a GIS.
- ❖ Declining status was derived from an expert system which considered ecological data on the individual species and changes in their abundance and distribution over time.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved grants scheme linked to habitat protection, management and re-establishment, and delivered through an adaptive management process.

Community measures (motivational mechanisms):

- ❖ Education and awareness raising activities.
- ❖ Training program for natural resource workers and volunteers across a range of areas including bird surveys.
- ❖ Technical advice for land managers to support improved on-ground activities for biodiversity outcomes.
- ❖ Communication strategy that identifies and links key stakeholders and will provide a mechanism for prioritising future actions. It will identify key stakeholders in terms of their influence on biodiversity outcomes and will identify strategies to involve them in the project.

Important Features:

- ❖ The long-term nature of the program and the identification of realistic timeframes within which to evaluate outcomes.
- ❖ Planning based on sound science.
- ❖ Action research/ adaptive management model may result in:
 - improved information and knowledge base regarding the restoration of various habitat types;
 - better understanding of the requirements of birds in the region;
 - a better understanding of the adequacy of conservation activities based on the requirements of birds, for the protection of other flora and fauna species.
- ❖ Partnership approach with research institutions that will be important for achieving the anticipated scientific outcomes.
- ❖ Building on the efforts of previous work undertaken by a range of stakeholders and aiming to add value to existing projects.

- ❖ The Interim Recovery Plan and the associated Communication Strategy and Habitat Restoration Strategy may provide useful science-based tools for guiding biodiversity investment in the region.
- ❖ This is a “watch this space” project that has potential to develop into an important approach to biodiversity conservation at a regional scale.

Further Reading:

- Birds for Biodiversity MLR project - information sheet;
- Birds for Biodiversity MLR project, *A Multi-Species Recovery Project for the Declining Birds of the Mount Lofty Ranges*. Brochure;
- Garnett, S.T, and Crowley, G.M (2000). *The Action Plan for Australian Birds 2000*. Environment Australia (in association with Birds Australia).

Contacts for Further Information:

Conservation Council of South Australia (CCSA)
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NOOSA SHIRE COUNCIL (QUEENSLAND)

Biodiversity priorities guiding development in the Noosa Shire

Queensland:

Region: South East Queensland

Affiliated Regional NRM Group: The Burnett-Mary and the Eastern South East Queensland Regional Groups

Background

South East Queensland is a region of high biological diversity and of significant endemism. Noosa Shire sits within this region and is an area of approximately 81,000ha, 62% of which is private freehold tenure and 17% is protected as Conservation Reserves (National Parks or Conservation Parks).

91% of the native vegetation in the Shire, which is classified as an “endangered regional ecosystem” and 48% of vegetation classified as “of concern”, is outside of the Conservation Reserves.

Significant areas of land have been cleared in the Noosa Shire and pressure on the natural environment is increasing as the population continues to grow.

Achievements to Date:

- ❖ Noosa Shire Council is actively engaged in biodiversity conservation across the Shire and supports a number of activities that aim to engage the broader community in nature conservation.
- ❖ Within a state based legislative framework that includes the Nature Conservation Act (1999) and the Integrated Planning Act (1997), Noosa has initiated a range of activities that will make it easier to meet regional, state and national biodiversity targets through local activities. Of particular interest is the Shire’s inclusion of locally based biodiversity research outcomes into its Planning Scheme.



Photo acknowledgment: Noosa National Park, Noosa Shire Council

Information Used:

National data sets:

- ❖ IBRA
- ❖ Rare and threatened species

State data sets:

- ❖ Regional Ecosystem Mapping developed by the Queensland Herbarium and used by the Department of Natural Resources and Mines to assess development applications. This mapping also supports the Vegetation Management Act (1999).
- ❖ Threatened species under the Queensland Nature Conservation Act (1999).

INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

- ❖ Environmental Protection Agency, Wildnet records for Noosa Shire.
- ❖ Queensland Museum data.

Regional data sets:

- ❖ Refined version of the State Regional Ecosystem Mapping, at a scale more relevant to the Shire scale (1:25,000 vs 1:100,000), which has allowed the Shire to identify 120 regional ecosystem types.
- ❖ Noosa Shire Fauna Study.
- ❖ Data from a range of local research projects.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Regulatory mechanisms:

- ❖ The outcomes of a Shire funded fauna study and vegetation mapping work have been used to identify biodiversity conservation priorities throughout the Shire. These priorities are being used to inform the Shire's Planning Scheme.
- ❖ Introduction of a Vegetation Management Local Law that aims to conserve the Shire's natural resources (biodiversity is clearly identified).
- ❖ Conservation covenants under the Lands Act.
- ❖ Negotiating with private land managers to establish Nature Refuges under the Nature Conservation Act.

Economic instruments (financial mechanisms):

- ❖ Annual devolved grants scheme that supports a range of conservation related activities throughout the Shire.
- ❖ Acquisition of environmentally significant land through a conservation levy program. The objectives of the conservation levy program are to:
 - protect environmentally significant land as part of a wider strategy for habitat protection;
 - manage acquired land for existing and future generations such that the environmental significance of the land is protected in the short and long term; and
 - maximise the use of available funding in terms of the ultimate cost of the land, the community benefits gained by the purchase, the environmental significance of, and associated threats to, the site.
- ❖ Supporting the adoption of farm forestry using local native species. Council has amended its Planning Scheme to ensure the security of harvest of trees planted on previously cleared land, for the purposes of timber production.

Community measures (motivational mechanisms):

- ❖ Land for Wildlife: Noosa Council has made a long term commitment to supporting the Land for Wildlife program through the employment of a Land for Wildlife Officer.
- ❖ Leading by example: the Shire actively manages Council owned or managed bushland reserves.
- ❖ Noosa Council works in partnership with seven independent community based conservation groups throughout the Shire and has established 12 community bush care groups, within local communities across the Shire.

- ❖ Vegetation Property Planning Management Kit: the Council can provide a range of resources to land managers to assist in the preparation of management plans. These include:
 - a recent aerial photograph of the property;
 - to-scale base map showing contour intervals, cadastral boundaries, water courses and existing vegetation; and
 - information about soil types, vegetation types and potential land degradation on the property or a property visit to identify the soil and vegetation types.
- ❖ An excellent website, maintained by the Council, that highlights the environmental services provided by the Council and contains a significant amount of local biodiversity information.
- ❖ Noosa Shire Council produces a 'State of the Environment' report for the Shire.
- ❖ Monitoring and evaluation mechanism to monitor the response of native vegetation to adopted strategies and management policies.

Critical Success Factors:

- ❖ Shire investment in making broader databases relevant at the Shire scale, eg: the Regional Ecosystem Data refinement.
- ❖ Clear support of measures to increase capacity for improved decision making at the property scale.
- ❖ Mix of mechanisms used to achieve biodiversity conservation.
- ❖ Accessibility of locally relevant information about the natural resources of the Shire, via the website.
- ❖ State legislative framework guiding conservation activities, specifically the Integrated Planning Act (1997), which provides a framework for the planning and assessment of development. It is a framework for a co-ordinated and integrated approach to catchment management in relation to regional and local Planning Schemes. Nature conservation is a key element of Planning Scheme guidelines.
- ❖ Biodiversity is well and truly on 'the agenda' within the Shire. It is a proactive Shire that is actively involved in the South East Queensland Regional Organisation of Councils (SEQROC). SEQROC provides a vehicle for regional scale consideration of issues, including natural resource management, and is a driver of biodiversity conservation.

Further Reading:

- Noosa Council website: www.noosa.qld.gov.au
- Burrows, D.M. (2002). *Vegetation Management Strategy Implementation*. Case Study Report. Environmental Services Section, Noosa Council. Available on the Noosa Council website.

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WOODLAND WATCH (WESTERN AUSTRALIA)

Community conservation of tall eucalypt woodlands

Western Australia:

Region: Wheatbelt regions

Affiliated Regional NRM Group: Avon Catchment Council;
Northern Agricultural Catchment Council.

Background

Woodland Watch is a World Wide Fund for Nature (WWF) Australia project, based in the wheatbelt regions of Western Australia.

The project has targeted landholders with good quality tall eucalypt woodlands, particularly those containing woodlands grossly under-represented in the conservation estate.

It has led to the protection of thousands of hectares of bushland through conservation covenants, revolving funds, local Shire rebates, Land for Wildlife and voluntary management agreements.



The core assumptions underlying the project are that:

- eucalypt woodland communities have been extensively cleared (approximately 3% of their original range remains in the Western and Central Wheatbelt) and are poorly represented in existing conservation reserves;
- there is insufficient data about the different woodland types, their floristic composition and their distribution, particularly on private land;
- a suite of options for management and conservation on private land, as well as increased representation in the National Reserve System, will be necessary to protect these ecosystems for the future;
- examples on private land need to be identified before management options can be negotiated;
- many woodland remnants have severely disrupted ecological processes, are no longer viable ecosystems and therefore, require adaptive management to survive into the future.

Project objectives are to:

- clarify what distinct types of tall eucalypt woodland communities exist on private and non State-agency land in the heavily cleared western wheatbelt, through a desk-top survey and consultation with the community;
- conduct botanical surveys of up to 40 different woodlands, identified in the process above;

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- raise awareness amongst rural and urban communities of the diversity of woodland types, their intrinsic values, their current and future health, and long-term management options and incentives;
- negotiate the long-term conservation (including sound management plans for their long-term health) of the best examples of different types of woodland in the western wheatbelt (a total of at least 10 woodlands), especially those that are threatened;
- assess each identified community as to conservation status, enter any threatened ecological communities (TECs) onto the State TEC data base and nominate them for listing under the Commonwealth Endangered Species Protection Act.

Project implementation:

- identify poorly conserved woodland associations from literature sources, vegetation data bases, and spatial information (remote sensing and GIS) held by CALM staff, WA Department of Agriculture, CSIRO, LCDCs, local naturalists and landholders;
- consult with regional networks such as Bushcare Support Officers, Community Landcare Co-ordinators, Land for Wildlife Officers, Local Governments and the Threatened Species Network co-ordinator in order to gain additional information about woodland locations and to increase public support for the identification and conservation of tall eucalypt woodlands;
- conduct woodland field days to raise the profile of the diversity of different woodland types, and discuss management and conservation options;
- conduct field surveys with the agreement of land managers, to confirm the vegetation associations, condition, distribution, boundaries and condition of particular woodland communities identified above;
- assess each woodland community surveyed for its conservation significance and negotiate conservation incentive schemes, and landscape-scale recovery options in direct liaison with landholders, for conserving and / or rehabilitating woodlands.

Achievements to Date:

- ❖ 85 landholders with high-quality woodlands actively participating in the project.
- ❖ 87 high-quality woodland sites identified and assessed.
- ❖ 87 flora surveys conducted, with 3,143 new plant specimens lodged and vouchered at the Western Australian Herbarium.
- ❖ Discoveries of possibly 13 new species, 12 new populations of rare or priority flora species, and range extensions for numerous other species.
- ❖ Woodland Watch flora survey data lodged on CALM's Florabase Website for free and open public access to all data.
- ❖ 40 landholders have either implemented or initiated conservation covenants, Land For Wildlife agreements or other voluntary conservation agreements.
- ❖ 4,626 hectares (11,565 acres) of bush placed under conservation agreements:
 - 2,135 hectares in conservation covenants (20 landholders);
 - 3,143 hectares in Land For Wildlife (25 landholders).
- ❖ 13 local authorities involved in the project and developing programs aimed at increasing local environmental awareness, management and conservation outcomes (eg: the Shire of Beverley has reclassified 14 local reserves to include 'for protection of flora and fauna').

INTEGRATION OF BIODIVERSITY INTO REGIONAL NRM PLANNING

- ❖ Liaison with six community conservation groups assisting local authorities to develop conservation policies and management plans.
- ❖ Organisation and successful conduct of Western Australia's inaugural BioBlitz (24 hour rapid biodiversity assessment) of the 1,833ha Lake McDermott Reserve, Bencubbin.
- ❖ Positive changes to attitudes among numerous rural landholders regarding native vegetation on their land.
- ❖ Working partnerships developed and strengthened between WWF and other stakeholders, including the Western Australian Herbarium, the WA Department for Conservation and Land Management, the Avon Catchment Council, Greening Australia (WA), National Trust (WA), North Eastern Wheatbelt Regional Organisation of Councils, Alcoa and community groups.
- ❖ Improved community awareness of the importance of woodlands and increased appreciation and desire for their protection, through:
 - 68 presentations by Woodland Watch staff;
 - 16 displays at agricultural field days, conferences and other activities;
 - 40 published newspaper / magazine / newsletter articles;
 - 6 radio interviews with Woodland Watch staff;
 - 7 Woodland Watch newsletters.

Information Used:

National data sets:

- ❖ Commonwealth Endangered Species Protection Act.

State data sets:

- ❖ State threatened ecological communities data base;
- ❖ GIS data bases held by CALM WA, Department of Agriculture, CSIRO;
- ❖ State Herbarium standards;
- ❖ CALM Florabase.

Regional data sets:

- ❖ Land Conservation District Committee data bases and GIS data;
- ❖ Bushcare Support data;
- ❖ Land for Wildlife data;
- ❖ Community Landcare Co-ordinators' data;
- ❖ Local Government data bases;
- ❖ Threatened Species Network.

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Revolving funds.
- ❖ Local Shire rebates.
- ❖ Corporate sponsorship.

Community measures (motivational mechanisms):

- ❖ Data base searching and spatial information interrogation.
- ❖ Botanical surveys.
- ❖ Consultation with landowners and community members.
- ❖ Local champions.
- ❖ Icon and focal species approaches.
- ❖ Local extension staff, providing planning, technical support and skills development.
- ❖ Access to external information and extensive monitoring of biodiversity targets.
- ❖ Education and awareness.
- ❖ Non-binding, voluntary conservation schemes, such as Land for Wildlife and WWF's Woodland Watch Conservation Agreement.
- ❖ Conservation covenants, such as those offered by the WA Department of Agriculture, the WA Department of Conservation and Land Management and the National Trust of Australia (WA).

Critical Success Factors:

- ❖ Focus on good quality areas of bush under private and Shire ownership or management.
- ❖ Active and effective project champions.
- ❖ Strategic identification of priority areas.
- ❖ Face-to-face work with landholders makes conservation science readily accessible.
- ❖ Strong extension support and technical advice provided.
- ❖ Brokering of a range of conservation options to landholders, including voluntary conservation schemes, conservation covenants and sale of land through Bush Bank, Bush Brokers, Australian Bush Heritage Fund or government inclusion in the national reserve system.
- ❖ Good integration with other biodiversity agencies and organisations.
- ❖ Project is establishing a significant base of information that is available to other projects.
- ❖ Strong promotional component within the project.
- ❖ Significant uptake of conservation options by owners and managers.

Further Reading:

- www.wwf.org.au

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DRAFT MALLEE NATIVE VEGETATION PLAN (VICTORIA)

A well structured approach that flows to the local level.

Victoria:

Region: Mallee Region

Affiliated Regional NRM Group: Mallee Catchment Management Authority

Background

This project contributes to all six objectives of the draft Mallee Native Vegetation Plan (Mallee CMA, 2000) by increasing awareness and appreciation of native vegetation, protecting and enhancing remnants, encouraging landholders to integrate native vegetation management into agricultural practices and utilising native vegetation to rehabilitate degraded landscapes.



These actions also contribute to one of the key goals of the draft Mallee Regional Catchment Strategy (MCMA, 2002), by maintaining ecological processes and protecting and improving the extent and quality of biodiversity in the Mallee. A number of further actions have been addressed including; protecting rare and threatened species, ensuring that wildlife corridors are recognised and maintained as a vital community assets and protecting, enhancing and developing corridors and nodes which are nominated in various Plans.



Actions of the Mallee Roadside Management Strategy (Mallee CMA, 1998) have also been addressed, in particular, educating the community on the value and importance of roadside vegetation.

How the Plan was Developed:

The Mallee CMA initiated a Steering Committee and a technical sub-committee to oversee development of the plan. The Mallee CMA's Regional Bushcare Facilitator co-ordinated the development of the plan.

The steps taken to develop the Mallee Native Vegetation Plan were:

1. Adopt the State-wide framework for Native Vegetation Plans that was developed by the Catchment and Water Division of the Department of Natural Resources and Environment;
2. Adopt the Victorian Principles for Native Vegetation Management and the Native Vegetation Retention Assessment process;
3. Establish Mallee Principles for Native Vegetation Management;
4. Identify native vegetation resources and threats;
5. Analyse native vegetation threats against resources;

6. Obtain background information on the Mallee region and the importance of native vegetation resources;
7. Develop the Vision, Objectives and Targets;
8. Develop Management Actions;
9. Obtain the comments of key stakeholders.

The Mallee Native Vegetation Plan was developed over a period between 1998 and 2000. The plan has received endorsement to be released for public consultation by the Mallee CMA. Comments from the consultation process will be incorporated into the final Mallee Native Vegetation Plan.

Achievements to Date:

- ❖ Over 7,000ha of native vegetation management works have taken place.
- ❖ Increased awareness and appreciation of native vegetation and its value has been achieved through talks, articles, field days, training and other promotion.
- ❖ Significant corridors and nodes have been protected and enhanced in conjunction with Shires and Landcare groups in the Mallee.

Information Used:

- ❖ Draft Mallee Native Vegetation Plan (MCMA, 2000)
- ❖ Victoria's Biodiversity Strategy

National data sets:

- ❖ National Action Plan data
- ❖ National Land and Water Atlases
- ❖ Flora Information System

State data sets:

- ❖ Victoria's Biodiversity Strategy
- ❖ Victoria's Native Vegetation Management Framework
- ❖ Action Statements, Recovery Plans

Regional data sets:

- ❖ Mallee CMA data sets

Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved grants for implementation and on-ground works.
- ❖ Cost sharing arrangements with landholders.
- ❖ Rating incentives with some Local Government authorities.

Community measures (motivational mechanisms):

- ❖ Local facilitators (Project Officers employed by the Department of Primary Industries).
- ❖ Access to external information.
- ❖ Planning and technical support through Catchment Management Officers.
- ❖ Biodiversity target setting and monitoring.
- ❖ Focus on endangered and threatened species.
- ❖ Education and awareness.

Critical Success Factors:

- ❖ The Plan is guided by state, regional and local priorities:
 - at the state level, the Biodiversity Strategy and the Native Vegetation Management frameworks provide the context;
 - at the regional level, the Regional Catchment Strategy guides the customisation of the Native Vegetation Management Plan;
 - at the local level, Biodiversity Action Plans support the Native Vegetation Management Plan.
- ❖ Extensive use of Commonwealth and State databases.
- ❖ Large devolved grant scheme with incentives for priority vegetation, large areas on private land, threatened vegetation communities and threatened species.
- ❖ Extension staff working directly with community members.
- ❖ Recognition that implementation of on-ground works needs a high level of technical support to landholders to build their capacity to understand the issues and take the major step to commit to native vegetation works.
- ❖ Recognition that labour support is particularly crucial in remote areas. In cases where landholders are older or have no time to fence, and the works are an area of high priority, labour support will be provided to complete the work required, plus the incentives will be paid. A certain level of cost sharing is still required.

Further Reading:

- Draft mallee Native Vegetation Plan;
- Draft Landscape Plan for Murray Scroll Belt (Mallee CMA).

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**VICTORIA RIVER DISTRICT CONSERVATION ASSOCIATION
(NORTHERN TERRITORY).**

Changing attitudes to conservation and cattle

Northern Territory:

Region: Northern Territory

Affiliated Regional NRM Group: Northern Territory (under discussion)

Background

The Victoria River District Conservation Association (VRDCA) is a voluntary conservation group formed in 1987, initially as a pastoralists' lobby group on environmental issues.

It's membership covers a prime grazing region of 140,000 km² of the Northern Territory and includes extensive cattle operations, National Parks, Interested Individuals, and Aboriginal Land Managers. The Defense Department is an associated member. The VRDCA recently appointed a full time co-ordinator.

Achievements to Date:

The Association currently runs a large devolved grants scheme to encourage pastoralists to incorporate conservation into their cattle operations. Projects funded include::

- funding 2 PhD students; studying the Purple Crowned Fairy Wren as an indicator species of rangeland condition and the effectiveness of riparian fencing in biodiversity conservation.
- fencing of riparian zones to improve management of river corridors and critical areas;
- subsidised purchase of radio tracking collars on donkeys and pigs to improve feral animal control and eradication;
- control of imported and invasive weed species (ie. the Neem Tree (*azadirachta indica*) in river corridors);
- effects of various grazing management regimes on biodiversity;
- Rangeland Management Courses for Station employees.
- Erosion control measures



Other activities have included:

- ❖ an educational video on road & track maintenance;
- ❖ conservation work around RAMSAR listed Birindoodoo Lakes and Wetlands, including fencing, exclusion of stock, regeneration of Bluebush and eradication of *parkinsonia*.
- ❖ native grass revegetation activities and an identification CD in cooperation with Greening Australia;

Controlled grazing is now firmly established as a practice that leads to better management and spelling of the country.

Information Used:

National data sets:

- ❖ Accessed through Bushcare Support Officers
- ❖ Accessed via the Internet

Territory data sets:

- ❖ Accessed through the Department of Infrastructure, Planning and Environment
- ❖ Accessed through the Department of Business, Industry and Resource Development

Regional data sets:

- ❖ Accessed through Tropical Savannas CRC
- ❖ Accessed through partners such as Greening Australia (NT)
- ❖ Pastoral manager's knowledge



Market and Non-Market Mechanisms for Biodiversity Conservation:

Economic instruments (financial mechanisms):

- ❖ Devolved grants scheme.
- ❖ Development of cost sharing partnerships with research institutions and corporate organisations.

Community measures (motivational mechanisms):

- ❖ Local champions.
- ❖ Access to external information – especially from scientific agencies.
- ❖ Access to planning support, technical advice and skills development.
- ❖ Use of RAMSAR listing mechanisms.
- ❖ Focal species used as an indicators.
- ❖ Education and awareness.
- ❖ Use of links to Aboriginal capacity building programs

Critical Success Factors:

- ❖ Integration of conservation activities into the core of cattle operations, through an effective devolved grants scheme.
- ❖ Biodiversity seen as complementary to good management of country and cattle operations.
- ❖ Devolved grants scheme is an effective capacity-building mechanism because:
 - It calls for applications from all of the members;
 - the Association has been harder and more conscious of its public group role; it has understood the responsibility of having money devolved to the group and has come to terms with the notion of public good;
 - reports and recommendations are put up on each application;
 - decisions are made by a panel of experienced pastoral managers.
- ❖ Growth in social and group capacity as a result of teaching themselves how to run a large devolved grant scheme.
- ❖ Successful in forming partnerships to get support and assistance to implement actions, eg: DIPE, Greening Australia (NT), individual pastoral companies.
- ❖ Innovative research alliances formed, eg: Tropical Savannas CRC (science input) and Heytesbury Pastoral Company (land and funding for fencing) to investigate grazing / biodiversity options and systems.
- ❖ Significant attitude changes by members, over the life of the Association.
- ❖ Growth in awareness of social responsibility, notions of public good and biodiversity ethics that have evolved from within the group rather than as a result of external guidelines or frameworks.
- ❖ Desire to be proactive and to get their own subregional planning in place.
- ❖ Encouragement for Aboriginal owned and managed pastoral operations, National Park areas and the Timber Creek community.
- ❖ Conceptual awareness of social responsibilities that are broader than cattle operations.
- ❖ Ready and waiting for any regional approach.

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Quote:

"Years ago, we made a lot of mistakes in this country. Now days, we never make a single decision on our property without considering the environment".

Pastoralist, at a recent VDRCA meeting.