Australian Government

Department of the Environment and Heritage

The National Reserve System Programme

2006 Evaluation by Brian Gilligan

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Photo credits ***Top:*** *Anindilyakwa IPA, NT – Steve Strike.* ***MIddle:*** *Gouldian Finch, Mornington Nature Reserve, WA Australian Wildlife Conservancy – Ecopix .* ***Bottom:*** *Waterlily at Mornington Nature Reserve – Ecopix.* ***Next page:*** *Desert patterns of mulga, gidgee, spinifex and dunes at Cravens Peak Nature Reserve QLD, Australian Bush Heritage Fund – Nick Rains.*

Economic analyses by
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Abbreviations

ANZECC	Australian and New Zealand Environment and Conservation Council
CAR	Comprehensive, Adequate and Representative
CBD	Convention on Biological Diversity
CMA	Catchment Management Authority
COP7	Seventh Meeting of the Conference of the Parties to CBD
DEH	Department of the Environment and Heritage
IBRA	Interim Biogeographic Regionalisation for Australia
IPA	Indigenous Protected Area
IUCN	The World Conservation Union
NAP	National Action Plan for Salinity and Water Quality
NGO	Non-Government Organisation
NHT	Natural Heritage Trust
NIS	National Investment Stream
NRM	Natural Resource Management
NRMMC	Natural Resource Management Ministerial Council
NRS	National Reserve System
NRSCP	National Reserves System Cooperative Programme
PAPL	Protected Areas on Private Land
SoE	State of the Environment
WCPA	World Commission on Protected Areas

Executive Summary

Photo credits ***Left:*** *Rock art, Anindilyakwa IPA.* ***Top:*** *Cravens Peak Nature Reserve QLD, Australian Bush Heritage Fund – Nick Rains.* ***Middle:*** *Cycad , Anindilyakwa IPA – Steve Strike.* ***Bottom:*** *Len Rule, Craven's Peak QLD – Nick Rains.*

Executive Summary

Background

An independent evaluation of the National Reserve System (NRS) Programme was initiated in 2006 to inform ongoing development of policy frameworks for implementation of current and future natural resource management initiatives.

The evaluation is consistent with other national evaluations of the Natural Heritage Trust (NHT) and the National Action Plan for Salinity and Water Quality (NAP) undertaken in 2005-06. The purpose of these evaluations was to assess the NHT and NAP national programmes to see what is working well and what improvements can be made to make them more effective. The 2006 review of the NRS Programme contributes to this assessment and informs ongoing implementation of the *Directions Statement: Directions for the National Reserve System – A Partnership Approach,* approved by the Natural Resource Management Ministerial Council in May 2005.

The NRS Programme invests NHT funds for delivery of the following NHT priority activity:

v) establishing and effectively managing a comprehensive, adequate and representative system of terrestrial protected areas.

In addition, the NRS Programme contributes, in conjunction with other Trust programs, to the following NHT priority activities:

i) protecting and restoring terrestrial threatened species habitat and threatened ecological communities, and migratory birds;

ix) providing landholders, community groups and other natural resource managers with understanding and skills to contribute to biodiversity conservation and sustainable natural resource management; and

x) supporting institutional and organisational frameworks that promote conservation and ecologically sustainable use and management of natural resources.

The NRS Programme seeks to achieve its objective by working with all levels of government, industry and the community to:

1. establish and manage new ecologically-significant protected areas for addition to Australia's terrestrial NRS;
2. provide incentives for Indigenous people to participate in the NRS through voluntary declaration of protected areas on their lands and support for greater involvement in Indigenous people in the management of existing statutory protected areas;
3. provide incentives for landholders (both private landholders and leaseholders) to strategically enhance the NRS; and
4. develop and implement best practice standards for management of the NRS.

In 1996-97 the previous National Reserve System Co-operative Programme (NRSCP) which had operated since 1993 was brought under the NHT as the NRS Programme, one of five NHT capital programmes.

Funding for the NRS Programme

NRS Programme funding was approved in 1996–97 for five years. The Programme was subjected to a mid-term review in 1999 and funding was subsequently extended for a further five years to 2007–08.

Key funding areas targeted by the NRS Programme include:

- land acquisition by State and Territory conservation agencies;
- land acquisition for management as protected areas by community groups;
- voluntary establishment of protected areas on private land;
- voluntary establishment of Indigenous protected areas; and
- development and implementation of best practice protected area management.

2006 Evaluation of the NRS Programme

The 2006 evaluation has considered:

i) extent to which the NRS Programme has contributed to meeting Australian Government policy priorities to date, and

ii) capacity for enhanced achievement of Australian Government policy priorities by the NRS Programme, including delivery of conservation, economic, cultural and social benefits in the context of sustainable natural resource management at landscape, regional and national scales.

The evaluation has sought to address four broad issues:

- the extent to which the NRS Programme is achieving its objectives consistent with the overall objective of the NHT;
- **the appropriateness, effectiveness** and **efficiency** of the NRS Programme;
- the extent to which the NRS Programme links with the Indigenous Protected Areas (IPA) Programme and other relevant NHT initiatives for achieving policy priorities, including delivery of **conservation, economic, cultural** and **social benefits**; and
- the extent to which the NRS Programme contributes to achieving other Australian Government policy objectives.

The evaluation has involved a formal public call for submissions as well as specific consultation with State and Territory conservation agencies, non-government conservation organisations (NGOs), NRS Programme partners and other stakeholders. A total of 44 formal submissions to the evaluation were received.

Overall Assessment

Broad Findings from the Evaluation Process

The overall assessment of the 2006 evaluation is that the NRS Programme is consistent with and contributes to achieving to all three of the overarching objectives of the NHT: biodiversity conservation; sustainable use of natural resources; and community capacity building and institutional change.

Investments under the NRS Programme are primarily focused on strategic delivery of national biodiversity targets for the NRS. Property acquisitions assisted by the Programme lead to establishment and management of protected areas for the NRS. They contribute directly to maintenance of natural ecosystems and resources and to delivery of sustainable biodiversity and ecosystem services outcomes.

Implementation of the NRS Programme also contributes directly to community capacity building and institutional change by engaging governments, communities and the private sector for establishment and maintenance of the NRS, and resulting in biodiversity, economic and social benefits in national, regional and local contexts.

The NRS Programme is a flagship programme uniquely positioned to stimulate biodiversity conservation through reserve establishment and management in both government and non-government sectors across Australia. It has been very effective in raising awareness across all levels, government and non-government, about the importance of achieving a comprehensive, adequate and representative (CAR) system of reserves in Australia as a means of conserving biodiversity.

The NRS Programme has been demonstrated to be an important and cost-effective component of the Australian Government's efforts to conserve Australia's unique biodiversity. The Programme has invested $80 million in the establishment of an additional 20 million hectares for the NRS since 1996–97. Programme-assisted additions to the NRS involve 271 properties. They encompass more than 5 million hectares of protected areas established by State and Territory Governments, 1.2 million hectares by non-government conservation organisations (NGOs) and 13 million hectares by Indigenous land owners. Together, these strategic additions have improved biodiversity conservation in more than 50 of Australia's 85 bioregions, bringing the total land area in the NRS to about 80 million hectares, or 10.52% of the area of the continent.

As well as acknowledging these valuable lands added to the NRS through the Programme, submissions to the evaluation have also acknowledged the important work undertaken in collaboration with State and Territory conservation agencies to develop national positions on the policy and scientific underpinnings of the NRS as well as input into international protected area initiatives.

Broad levels of support for the NRS Programme

The overwhelming majority of submissions either explicitly or implicitly acknowledge that the NRS Programme has strong support from a wide array of government and non-government organisations. It is recognised by scientists and policy makers as a central element of Australian Government delivery on its commitments with regard to biodiversity conservation and national statutory and policy obligations related to those commitments.

Initially the NRS Programme was focused on collaborating with State and Territory conservation agencies to acquire lands with priority conservation values for inclusion in the public reserve system. In more recent years the focus has shifted to engaging with the growing non-government sector to achieve on-ground biodiversity conservation outcomes that enhance the NRS as well as to leverage private philanthropy towards achieving biodiversity conservation goals.

To this end, the emergence in recent times of strengthening partnerships for the NRS Programme with NGOs and local government is seen as an important development providing opportunities to leverage significant acquisitions and arrangements for on-going management which complement the publicly-owned reserve system.

Engagement of Indigenous Land Owners in the NRS Programme

Whilst expenditure has been focused on acquisition, the Programme also provides for encouraging the voluntary contribution of Indigenous-owned lands to be managed as part of the NRS in the form of Indigenous Protected Areas (IPAs). 13.8 million hectares in 19 properties covering some 66% of the land with high biodiversity values added to the NRS under the Programme has been in the form of IPAs. The IPA Programme is the subject of a separate, concurrent evaluation.

Achieving Best Practice Management Outcomes

The NRS Programme has a further explicit objective to progress the formulation and consistent application of best practice management principles for protected areas in Australia. This objective is set out in *Directions for the National Reserve System – A Partnership Approach*, approved by the Natural Resource Management Ministerial Council in May 2005. Commonwealth and State and Territory officials are drafting the framework for achieving this objective.

Major opportunities exist to enhance linkages with national and regional Natural Resource Management (NRM) programmes to achieve better integration between on-reserve and off-reserve land management, tapping regional land management capacity and achieving a balance between national and regional priorities.

It is generally accepted that securing remnant areas of land with high biodiversity values in protective management is many times more cost effective than investments in ecosystem repair.

Future Funding Directions for the NRS Programme

All jurisdictions point to significant positive outcomes for biodiversity conservation from the national framework, specific acquisitions and the policy forum provided by the NRS Programme. The evidence suggests that rather than replacing expenditure by the States and Territories, the Programme has stimulated significant additional expenditure that has been strategically focussed into the national framework and delivery of national biodiversity outcomes.

It is convincingly argued in many submissions that, as an efficient mechanism for delivering the biodiversity outcomes sought by Government, the NRS Programme warrants investment of a higher proportion of the total government funding allocated to biodiversity conservation than it has received in recent years.

Increases in the overall level of funding, and adjustments to the differential formula for allocation of Programme funds between government and non-government proponents, have the potential to increase its effectiveness and create greater certainty about the Government's commitment to the future of the Programme.

Additional targeted funding from the Australian Government will be required if the Directions Statement target of 80% representation of regional ecosystems in the NRS by 2010–2015 is to be met.

Strengthening the Public and Private Land Management Capacity for the NRS

Support provided by the NRS Programme has usefully drawn the non-government sector, including Indigenous landholders, into the business of managing land to protect and enhance biodiversity values. This coupled with covenanting initiatives has extended the land available for protective management and added

flexibility in terms of management approaches. The security of some tenures, and the long term capacity of some management regimes, have been questioned and warrant further consideration.

While non-government reserves represent an important component of the NRS, the public reserve system which is statutorily defined and managed by professional agency staff with specialist support, within a robust regulatory framework, in most instances offers the best prospect for securing long-term conservation outcomes.

IPAs have made a major contribution to the expansion of the NRS and have enabled the incorporation of lands that would otherwise have been unavailable for reservation. Capacity building support and links to initiatives to address Indigenous disadvantage will be crucial if biodiversity conservation outcomes are to be achieved on IPAs.

On-going management of the land represents the greatest cost and requires the most substantial commitment if a world-class NRS is to be established and sustained. State and Territory conservation agencies collectively have land management budgets approaching $1 billion per year and it takes only five years or so for management costs to exceed the cost of purchasing the land in many instances.

In recognition of the scale of the commitment required for on-going management and the high dividend gained from the Australian Government's initial investment, all NRS Programme acquisitions should be funded by the Australian Government for at least two-thirds of the total acquisition and establishment cost. This single funding formula should be extended to proposals by State and Territory agencies and consistently applied to all proposals being assessed on their contribution to the NRS.

Achieving Strategic Collaboration to Enhance the NRS

Greater efforts should be made to achieve effective collaboration with other NRM bodies and programmes with increased emphasis on bioregional planning and achievement of biodiversity outcomes regardless of land tenure.

Although many NRS Programme acquisitions and their on-going management are generally not likely to produce significant economic activity, measurable social, cultural and economic benefits may be identifiable in a regional context, especially in remote rangeland situations where a number of acquisitions are making significant contributions through their management and visitation rates to local and regional economies in Australia.

A robust management effectiveness framework should be devised for consistent application in all Australian jurisdictions. The Australian Government should take a lead role, facilitating the development of the framework, requiring its application in all reserves supported by NRS Programme funding and initiating a rolling schedule of audits to verify delivery of biodiversity results over time.

Recommendations

6.1 Achievements and status of the Programme

6.1.1 The NRS Programme has been a very successful programme in raising awareness among both government and non-government players about the importance of achieving a CAR system of reserves that encompasses both public and private land and should be further supported for maintaining this activity.

6.1.2 The NRS Programme should be reinstated as a national programme focused on accelerating the reservation and protective management of bioregionally significant lands.

6.1.3 Consideration should be given to re-badging the NRS Programme to more clearly identify its role in delivery of the NRS in a national context.

6.2 Programme Funding

6.2.1 NRS Programme funding levels should be reviewed. Additional targeted funding from the Australian Government will be required if the Directions Statement target of 80% representation of regional ecosystems in the NRS by 2010–2015 is to be met.

6.2.2 NRS Programme acquisitions should be routinely funded by the Australian Government for at least two thirds of the total acquisition and establishment costs with flexibility to take advantage of three-way projects between a private proponent, a State or Territory Government and the Australian Government when opportunities arise.

6.3 Management Effectiveness

6.3.1 The application of national standards for protected area management should be given high priority and supported with strategic investment of NRS Programme funds.

6.3.2 In order to maximise their consistent application nationally, monitoring, evaluation and reporting mechanisms devised to give effect to the management effectiveness framework should be simple, robust, focused on outputs and outcomes rather than inputs, and if possible, should be accredited to an appropriate Australian Standard.

6.3.3 Within the management effectiveness regime adopted there should be provision for rolling audits of NRS reserves with at least 30% of the reserves audited every 5 years.

6.4 Assessment Criteria

6.4.1 The Comprehensiveness, Adequacy and Representativeness (CAR) criteria should continue to be used for the purpose of planning and assessing acquisition proposals by the NRS Programme.

6.4.2 The CAR criteria should be more clearly articulated and communicated, especially to explain the scope and components of the Adequacy criterion so that resilience and connectivity elements are addressed. Adequacy of the NRS and its assessment should continue to be improved as indicated in the Directions Statement.

6.4.3 Assessment of all NRS Programme proposals should be on their merits with respect to the principles set out in the 1999 ANZECC *Australian Guidelines for Establishing the National Reserve System* or later versions and the definitions and principles outlined in the *Directions for the National Reserve System – A Partnership Approach*, including social and economic impacts.

6.5 Integrated Policy and Landscape Management.

6.5.1 NRS Programme staff should formalise regular dialogue with relevant NHT and DEH programmes and activities (e.g. EPBC processes) and this should include exploring synergy between the NRS Programme priorities and the capacity of regional organisations to assist with NRS Programme implementation.

6.5.2 NRS Programme and State and Territory programme partners should enhance and recognise their collaborative policy and flagship role in protected area establishment and management. This would include improving scientific and technical information and data sharing.

6.5.3 The NRS Programme should explore strategic partnerships, involving State and Territory conservation agencies, along with key conservation NGOs, local government and key industry groups for the implementation of the Directions Statement and NRS Programme priority targets.

6.5.4 The NRS Programme should maintain its emphasis both on the primacy of the public reserve system via partnerships with State and Territory agencies for securing conservation outcomes for the NRS, and on the emerging importance of partnerships with Indigenous, NGO and other private land holders to complement and extend these outcomes where possible.

6.5.5 In this context, the NRS Programme should continue to seek and support mechanisms for achieving conservation outcomes on private lands, such as provided by the Protected Areas on Private Land (PAPL) Project, and to further adapt and evolve these mechanisms as necessary to achieve the desired biodiversity outcomes.

6.6 Protection Mechanisms

6.6.1 NRS Programme funds should be allocated towards acquisitions that provide the highest possible order of protection and sustainable management.

6.7 Communication

6.7.1 Consistent with the Directions Statement, the NRS Programme should continue to develop and implement its communications strategy and support activities for maintaining high levels of community awareness of, and effective community involvement in, the NRS and NRS Programme.

6.7.2 The NRS Programme Communications Strategy should include regular updating of the NRS Programme website and publicity detailing the achievements of the Programme.

6.7.3 The NRS Programme should encourage and, where necessary, fund research and provide information on the costs and benefits to local and regional communities of protected areas throughout Australia.

6.8 NRS Programme coverage of aquatic ecosystems

6.8.1 The scope of the NRS with respect to freshwater ecosystems should be clarified and given priority so that the obligations in the Directions Statement can be fulfilled.

6.9 Indigenous Protected Areas

6.9.1 The major contribution to the expansion of the NRS made by Indigenous Protected Areas (IPAs) should be clearly communicated.

6.9.2 The NRS Programme should facilitate engagement of State and Territory agencies and other potential partners with IPA owners and managers so that their contribution to the NRS is recognised and supported.

6.10 Programme Management

6.10.1 The NRS Programme should be staffed and structured so that appropriate attention can be given to all three strands of Programme activity: facilitating bioregional planning; strategic acquisitions and land agreements; and the development and consistent application of high standards of on-going management of reserves.

6.10.2 Communications with prospective proponents and key stakeholders should be improved to enhance the effectiveness of the NRS Programme.

6.10.3 An annual timetable for receiving and processing proposals should be implemented to enhance NRS Programme efficiency while recognising the need for flexibility to deal with urgent proposals if they arise.

6.10.4 There should be clear communication of reasons for decisions and feedback to proponents on assessment of applications for funding to maintain the transparency of the NRS Programme.

6.10.5 NRS Programme objectives should be precisely articulated to specify the place of the NRS Programme in the Directions Statement. These objectives should be embodied in a Strategic Plan which drives the NRS Programme in its next phase of operation.

1. Introduction

Photo credits ***Left:*** *Senna flowering on dunes at Cravens Peak Nature Reserve QLD, Australian Bush Heritage Fund – Nick Rains.* ***Top:*** *Wetland at Mornington Nature Reserve WA, Australian Wildlife Conservancy – Ecopix.* ***Middle:*** *Gidgee at Cravens Peak Nature Reserve QLD – Nick Rains.* ***Bottom:*** *Len and Jo Rule, Cravens Peak Nature Reserve QLD – Nick Rains.*

1. Introduction

The National Reserve System (NRS) Programme has been implemented since 1996–97 as one of five capital programmes under the Natural Heritage Trust (NHT). Establishment of the NRS Programme followed implementation of the former National Reserves System Cooperative Programme (NRSCP) between 1992 and 1995.

An independent evaluation of the NRS Programme was initiated in 2006 by the Australian Government to inform ongoing development of policy frameworks for implementation of current and future natural resource management initiatives. Terms of Reference for the evaluation are in **Attachment 1**.

The 2006 evaluation of the NRS Programme is consistent with other national evaluations of the NHT and the National Action Plan for Salinity and Water Quality (NAP) undertaken in 2005–06 following agreement by the Natural Heritage Ministerial Board. These evaluations included:

1. Significant invasive species (weeds) outcomes of regional investment;
2. Biodiversity outcomes of regional investment;
3. Salinity outcomes of regional investment;
4. Sustainable agriculture outcomes of regional investment;
5. Coastal, estuarine and marine outcomes of regional investment;
6. Current governance arrangements to support regional investment;
7. The impact of the national natural resource management facilitator network;
8. The effectiveness of bilateral agreements between the Australian Government and State and Territory governments for the regional component of the extension of the Natural Heritage Trust;
9. The Australian Government Envirofund; and
10. The National Investment Stream of the Natural Heritage Trust.

The purpose of these evaluations was to assess the NHT and NAP national programmes to see what is working well and what improvements can be made to make them more effective. The 2006 review of the NRS Programme will contribute to this assessment.

The 2006 review will also inform ongoing implementation of the Directions Statement: *Directions for the National Reserve System – A Partnership Approach*, approved by the Natural Resource Management Ministerial Council in May 2005.

The Natural Heritage Trust

The Natural Heritage Trust (NHT) was established by the Australian Government in 1996–97 with funding of $1.7 billion over 5 years to help restore and conserve Australia's environment and natural resources. In 2001, the Government announced a further 5-year extension of the NHT, with funding of $1.0 billion. A second extension of the Trust to 2007–08 was announced In 2004 with additional funding of $0.3 billion.

In 2002, the Implementation Framework for the extension to the NHT was endorsed by the Natural Resource Management Ministerial Council. The Framework sets out the strategic basis for investment against the NHT's objectives at national, regional and local levels. It also provides the basis for matching contributions from the states and territories.

The NHT Implementation Framework has three overarching objectives:

1. **Biodiversity Conservation** – the conservation of Australia's biodiversity through the protection and restoration of terrestrial, freshwater, estuarine and marine ecosystems and habitat for native plants and animals.

2. **Sustainable Use of Natural Resources** – the sustainable use and management of Australia's land, water and marine resources to maintain and improve the productivity and profitability of resource based industries.
3. **Community Capacity Building and Institutional Change** – support for individuals, landholders, industry and communities with skills, knowledge, information and institutional frameworks to promote biodiversity conservation and sustainable resource use and management.

Priorities and principles for NHT funding are identified under a Strategic Plan for National Investment. The Strategic Plan defines the scope of NHT investment through the following ten areas of priority activity.

i) protecting and restoring the habitat of threatened species, threatened ecological communities and migratory birds;

ii) reversing the long-term decline in the extent and quality of Australia's native vegetation;

iii) protecting and restoring significant freshwater, marine and estuarine ecosystems;

iv) preventing or controlling the introduction and spread of feral animals, aquatic pests, weeds and other biological threats to biodiversity;

v) establishing and effectively managing a comprehensive, adequate and representative system of protected areas;

vi) improving the condition of natural resources that underpins the sustainability and productivity of resource based industries;

vii) securing access to natural resources for sustainable productive use;

viii) encouraging the development of sustainable and profitable management systems for application by land-holders and other natural resource managers and users;

ix) providing land-holders, community groups and other natural resource managers with understanding and skills to contribute to biodiversity conservation and sustainable natural resource management; and

x) establishing institutional and organisational frameworks that promote conservation and ecologically sustainable use and management of natural resources.

The NHT invests via programs that deliver the resource condition outcomes sought through Trust investment. These include the Landcare, Bushcare, Rivercare and Coastcare Programmes. The Bushcare Programme focuses on activities that contribute to conserving and restoring habitat for Australia's unique native flora and fauna.

The NRS Programme invests NHT funds for delivery of the following priority activity under Bushcare:

v) establishing and effectively managing a comprehensive, adequate and representative system of terrestrial protected areas.

In addition, the NRS Programme contributes, in conjunction with other Trust programs, to the following priority activities:

i) protecting and restoring terrestrial threatened species habitat and threatened ecological communities, and migratory birds;

ix) providing landholders, community groups and other natural resource managers with understanding and skills to contribute to biodiversity conservation and sustainable natural resource management; and

x) establishing institutional and organisational frameworks that promote conservation and ecologically sustainable use and management of natural resources.

Establishment of the NRS Programme under the NHT also meets the requirement under the *National Strategy for the Conservation of Australia's Biological Diversity* to establish a comprehensive, adequate and representative system of terrestrial protected areas (Objective 1.4). There is a separate programme to establish marine protected areas.

2. Background

Photo credits ***Left:*** *Cravens Peak Nature Reserve QLD, Australian Bush Heritage Fund – Nick Rains.* ***Top:*** *Boolcoomatta Nature Reserve SA, Australian Bush Heritage Fund – Wayne Lawler.* ***Middle:*** *Rock Pinnacle at Boolcoomatta Nature Reserve SA – Wayne Lawler.* ***Bottom:*** *Risdon Cove IPA TAS – Department of the Environment and Heritage.*

2. Background

2.1 Australia's Biodiversity

Australia's ancient landscapes have been evolving over more than 40 million years in isolation from the rest of the world. This isolation combined with infertile soils supports a unique assemblage of plants and animals, 80% of which are found nowhere else. Variations within the species assemblage range from 45% of land bird species to 93% of frog species found only in Australia.

State of the Environment (SoE) reports from various jurisdictions have periodically highlighted continuing loss of Australia's biological diversity with around 70% of all native vegetation either removed or significantly modified by human activity since 1788. The value of the remnant vegetation as habitat for animals has been further eroded by the introduction of feral predators and competitors. Up to 25% of native species in some groups (e.g. marsupials) have become extinct or are threatened with extinction.

The rate and extent of the decline in biological diversity, the well documented impact of long-term agricultural and pastoral activities, along with growing understanding of the cost of rehabilitating habitats to a point that can sustain threatened species and ecological processes have produced a wide acceptance that reservation of land is among the most cost effective means of protecting biological diversity. The NRS Programme is founded in this context.

2.2 The NRS Programme

The National Reserve System (NRS) is Australia's system of terrestrial protected areas. The NRS represents the outcome of the collective efforts of the Australian Government, State and Territory Governments, Conservation Non-Government Organisations (NGOs), and Indigenous and non-Indigenous landholders to achieve an Australian system of terrestrial protected areas. The NRS makes a major contribution to conservation of Australia's native biodiversity.

The National Reserve System (NRS) Programme was established by the Australian Government to assist with the establishment and maintenance of the NRS as a comprehensive, adequate and representative (CAR) system of terrestrial reserves in Australia.

2.3 Objectives and key funding areas

The objectives of the NRS Programme are—through working with all levels of government, industry and the community—to:

- establish and manage new ecologically-significant protected areas for addition to Australia's terrestrial NRS;
- provide incentives for Indigenous people to participate in the NRS through voluntary declaration of protected areas on their lands and support for greater involvement of Indigenous people in the management of existing statutory protected areas;
- provide incentives for landholders (both private landholders and leaseholders) to strategically enhance the NRS; and
- develop and implement best practice standards for the management of the NRS.

Funding for the NRS Programme was approved in 1996–97 for five years under the first phase of the NHT. NRS Programme funding was extended for a further five years to 2007–08, under the second phase of the NHT.

Key funding areas targeted by the NRS Programme include:

- land acquisition by State and Territory conservation agencies;
- land acquisition for management by community groups;
- voluntary establishment of protected areas on private land;
- voluntary establishment of Indigenous Protected Areas[1]; and
- development and implementation of best practice protected area management.

2.4 NRS Programme Outcomes

The National Outcome delivered by the NRS Programme under the National Investment Stream (NIS) of the NHT is:

12. *A comprehensive, adequate and representative National Reserve System, including support for the Indigenous Protected Areas Programme progressed.*

This is achieved through the following national activities and outcomes of the NRS Programme:

1. The cooperative development by the Commonwealth and States/Territories of a strategic land acquisition programme which focuses on those ecosystems and biodiversity elements that are unrepresented or under represented in the reserve system, using the *Interim Biogeographic Regionalisation for Australia (IBRA) and the Australian Guidelines for Establishing the National Reserve System*, endorsed by the Australian and New Zealand Environment and Conservation Council (ANZECC) as part of the framework for prioritising additions to the NRS.
2. A significant increase in the area reserved that contributes to a comprehensive, adequate and representative (CAR) system of protected areas, with a focus on those regions where ecosystem representation is lowest. Priorities will be reviewed from time to time in consultation with the protected area agency in each jurisdiction.
3. The voluntary establishment of protected areas which are dedicated to long-term conservation across a range of land tenures including lands owned and/or managed by Indigenous people and other private lands, particularly where acquisition through purchase is not feasible.
4. Plans of management, or other agreed management guidelines, prepared for all properties acquired with the assistance of the NRS Programme.
5. Integration of biodiversity conservation, including NRS objectives into regional/catchment strategies.
6. The establishment of protected areas on private land managed primarily for their long-term biodiversity conservation.
7. Improved knowledge of ecosystem1 distribution, components and threatening processes in high priority or poorly-known regions identified through IBRA, endorsed by ANZECC as a basis for identifying deficiencies in the existing NRS.
8. The adoption by nature conservation agencies of nationally-consistent principles and best practice standards for the improved management of protected areas.
9. Improved public awareness of the role and value of protected areas, and of implementing a range of conservation management measures to protect biodiversity.

1 The Indigenous Protected Area Programme is the subject of a separate evaluation.

2.5 Previous Reviews

The precursor to the NRS Programme, the National Reserves System Cooperative Programme (NRSCP), was evaluated by Robert Boden and Associates in December 1995 (Boden and Breckwoldt 1995). Recommendations for improvements to the NRSCP included: additional funding, support with establishment costs of reserves, the development of partnerships with private landholders and support for the developing Indigenous Protected Areas Programme.

Following establishment of the NRS Programme under the NHT in 1996–97, a mid-term review of the NRS Programme was undertaken by the Centre for Environmental Management, University of Ballarat, in 1999 (Centre for Environmental Management 1999).

The 1999 mid-term review examined the following key areas:

- effectiveness of strategic acquisition and covenanting of land for permanent inclusion in the NRS;
- extent to which protected areas are managed in accordance with IUCN criteria and appropriate management plans;
- changes in the comprehensiveness, adequateness and representativeness of the reserve system under NRS Programme projects;
- extent of current knowledge regarding ecosystems in high priority IBRA regions;
- progress towards the development and adoption of ANZECC best management standards for protected areas; and
- extent to which landholders and other interested parties have been made aware of and encouraged to contribute and be involved in the NRS Programme.

The 1999 mid-term review drew very positive conclusions about most aspects of the NRS Programme. Since that time the strategic acquisition of land by the NRS Programme has continued with a focus on ecosystems and biodiversity elements under-represented in the reserve system.

Recommendations flowing from the mid-term review, forty three in all, covered a wide range of issues including: increased funding; support for the 2:1 funding formula; recognition of the establishment costs borne by reserve owners and managers; the need for covenants to provide enhanced security for non-statutory reserves; the development of Protected Area Networks; support for integrated landscape management initiatives and implementation of best practice management. Recommendations of the mid-term review are listed in full in **Attachment 4**.

The previous reviews of the NRSCP and the NRS Programme and their recommendations and outcomes were important considerations for developing a new policy framework for the NRS, *Directions for the National Reserve System – A Partnership Approach* (the Directions Statement), approved by the Natural Resource Management Ministerial Council in May 2005.

2.6 Directions Statement

The Directions Statement is a policy framework for the future development of the terrestrial component of Australia's NRS. It was prepared to assist government agencies, non-government organisations and the community in the on-going development of the NRS, and to assist stakeholders in the understanding of this process (Natural Resource Management Ministerial Council 2005).

The NRS Action Plan Taskforce, initially established by the Australian and New Zealand Environment and Conservation Council (ANZECC) worked under the Natural Resource Management Ministerial Council to develop the Directions Statement.

The Directions Statement notes five long-standing issues around the development and implementation of the NRS:

(a) the lack of clear, agreed and measurable national targets for the NRS;

(b) the lack of clear and agreed national guidelines as to what types of protected areas comprise the NRS;

(c) the patchy and incomplete nature of the ecosystem-scale map coverage for Australia required to implement the NRS;

(d) the lack of an agreed national plan of action for the NRS; and

(e) funding for acquisition and management.

The need for clear criteria and mapping to better incorporate freshwater values in the NRS is noted as an emerging issue along with the need to develop effective protection mechanisms, particularly for wetlands in multi-tenure situations.

Submissions to the Directions Statement process also highlighted the importance of improving linkages between the NRS and broader landscape conservation planning initiatives, the value of partnership approaches and the importance of Indigenous Protected Areas.

The Directions Statement enunciates a total of 38 Directions (see **Attachment 5**) to be applied as a collective effort by the signatory jurisdictions to progress the NRS by addressing these and associated issues.

The agreed Directions identified in the Statement outline a common approach to strategic planning and design, establishment and management of a comprehensive, adequate and representative NRS in future years. They emphasise the important role of partnerships between governments and with NGOs for development of the NRS.

The Directions acknowledge that the NRS cannot be established entirely on public lands. They identify a significant role for the private sector to play in establishment and management of protected areas for the NRS. They also outline the important role of Indigenous lands, and the need to engage Indigenous communities in planning and management of protected areas on Indigenous lands for the NRS.

As well, the Directions acknowledge that conservation objectives are best achieved through an integrated approach at the landscape level. They highlight the need to establish and manage protected areas for the NRS within an integrated landscape context (Natural Resource Management Ministerial Council 2005).

3. The 2006 Evalution

Photo credits ***Left:*** *Anindilyakwa IPA NT – Steve Strike.* ***Top:*** *Anindilyakwa IPA NT – Steve Strike.* ***Middle:*** *Shell, Anindilyakwa IPA NT – Steve Strike.* ***Bottom:*** *Walter Amagula, Anindilyakwa IPA NT – Steve Strike.*

3. The 2006 Evaluation

3.1 Evaluation Purpose

The 2006 evaluation has been initiated to consider:

i) the extent to which the NRS Programme has contributed to meeting Australian Government policy priorities to date; and

ii) capacity for enhanced achievement of Australian Government policy priorities by the NRS Programme, including delivery of conservation, economic, cultural and social benefits in the context of sustainable natural resource management at landscape, regional and national scales.

The evaluation has sought to address four broad issues:

- the extent to which the NRS Programme is achieving its objectives consistent with the overall objective of the NHT;
- the **appropriateness**, **effectiveness** and **efficiency** of the NRS Programme;
- the extent to which the NRS Programme links with the Indigenous Protected Areas (IPA) Programme and other relevant NHT initiatives for achieving policy priorities, including delivery of **conservation**, **economic**, **cultural** and **social benefits**; and
- the extent to which the NRS Programme contributes to achieving other Australian Government policy objectives.

Terms of Reference for the evaluation are in **Attachment 1**.

3.2 Scope

The possible scope of the 2006 evaluation has been outlined in the form of questions formulated under the three key components identified: appropriateness, effectiveness and efficiency. While submissions have been invited on any issues people consider relevant, the questions were provided to give an indication of the scope of the review and provide some reference points for people preparing submissions. Questions addressing the possible scope of the evaluation are in **Attachment 1**.

3.3 Evaluation Process

The evaluation of the NRS Programme required a combination of desktop study, wide consultation, targeted workshop meetings and systematic analysis of issues identified.

3.3.1 Desktop Study

A desktop study was initiated covering programme activities, records, outcomes, financial and programme management, performance information, publicity and reporting.

3.3.2 Consultation

A notice of the NRS Programme evaluation was published in *The Weekend Australian* newspaper on 21–22 January 2006 incorporating a general call for submissions, with a deadline for submissions of Friday 24 February 2006.

Letters were sent to some 150 NRS Programme partners and key stakeholders before the end of January 2006, inviting submissions and attaching a document setting out the scope of the review with the set of questions related to each of the 'appropriateness', 'effectiveness' and 'efficiency' parameters referred to in the Terms of Reference for the work.

Notice of the review, contact details and scoping questions were also published on the DEH website on Friday 20 January 2006.

Apart from responding to inquiries and requests for information, follow-up contacts were made by phone and/or email with key personnel representing Programme partners and stakeholders. Telephone and email discussions provided preliminary input to the review and also sought to encourage the preparation of relevant submissions.

Case studies exemplifying both positive and negative experiences of the Programme were identified from discussions with Programme staff and early dialogue with Programme partners and stakeholders. The case studies undertaken involved collation of more detailed documentation relevant to the evaluation questions to assist with analysis of key issues and illustration of key findings in the review report.

3.3.3 Meetings

Face–to–face consultation sessions were held with Programme staff, heads of agencies responsible for management of reserves in the States and Territories, and members of the NRS Task Group to give them an opportunity to present submissions and interact with others making input to the Evaluation.

3.3.4 Issues Analysis

All submissions to the Review were summarised and issues raised were systematically collated and analysed. A summary of issues raised in submissions is included in **Attachment 3**.

3.4 Economics Perspective

An economics assessment of the NRS Programme as part of the evaluation was undertaken by Syneca Consulting Pty Ltd. The economics assessment focused particularly on aspects of efficiency, though some of the findings are relevant to effectiveness as well.

Efficiency is concerned with inputs and outputs. The outputs of the NRS Programme are difficult to quantify in an objective sense, since it is ultimately the comprehensiveness, adequacy and representativeness of the ecosystems included in the NRS that determines the value rather than, say, a simple measure such as the area of lands involved. Available documentation and previous case studies of economic (including tourism-related), cultural and social benefits relevant and attributable to the NRS Programme have been reviewed.

3.5 Report preparation

A report on progress and a preliminary outline of the structure of the evaluation report was presented to the Steering Committee at the end of February 2006. Findings drawn from the review process were then outlined in a draft report along with recommendations for improvements to the Programme. The draft report was submitted to the Steering Committee on 16 March 2006. The report was subsequently further refined and finalised in consultation with the Steering Committee.

4. Results

Photo credits ***Left:*** *Fitzroy Bluff Falls, Mornington Nature Reserve WA, Australian Wildlife Conservancy – Ecopix.* ***Top:*** *Fitzroy Bluff, Mornington Nature Reserve WA – Ecopix.* ***Middle:*** *Wedge-tailed eagle.* ***Bottom:*** *Desert plant, Cravens Peak Nature Reserve QLD, Australian Bush Heritage Fund – Nick Rains.*

4. Results

4.1 Appropriateness of the Programme as a mechanism for achieving Australian Government policies and priorities

4.1.1 Policy Alignment and Consistency

The policy context for the NRS Programme is defined under the NHT and its extension to 2007-08. Earlier contexts for the NRS Programme and its predecessor, the NRSCP, were also informed by *the National Forest Policy Statement (Commonwealth of Australia 1992)* and subsequently the *National Strategy for the Conservation of Australia's Biological Diversity (1996).*

The current policy context of the NRS Programme encompasses the *Directions for the National Reserve System – A Partnership Approach* approved by the National Resource Management Ministerial Council in 2005. Other relevant components include the Australian Government's Natural Resource Management processes, the *National Objectives and Targets for Biodiversity Conservation (2001–2005)* (NOTS), and the N*ational Framework for the Management and Monitoring of Australia's Native Vegetation (2001).*

The Directions Statement represents the collective efforts of State and Territory Governments and the Commonwealth over several years to develop a common policy approach on key issues and directions for the future of the NRS. The Directions Statement outlines the agreed policy framework for future development of the terrestrial component of the NRS. It also helps guide aspects of the delivery of the NRS Programme.

The *National Framework for the Management and Monitoring of Australia's Native Vegetation* (2001) (NOTs) recognises the establishment of reserves which are managed for conservation as a component of the framework. The NOTs document also seeks permanent protection of a representative sample of ecosystems from each IBRA bioregion within the NRS or other appropriate management regime where it can be managed for conservation. The NRS Programme contributes directly to these policies.

The NRS Programme also contributes to the National Strategy for Ecologically Sustainable Development, the National NRM Capacity Building Framework and the National NRM Monitoring and Evaluation (M&E) Framework. In addition, the NRS Programme is aligned with conservation of matters of National Environmental Significance (NES) identified under the *Environment Protection and Biodiversity Conservation Act 1999*. These include threatened species, species covered in schedules to international agreements and wetlands of international importance listed under the Ramsar convention.

Within the limits imposed by available resources and also external factors beyond the control of the NRS Programme, most submissions suggest that the Programme has achieved outcomes which address these policies and priorities.

In the context of the NHT, the NRS Programme is consistent with and contributes to achieving to all three of the overarching objectives of the Trust: biodiversity conservation; sustainable use of natural resources; and community capacity building and institutional change.

Investments under the NRS Programme are primarily focused on strategic delivery of national biodiversity targets for the NRS. Acquisitions under the Programme lead to establishment and management of protected areas for the NRS and contribute directly to maintenance of natural ecosystems and resources and delivery of sustainable biodiversity and ecosystem services outcomes. Implementation of the NRS Programme also

contributes directly to community capacity building and institutional change by engaging governments, communities and the private sector for establishment and maintenance of the NRS, and resulting in biodiversity, economic and social benefits in national, regional and local contexts.

4.1.2 Biodiversity Conservation

The objective of establishing a comprehensive, adequate and representative (CAR) NRS has been endorsed by successive Australian Governments. The principles to guide the development of the NRS have been set out in *Australian Guidelines for Establishing the National Reserve System* (ANZECC, 1999). The principles are enunciated as follows:

- The planning framework is provided by the Interim Biogeographic Regionalisation for Australia (IBRA).
- Comprehensiveness: The NRS will include the full range of regional ecosystems recognised at an appropriate scale within and across each bioregion. Increasing the comprehensiveness of the national protected area system, particularly in those IBRA regions where biodiversity is poorly conserved in the protected area system is the primary focus of the NRS Programme.
- Representativeness: Areas selected for inclusion in the NRS should reasonably reflect the intrinsic variability of the ecosystems they represent.
- Adequacy: The NRS will provide reservation of each ecosystem to the level necessary to provide ecological viability and integrity.
- Threat: Selection of priority additions to the NRS will be based primarily on principles of comprehensiveness, viability and vulnerability to loss. Priority will be given to the addition to the reserve system of ecosystems where there is a high risk of loss and which may foreclose future options for the conservation of biodiversity within the region.
- Precautionary principle: The absence of scientific certainty is not a reason to postpone measures to establish protected areas which contribute to a comprehensive, adequate and representative NRS.
- Landscape context: The protected area system should maximise biodiversity conservation outcomes through the application of scientifically robust reserve design principles.
- Management: It is recognised that regional biodiversity conservation requires a mix of management strategies. These would include statutory protected areas and incentives that encourage voluntary partnerships for off-reserve conservation. Public and private protected areas would include covenanting arrangements, as well as conservation management measures and guidelines for ecologically sustainable land management.
- Decision making: Decision-making processes should effectively integrate both long-term and short-term environmental, economic, social and equity considerations. These Guidelines endorse the principle of 'Least cost', where an optimal reserve configuration can be established with minimal economic and social cost to the community.'

According to most submissions, the NRS Programme is an appropriate funding programme for biodiversity conservation because it specifically targets the ecosystems and IBRA regions under-represented in lands managed for conservation. It offers a high level of certainty that biodiversity values will be conserved long term, because of the statutory protection offered by the reserve category or appropriate covenants placed on land title, the commitment of professionally qualified staff to the management task and the operational framework provided by the approved plan of management.

Programme Achievements to date

NRS Programme achievements to 31 March 2006 have included investment of more than $80 million since 1996–97 to assist with acquisition of 271 properties for the NRS. In addition to public lands, the acquisitions include 19 Indigenous Protected Areas (IPAs) and 49 areas of non-government lands.

NRS Programme activities have assisted the acquisition of 20 million hectares of protected areas for the NRS over this period. This represents 25% of the total area of the NRS. Since 1996-97, more than 80% of the area added to the NRS has been assisted by the NRS Programme.

NRS Programme partnerships with State and Territory Governments have acquired more than 5 million hectares for protected areas, with conservation NGOs more than 1.2 million hectares and with Indigenous land owners more than 13 million hectares.

In terms of biodiversity outcomes, land additions to the NRS assisted by the NRS Programme, including property acquisitions and conservation management of Indigenous and private lands, have contributed to improved biodiversity protection in more than 50 of Australia's 85 IBRA bioregions.

The change over time in the number of IBRA bioregions in each percentage reservation category are summarised in Figures 4.1 and 4.2. These provide an indication of overall conservation gains achieved for the NRS; for example, the decrease from 26 to 16 bioregions in the <2% reservation category, between 1995 and 2005. The NRS Programme has played a major role in facilitating these gains. Its leadership role in coordinating the activities of the NRS Scientific Taskforce of the Australian and New Zealand Environment and Conservation Council (ANZECC) in establishing and implementing the scientific basis for the NRS, and its role in assisting with NRS property acquisitions meet strategic priorities under the CAR criteria and the NRS Guidelines (ANZECC 1999b) are key contributing factors for the successful development of the NRS.

Figure 4.1: Change in number of bioregions in <2% and >15% reservation classes

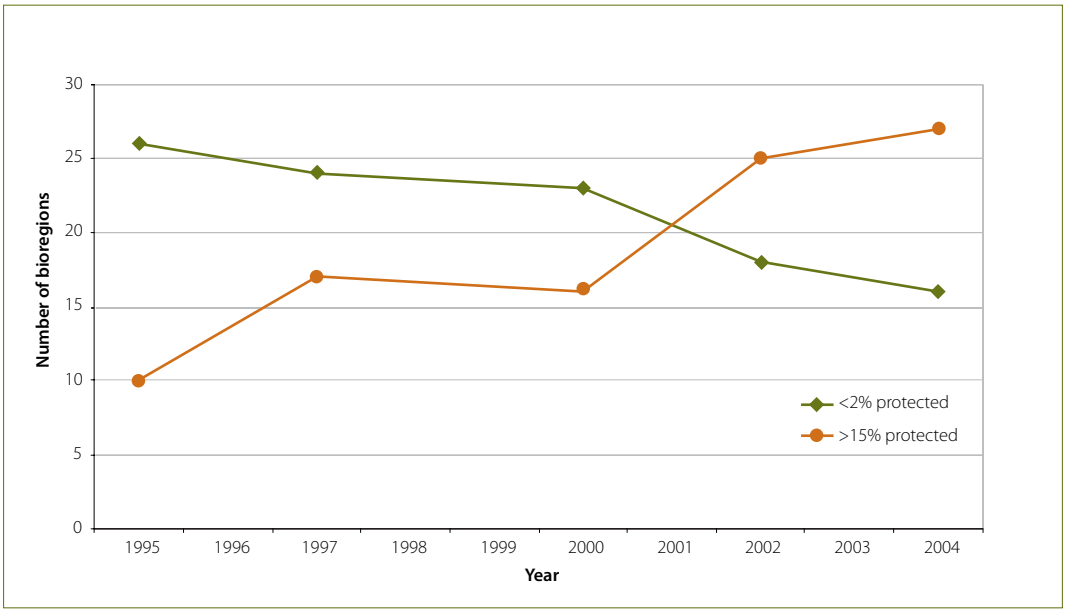
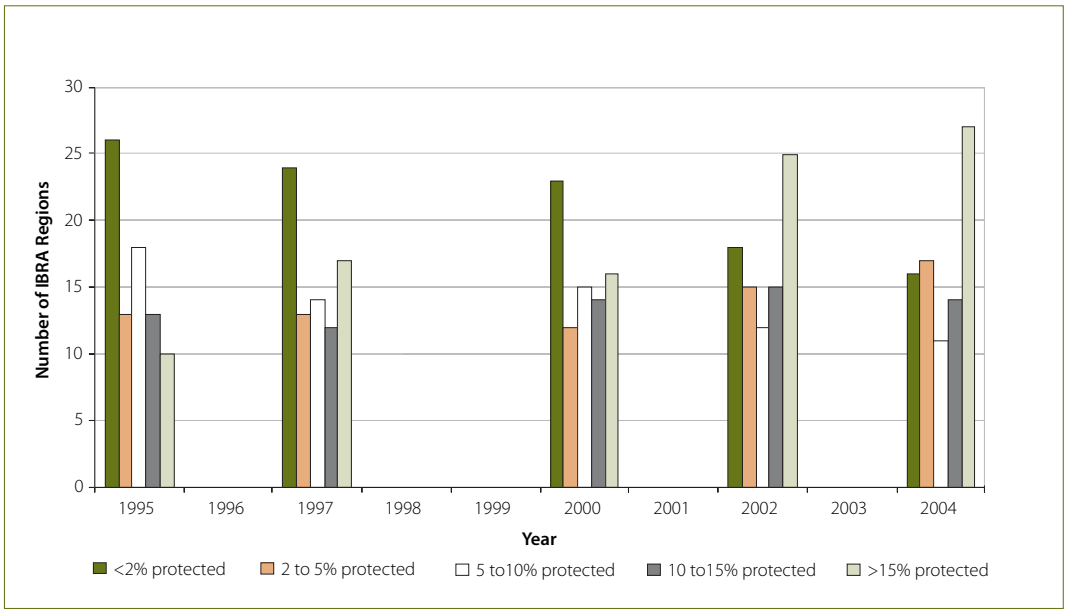


Figure 4.2: Change in number of bioregions in all % reservation classes



A more detailed summary of NRS Programme achievements to 31 March 2006 is provided in Boxes 4.1–4.5. Acquisitions by the Programme contributed a total of 252 properties and 6,421,966 hectares to the NRS to 31 March 2006. This represents 7.93% of the total 80.89 million hectares of protected areas that contributed to the NRS (CAPAD 2004).

Box 4.1: NRS Programme Acquisitions to 31 March 2006

The National Reserve System (NRS) Programme was established by the Australian Government in 1996–97 as part of the Natural Heritage Trust (NHT). The NRS Programme helps to buy, establish or maintain land for Australia's National Reserve System.

Land purchased	
Total area (hectares)	6,421,966
% of Australia's land area	
Purchased land	0.83%
Properties purchased	
Number of properties	252
Australian Government funding	
Property purchases	$68,142,065
Leveraged partner funding	
Purchases and establishment	$78,815,723

The NRS as a whole, including those areas acquired through the NRS Programme, constitutes an asset of substantial biological and economic value, with its 7,720 protected areas representing approximately 10.52% of Australia's land area (CAPAD 2004).

A snapshot of the NRS based on CAPAD 2004 data is included in Box 4.2.

Box 4.2: Australia's National Reserve System—A Snapshot*

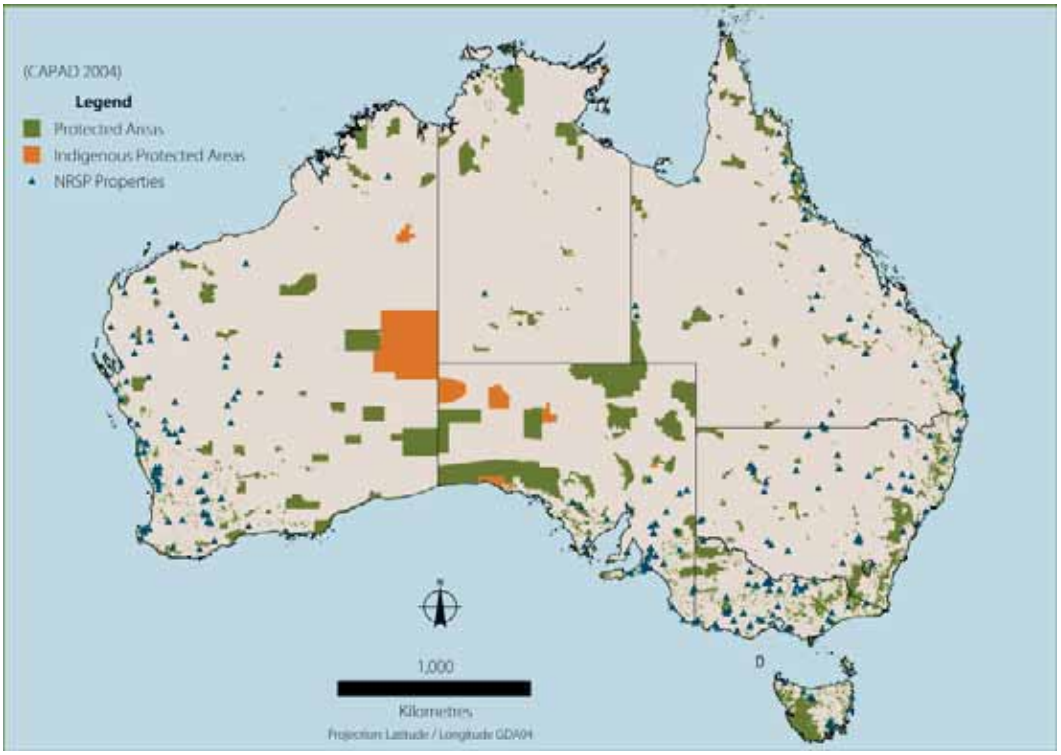
Australia's National Reserve System (NRS) is a nation-wide network of exceptional parcels of land where examples of our unique biodiversity are conserved for current and future generations. The NRS includes nine Protected Area systems, one in each of the States and Territories and an Australian Government system. The NRS includes over 50 types of crown reserves as well as protected areas established on Indigenous-owned land and private protected areas established under covenanting programmes. Management objectives for all types of reserves must meet the IUCN definition of a protected area to be part of the NRS.

A snapshot of the NRS based on CAPAD 2004* data is provided below:

Land in protected areas (hectares)	80.98 million
% of Australia's land area	10.52%
Number of protected areas	7,720

** CAPAD (2004) Collaborative Australian Protected Area Database, Department of the Environment and Heritage, Canberra.*

Map 1: The National Reserve System and location of NRS Programme properties



In addition to NRS Programme acquisitions, agreements have been entered into under the Indigenous Protected Areas (IPA) Programme for 19 properties for the NRS totalling 13.8 million hectares to 31 March 2006. Indigenous Protected Areas (IPAs) are located on land held by traditional Aboriginal owners, who have agreed to manage their country to protect its significant natural and cultural values as part of the NRS. A summary of IPAs that contribute to the NRS is provided in Box 4.3. The IPA Programme is the subject of a separate review.

Box 4.3: Indigenous Protected Areas in the NRS—31 March 2006

Indigenous Protected Areas (IPAs) are located on land held by the traditional Aboriginal owners who have agreed to manage their country as part of the National Reserve System (NRS) to protect its significant natural and cultural values. IPAs make a major contribution to Australia's NRS. Traditional knowledge and practices are combined with modern scientific methods for effective land management on IPAs. At the same time, IPAs deliver real benefits in health, education, employment and social cohesion for Indigenous communities.

Australian Government funds (NRS and IPA Programmes)	$13,684,100
Area (hectares)	13,799,114
Number of properties	19

Examples of biodiversity outcomes provided by IPAs for the NRS include:

Dhimurru IPA, north-east Arnhem Land, Northern Territory – 92,080 ha.

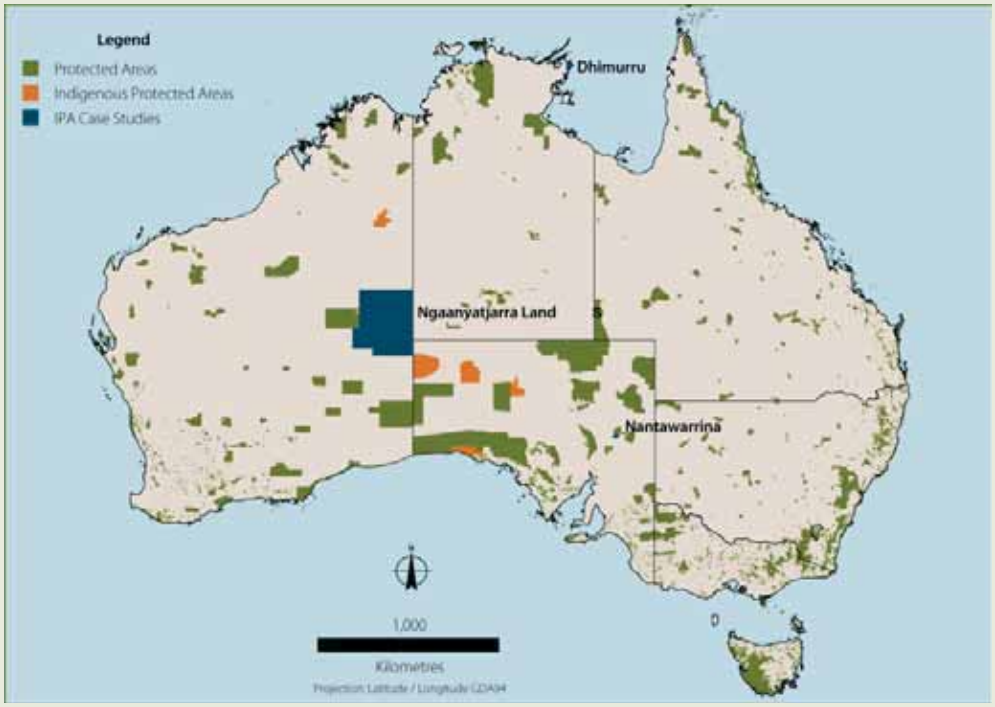
Dhimurru IPA provides significant representation of intact ecosystems of the Arnhem Coast Bioregion for the NRS. The Arnhem Coast Bioregion has a high priority for conservation planning. Its natural ecosystems support a high diversity of plants and animals, including species found only in the area. The IPA includes significant feeding habitat and breeding sites for sea birds and several threatened species of marine turtles. Its intact natural values are the result of millennia of sustainable traditional management by Indigenous communities. Management of the IPA is under IUCN category 5 (Protected Landscape/Seascape) and management activities are based on traditional practices as well as activities for controlling access, facilitating rehabilitation, assisting wildlife research and controlling weeds and feral animals.

Nantawarrina IPA, Flinders Lofty Block, South Australia – 58,000 ha.

Nantawarrina IPA contributes significant representation of four major arid ecosystems typical of the Flinders Lofty Block Bioregion for the NRS. These include low open woodlands, tall open shrublands, low chenopod shrublands and fringing woodlands of flood plains and creek lines. Past overgrazing and impacts due to weeds and feral animals have led to changes in the distribution and composition of the native vegetation, soil erosion in some areas, and impacts on populations of significant species such as Yellow-footed Rock Wallaby. These are addressed in management of the IPA by the Nepabunna Indigenous community. Zoning under IUCN categories 2, 4, 5 and 6 provides the basis for sustainable land management based on traditional practices. Targeted activities also aim to control threats such as weeds and feral goats, facilitate ecosystem restoration and provide linkages, refuges and movement corridors between native ecosystems. Protection and rehabilitation of biodiversity values of the IPA is a long-term project involving the Indigenous community and covering large tracts across the landscape.

Box 4.3 continued ....

Location of IPA examples



Ngaanyatjarra Lands IPA, Central Ranges, Great Sandy Desert, Gibson Desert and Great Victoria Desert, Western Australia – 9,812,900 ha.

The largest IPA declared to date, Ngaanyatjarra Lands IPA covers 9.8 million hectares and provides significant representation of four IBRA bioregions for the NRS, including 100% coverage of the Central Ranges Bioregion. Although declared under IUCN category 6 (Managed Resource Protected Area), the IPA is managed as a system of zones under different IUCN categories including category 3 (Natural Monument and Nature Conservation Areas) and category 4 (Habitat/Species Management Area) to balance land use and fragile areas. The IPA provides habitat for a high diversity of plant and animal species representative of Australia's inland desert ecosystems, including at least 20 species classified as Endangered or Vulnerable. The continuity of traditional land management practices and the absence of European land-use impacts over large parts of the area affords the area's significant natural values with a high level of protection under Indigenous management.

The NRS Programme has well established partnership arrangements for land acquisitions and additions to the NRS. These include State and Territory Governments, NGOs, local governments, community groups and private landholders. Acquisitions through partnerships are summarised in Box 4.4. A total of 49 properties in private tenure totalling 0.45 million hectares have had voluntary covenants for conservation signed for inclusion in the NRS.

NRS Programme properties were acquired with NHT funding of $68,142,065 and leveraged partner funding of $78,815.723 (Box 4.1). NRS Programme funds expended and the distribution of expenditure by jurisdiction are summarised in Figure 4.3. The area of land acquired by the Programme are summarised for the jurisdictions in Figure 4.4.

Box 4.4: NRS Programme Partner Acquisitions—31 March 2006

The Australian Government, under the NRS Programme, works with a range of partners to help them buy, establish or maintain land for reserves. Partners include governments, conservation and community groups, traditional landowners and private landholders. Ownership and management of land rests with the partners who agree to meet international standards in conservation management.

State and territory governments	
Australian government funds	$49,484,178
State / territory government funds	$55,988,013
Area (hectares)	5,165,928
Number of properties	203
Conservation NGOs	
Australian government funds	$13,315,227
Conservation NGO funds	$17,063,070
Area (hectares)	1,244,088
Number of properties	28
Local government	
Australian government funds	$3,886,471
Local government funds	$4,616,460
Area (hectares)	908
Number of properties	12
Community groups	
Australian government funds	$1,211,698
Community groups funds	$990,980
Area (hectares)	10,857
Number of properties	7
Private (including individuals)	
Australian government funds	$244,491
Private funds	$157,200
Area (hectares)	185
Number of properties	2

Figure 4.3: NRS Programme expenditures by jurisdiction ($millions)

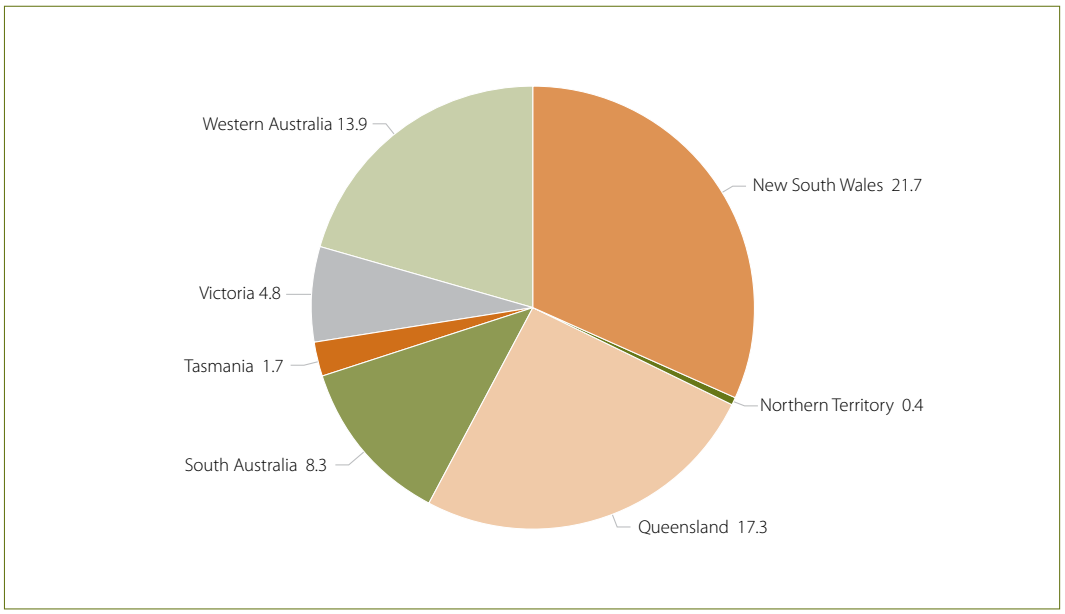
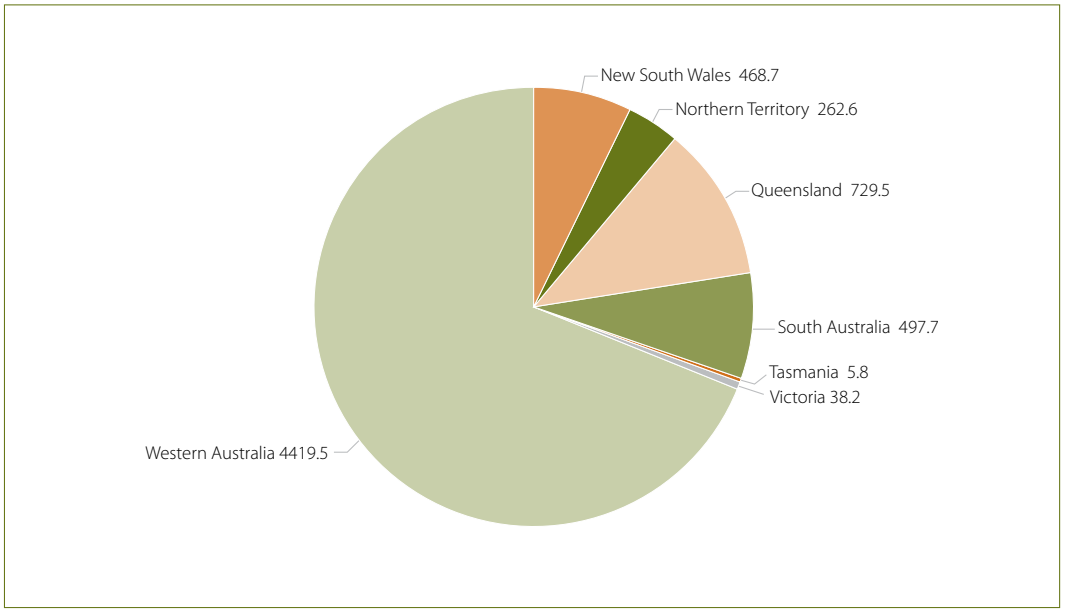


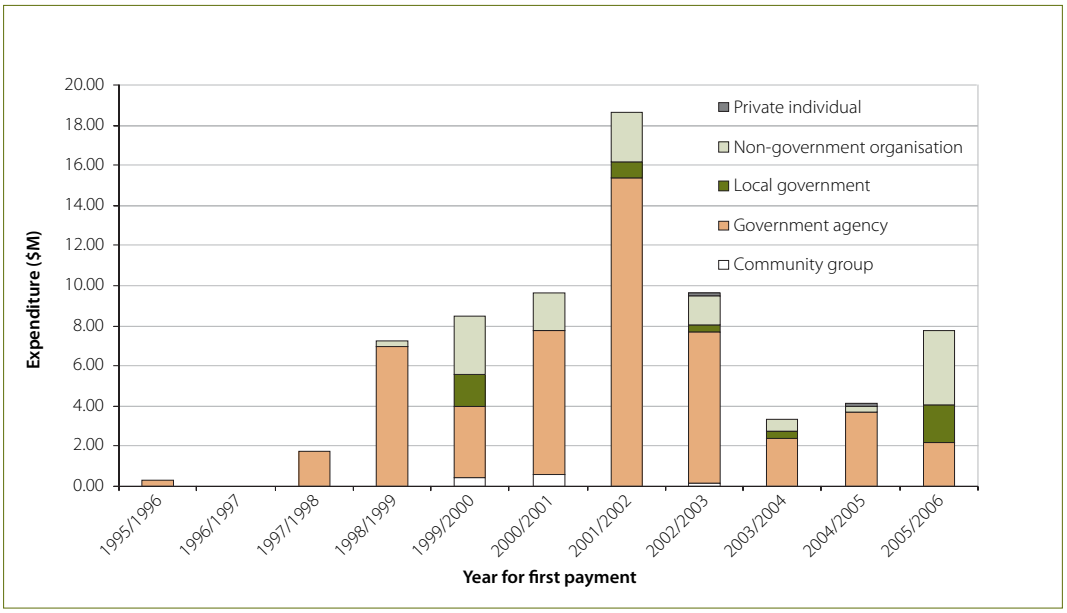
Figure 4.4: NRS Programme land acquisitions by jurisdiction (‚000 ha)



It may be observed from Figure 4.3 that the NRS Programme expenditures appear to reflect in very approximate terms the population within each State and Territory, with the exception of Victoria. The land acquisitions are dominated by Western Australia.

There has been a significant shift in the types of organisation acquiring the land. Prior to 1999, acquisition funds were almost exclusively provided to State and Territory Government agencies. Since then, funds have been increasingly allocated to non-government or private landholders. This trend is clearly evident in Figure 4.5.

Figure 4.5: Annual spending on acquisitions by proponent type



Source: NRS Programme unpublished accounting records
Note: Figures for 2005-06 include projected expenditures from 1 April to 30 June 2006

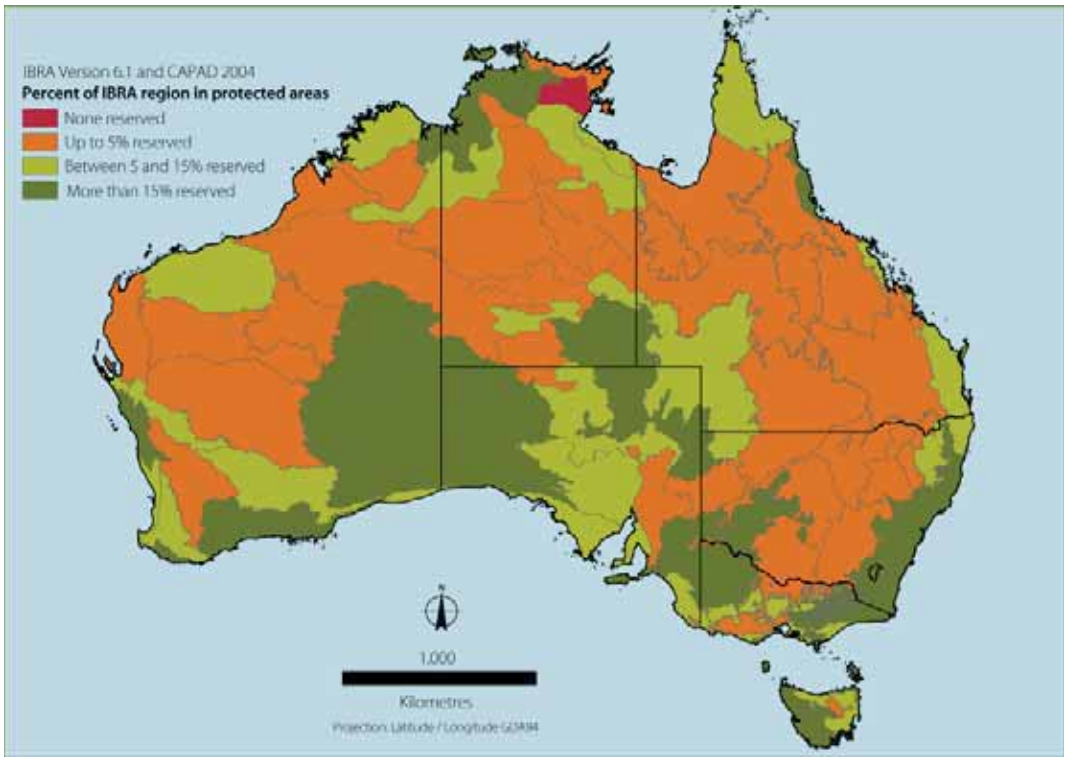
The properties acquired with assistance from the NRS Programme represent a significant contribution to a comprehensive, adequate and representative (CAR) system of protected areas for the NRS. Priority has been given to bioregions with low ecosystem representation. Levels of reservation of bioregions at 31 March 2006 are summarised in Box 4.5. The ongoing activities of the NRS Programme in facilitating strategic acquisitions for the NRS to achieve targets for reservation in each bioregion has been a critical factor for achieving these levels of reservation. Some examples of biodiversity conservation outcomes for the NRS associated with properties acquired with assistance from the NRS Programme are provided in Box 4.6.

Box 4.5: Reservation of Bioregions—31 March 2006

NRS Programme funds assist the purchase of properties to help ensure that each of Australia's 85 bioregions is protected to conserve its natural values. A bioregion is a large area of similar climate, geology, landforms, vegetation. Examples are the Australian Alps, Nullarbor Plain and Wet Tropics.

None reserved	1 bioregion
Up to 5% of the bioregion reserved	32 bioregions
Between 5 and 15% reserved	25 bioregions
More than 15% reserved	27 bioregions

Map 2: Bioregions of Australia



Gains with respect to NRS Programme acquisitions and reservation of under-represented ecosystems are acknowledged in the submissions from the conservation agencies in each jurisdiction. However, most also highlight the high level of investment in land acquisition and reserve establishment made by the State or Territory compared with the contribution of the Australian Government through the NRS Programme. The submissions also highlight the work still to be done if the national policy objectives are to be achieved.

For example, Queensland has spent approximately $105 million since 1993–94 on land acquisition, of which approximately $15 million has been provided by the NRS Programme. While currently, 70% of Queensland's regional ecosystems are represented in protected areas greater than 100 hectares in size across all 13 bioregions, 32% of all regional ecosystems are at risk. These include 10% "endangered" and 22% "of concern" (Submission 27, Queensland Parks and Wildlife Service).

Protected areas have been established by voluntary agreements with Indigenous and other private landholders. These include projects such as the Tasmanian Protected Areas on Private Land (PAPL) Project a partnership which is administered through the Tasmanian Government and targets properties with identified high conservation value for covenants and inclusion in the NRS. A summary of the PAPL Project is provided in Box 4.7.

Box 4.6: NRS Programme Acquisitions—Biodiversity outcomes

Since 1996–97, the NRS Programme has provided more than $68 million to 252 projects to help purchase nearly 6.5 million hectares of land for the NRS. The Programme supports State, Territory and local government, non-government organisations, community groups and private individuals to buy and manage land specifically for the conservation of native biodiversity. The following projects across Australia demonstrate some biodiversity outcomes of the NRS Programme.

Gawler Ranges, South Australia - 166,650 ha

The Gawler Ranges National Park protects and provides an important link between the arid ranges and the dunefields of the Great Victoria Desert and upper Eyre Peninsula. The park also protects a number of threatened and/or endemic ecosystems and species. Now it is a National Park it provides many nature-based recreation and tourism opportunities in a region that has previously had poor public access to the Gawler Ranges.

Partners: *SA Department for Environment and Heritage/Nature Foundation SA*

Long Point, Tasmania - 485 ha

Long Point is a large sand spit that extends out into the internationally-listed Moulting Lagoon Game Reserve. It has approximately 11 kilometres of frontage onto Moulting Lagoon and it encloses Little Bay, recognised as a significant waterbird habitat. Native ecosystems represented are saltmarsh, coastal grassland, coastal shrubby woodland, woodland and wetlands. Long Point is protected by a Tasmanian Nature Conservation Covenant.

Partner: *Tasmanian Land Conservancy*

Ned's Corner, Victoria - 29,816 ha

Ned's Corner Station contains 35 kilometres of the Murray River fringed with red gum forest and surrounded by an ancient terraced alluvial plain dominated by saltbush. The property also includes mallee and black box woodlands, and corridors of Murray pine and belah on hummock dunes and sand ridges. Several nationally threatened species such as the southern bell frog and the regent parrot are protected in this area. Trust for Nature (Vic) is exploring eco-tourism opportunities for Ned's Corner in partnership with Conservation Volunteers Australia.

Partner: *Trust for Nature (Vic)*

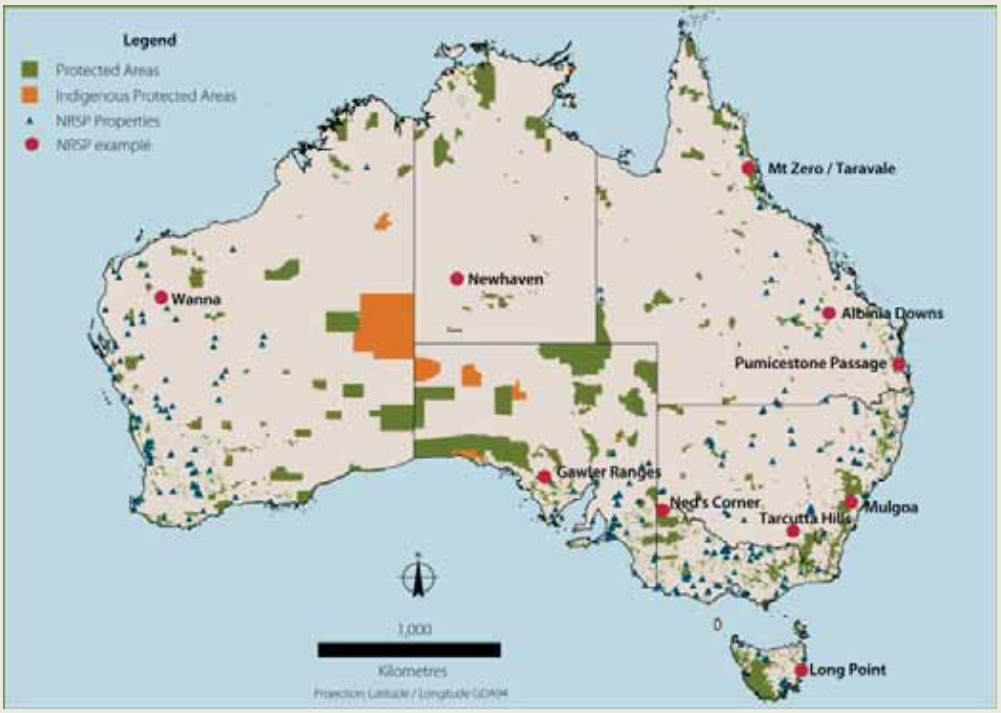
Tarcutta Hills, New South Wales - 364 ha

Tarcutta Hills, on the western slopes of the Great Dividing Range, contains the largest remaining remnant (274 ha) of nationally threatened grassy white box woodland. A further 90 hectares is highly disturbed and work has commenced to aid regeneration. Members of the local and scientific communities are actively involved in its management. A NSW Voluntary Conservation Agreement will protect the reserve values. Tarcutta Hills is accessed through a neighbouring property, so visitors are encouraged only on open days.

Partner: *Australian Bush Heritage Fund*

Box 4.6 continued ....

Location of case studies



Mulgoa Nature Reserve, New South Wales – 75 ha

Mulgoa is located adjacent to the Blue Mountains National Park, in western Sydney. Remnants of the endangered Cumberland Plain Woodland have been under pressure from urban expansion. Mulgoa Nature Reserve includes the only significant natural areas remaining in this part of Cumberland Plan. Inclusion of the property in the NRS and revegetation work has enabled both the retention of a significant natural area within an urban setting and the restoration of an endangered ecosystem of national significance.

Partner: *Department of Environment and Conservation*

Pumicestone Passage, Queensland – 569 ha

Several waterfront properties have been purchased by the Caloundra City Council and added to the Pumicestone Passage National Park through a partnership arrangement with the Queensland Environmental Protection Agency. The properties protect heathlands, coastal woodlands and wetlands used by nationally recognised migratory waterbirds. The consolidated park provides more natural areas for nature based recreation and greater opportunities for the local tourism industry.

Partner: *Caloundra City Council*

Box 4.6 continued ....

Newhaven Station, Northern Territory – 262,600 ha

Newhaven protects important examples of salt lake, dune and arid mountain habitats including two land systems and 10 vegetation types that previously were poorly protected in Australia. It provides habitat for threatened species, especially the princess parrot, the mulgara and the elusive night parrot. Newhaven is of significance to Indigenous people and includes six registered Aboriginal heritage sites. Newhaven is open to visitors from April to October each year.

Partners: *Australian Wildlife Conservancy / Birds Australia*

Wanna Pastoral Lease, Western Australia - 288,800 ha

Wanna is located in one of the driest parts of WA. It contains massive ranges and hills with narrow valleys dominated by mulga and spinifex with good wilderness qualities. There are six vegetation types, five of which are poorly protected in Australia. In the north, Wanna's rivers, permanent springs and floodplains are especially valuable as a refuge for wildlife. Wanna offers opportunities for low key recreation and will benefit from further scientific investigation into wildlife values.

Partner: *Department of Conservation and Land Management*

Mt Zero/Taravale, Queensland – 58,850 ha

Mt Zero and Taravale properties, west of the Wet Tropics of Queensland World Heritage Area, have important examples of ranges and escarpments with deep gorges. The area is of national significance for its threatened rainforest communities, eucalypt forests and woodlands. These properties provide habitat for an exceptional range of animal species, particularly mammals and birds. The properties are protected by Queensland Nature Refuge Agreements. Management is assisted by neighbours and volunteers.

Partner: *Australian Wildlife Conservancy*

Albinia Downs Queensland – 9,823 ha

Albinia Downs, near Emerald, contains an extensive area of Blue Grass Downs (*Dichanthium spp.*). These grasslands of the Brigalow Belt North region are floristically distinct from other large areas of grassland in Queensland. Less than 0.5% of the original distribution of Blue Grass Downs remains due to cropping and weed invasion making it a high priority for the NRS. The King Blue Grass that occurs on this property has now become extinct from remnant grassland patches on the Darling Downs.

Partner: *Department of Environment and Heritage*

Box 4.7: Protected Areas on Private Land (PAPL) Project

Tasmania's Protected Areas on Private Land (PAPL) Project is an NRS Programme project that aims to permanently incorporate private land with important values into the Comprehensive, Adequate and Representative (CAR) National Reserve System (NRS). These include areas with under-reserved vegetation communities, including grasslands, wetlands, riparian vegetation, threatened species and their habitats, and important areas of geo-conservation. The PAPL Project commenced in 1998 and involves a unique funding and collaborative partnership between the NRS Programme, the Tasmanian Department of Primary Industry, Wildlife and Environment (DPIWE), the Tasmanian Land Conservancy (TLC) and the Tasmanian Farmers and Graziers Association (TFGA).

Protection of the CAR values on private land through the PAPL Project is done by developing voluntary conservation agreements with private landowners under the Tasmanian *Nature Conservation Act 2002*.

Outcomes to June 2005

At 30 June 2005, the PAPL Project had covenanted 99 properties totaling 3395 hectares. Each covenant includes an in-perpetuity management agreement and a nature conservation plan outlining agreed management actions for IUCN category IV. Each PAPL Project covenant is recorded in CAPAD 2004 and forms part of Australia's NRS.

The PAPL Project has targeted the highest national priorities for the NRS. It uses a rating range of 1 through 4, with 1 the highest priority. The areas under covenant in each of these priority categories demonstrates the success of the Project in targeting NRS priorities. These include: priority 1 – 661 ha, priority 2A – 768 ha, priority 2B – 398 ha. priority 3 – 1357 ha, and priority 4 – 195 ha.

Sixty-six of the 99 properties covenanted under the PAPL Project contain threatened species. Eighty-five are Tasmanian-listed threatened species. Threatened species conserved under the PAPL Project include two Critically Endangered, 11 Endangered and eight Vulnerable species listed under the *Environment Protection and Biodiversity Conservation Act 1999*.

Support for PAPL

Partnerships under the PAPL Project commenced in 1998. Phase one of the PAPL Project offered voluntary covenants with no financial incentives. It focused on developing partnerships and relationships, built interest in the Project and worked towards covenanting core NRS/CAR reserve priorities. The second phase built on the strong interest in the Project. The PAPL Project has been based on building strong relationships with landholders and the Project has only limited funds to offer for financial incentives.

Box 4.7 continued ....

Strengths

The key strengths of the PAPL Project include:

- It is a well-recognised project that has been in existence since 1998, and is clearly understood and accepted by stakeholders.
- It has a strong four-way partnership (NRS, TLC, TFGA and DPIWE). The partnership provides a sound foundation and facilitates access to complementary tools, such as the Revolving Fund of TLC and also incentive funding tied to specific biodiversity outcomes such as freshwater systems.
- It involves key partnerships at both strategic and practical levels. The TFGA and TLC both host staff who, in turn, provide support, advice and encouragement to landholders.
- The extent to which landholders themselves have embraced the Project and also demonstrated to other landholders the benefits of covenanting parts of their properties. This is illustrated through feedback from landholders, such as the comment: "*We are the best advertising you have for promoting the PAPL Project to the farming community because we are the farmers*".

Issues/Challenges

The PAPL Project partners came together in May 2006 to discuss progress and future directions for the Project. Key concerns and challenges emerging from the meeting included:

- The TFGA is keen to see the development of a 'toolbox' of measures, including the PAPL Project, for farmers to use for conservation activities. Farmers are looking for various options and flexibility to achieve conservation outcomes, especially in native grassland areas where perpetual covenants may compromise the commercial viability of some properties.
- Some farmers in the Midlands have banded together to consider a whole-of-landscape-approach (involving multiple properties) for conservation of natural grasslands values. This could involve PAPL outcomes as well as use of other measures. Currently, PAPL covenant areas range in size from 1 to 200 hectares. To ensure the security of covenanted areas, a challenge for the PAPL Project and other relevant programmes and projects will be to ensure that regional planning creates a network that supports and protects covenanted areas.
- TLC and TFGA would like to see more consideration given to ways of enabling the landowners to diversify and adapt grazing businesses so that they can supply ecosystem services.
- Concern has been expressed by stakeholders in the PAPL Project over the management of crown lands adjacent to private lands. In some instances, they believe poor management of crown lands is impacting negatively on covenanted areas on private land.
- Partners feel more work needs to be done to help farmers achieve appropriate commercial recognition for covenanting their land. Many of PAPL's landholders have received no financial incentives for covenanting their land in perpetuity. Many landholders are motivated by an environmental ethic rather than commercial gain. In some cases, however, covenants have led to an improvement in the commercial credibility of their businesses. For example, one farmer who has oyster leases on his property is now gaining a commercial advantage by supplying 'green' oysters grown adjacent to covenanted land that provides protection from grazing or other land-use impacts.

Box 4.7 continued ....

Future Directions

The PAPL Project partners strongly support a continuation of the Project while also calling for a range of improvements related to issues and challenges outlined above. In particular they hold the view that the PAPL Project could be significantly strengthened including via better linkages to other conservation-related initiatives to ensure a more integrated and whole-of-landscape approach.

Scientific Basis for the NRS Programme

Strategic assessment and establishing priorities for acquisition or protection of properties for the NRS are key activities of the NRS Programme for achieving the national goals and priorities of the NHT. The scientific basis that underpins the activities of the NRS Programme for development of the NRS is founded in the current conservation science and reserve system planning activities of the environment agencies across Australia and is a major strength of the Programme.

The NRS Programme has been a significant factor in achieving a detailed review of the NRS, in highlighting its major strengths and deficiencies and in facilitating strategic acquisitions based on conservation values identified as priorities in the national context.

Guidelines and mechanisms have been agreed between governments for identifying gaps in the NRS and for setting priorities to fill these gaps. These are encapsulated in the *Australian Guidelines for Establishing the National Reserve System* (ANZECC 1999b), with a series of goals including to:

- contain samples of all ecosystems identified at an appropriate regional scale;
- contain areas which are refugia or centres of species richness or endemism;
- consider the ecological requirements of rare or threatened species and rare or threatened ecological communities and ecosystems, in particular those listed in the *Environment Protection and Biodiversity Conservation Act 1999* and other State, Territory and local government legislation or policy instruments; and
- take account of special groups of organisms, e.g. species with specialized habitat requirements or wide-ranging or migratory species, or species vulnerable to threatening processes that may depend on reservation for their conservation.

Many properties submitted for funding under the NRS Programme have been identified through IBRA bioregional assessments or reviews of the status of native ecosystems; in particular, those ecosystems currently unrepresented or under-represented in protected areas. Examples of key biodiversity outcomes of such reviews translating into NRS Programme purchases include temperate native grasslands in Victoria, shrublands in the Gascoyne Murchison regions in Western Australia, and riverine and floodplain communities in the Murray Darling regions of New South Wales.

The *Australian Guidelines for Establishing the National Reserve System* were developed by the NRS Scientific Taskforce of the Australian and New Zealand Environment and Conservation Council (ANZECC). They build upon the framework of the Interim Biogeographic Regionalisation for Australia (IBRA) (Thackway and Cresswell 1995) developed jointly with the States and Territories under the National Reserve System Cooperative Programme and subsequently updated (IBRA 6.1, http://www.deh.gov.au/parks/nrs/ibra/version6-1/index.html).

Discussions with NRS Programme staff indicate that delivery of the Programme within this context involves priority for funding the establishment of new protected areas being given to viable samples of native ecosystems or key fauna habitats in high priority bioregions, or to poorly-protected ecosystems and flora and

fauna habitats of national and State or Territory importance in other bioregions. Where large areas of remnants do not exist, priority is given to those areas managed as part of a larger network of protected areas to assist in maintaining the long-term viability of native biota. High priority bioregions are those with very low levels of reservation and high levels of threat to native biota.

The NRS *Guidelines* have been formulated to provide a consistent national approach for developing the terrestrial protected area system. Their purpose is to assist government agencies, non-government organisations and the community in the development of the NRS, and to assist stakeholders in the understanding of this process. Activities of the NRS Programme are based on the *Guidelines*, and are also dependent on resources available to the Programme and its partners.

The implementation of the *Directions for the National Reserve System – A Partnership Approach*, (Natural Resource Management Ministerial Council 2005) includes commitments to further evaluation of gaps in Australia's protected area estate and to a series of activities to help improve the scientific framework including by reviewing the criteria for assessing adequacy and exploring ways to improve the protection of aquatic ecosystems.

Assessment processes

Applications for NRS Programme funding must provide a detailed overview of the biodiversity values of each property and their contribution towards the development of the national reserve system as outlined in the NRS Guidelines.

Key considerations in the assessment process include the values of the property, their contribution to the development of the NRS, the veracity of the proposed mechanism to protect these values in perpetuity, the expertise of the body in managing protected areas and their ability to provide the financial resources to purchase and manage the property in perpetuity.

Funds are sought from proponents on a competitive basis each year and acquisitions are constrained by what properties become available on the market each year, and also by the natural areas and values remaining in regions that have otherwise been substantially modified since European settlement.

Advice provided to the Minister to inform decisions on possible acquisitions for the NRS for funding under the NRS Programme include how the acquisition would contribute to meeting national priorities for reservation targets for IBRA bioregions, its special conservation values, and also social and economic impacts where information regarding these is available.

Achieving a CAR NRS

Establishing a comprehensive, adequate and representative (CAR) system of reserves is a priority activity for the NRS Programme under the NHT. The concepts underpinning comprehensiveness, adequacy and representativeness of protected areas have their base in conservation science. The relevance of each to the NRS is explained in detail in the NRS Guidelines. Principles for developing the NRS relate to achieving CAR and are outlined in the NRS Guidelines. These include:

Comprehensiveness: The NRS will include the full range of regional ecosystems recognised at an appropriate scale within and across each bioregion. Increasing the comprehensiveness of the NRS, particularly in those bioregions where biodiversity is poorly conserved in the NRS, is the primary focus of the NRS Programme.

Adequacy: The NRS will provide reservation of each level necessary to provide ecological viability and integrity.

Representativeness: Areas selected for inclusion in the NRS should reasonably reflect the intrinsic variability of the ecosystems they represent.

These principles are used by the NRS Programme for its assessment of applications for funding assistance for property acquisitions for the NRS, or for establishing management arrangements that will enable Indigenous-owned or private properties to contribute to the NRS.

Adequacy

The NRS Guidelines address adequacy through the following questions to be considered for identifying protected areas:

'Does the area:

- *provide long-term security for one or more ecosystems and associated species?*
- *increase the security provided by the protected area system for one or more ecosystems and associated species, and to what degree? '*

The concept of adequacy of the NRS and how to achieve this does not appear to be well understood. For example, the issue of adequacy of the NRS is under review and will be subject to further development by stakeholders in the NRS, including the NRS Programme. This is recognised explicitly by the Directions Statement; for example, in Section 2.3.1 which notes that, to assess adequacy, the role protected areas play in the landscape scale needs to be taken into account, and also Direction 2. Progressing Adequacy, viz:

'2. Protected areas are selected and managed to maximise the probability of survival of their biota through:

- *Including replication of sampled regional ecosystems;*
- *Being of sufficient size and condition to ensure long-term sustainability;*
- *Being managed within a bioregional planning context;*
- *Optimising opportunities for species dispersal between protected areas.*

As part of the consideration of long-term targets outlined in Direction 11, particular attention will be given to providing more measurable criteria for progressing adequacy.'

Currently, the issue of adequacy in relation to the NRS appears to be addressed through indirect measures such as the amount of land conserved in protected areas (these increased from 7.5 to approximately 10.5 of the land area of Australia in the period from 1996-97 to 2005), through establishing protected areas on a case-by-case basis under the NRS Guidelines, and by ensuring that their establishment and management addresses special needs, such as habitat required to conserve rare or threatened species.

Adequacy is a key consideration for monitoring and evaluation of the performance outcomes of the NRS Programme, including for reporting under NHT criteria. Monitoring and evaluation and performance in relation to the NRS and NRS Programme are discussed in more detail in this report (see sections 4.1.2 and 4.2.2). The NRS relies on State and Territory systems, expertise, and mechanisms for monitoring and evaluation of NRS properties. These include the recent development of State of the Parks reporting by several jurisdictions.

It is clear that assessing adequacy in relation to the NRS and NRS Programme activities needs to be undertaken in a more defined and explicit way and that the methods and measures to achieve this are yet to be fully developed. The Directions Statement addresses this issue of maintaining adequacy of the NRS over time. The Statement includes specific Directions relating to progressing adequacy of the NRS (Direction 2), monitoring progress on comprehensiveness, adequacy and representativeness of ecosystems in the NRS (Direction 11) and maintaining standards of protection and best practice management for the NRS (Directions 14, 24,25, 28, 29, 30, 31, 34, 35). In this context, further development and implementation of monitoring and evaluation systems and also the use of tracking management audits for NRS properties will be needed to enhance capacity for ensuring the adequacy of the NRS over time.

Recent Trends

A number of important recent trends are evident in relation to activities and outcomes of the NRS Programme. These particularly include progressive involvement of communities in the NRS Programme for delivery of NHT goals, and increasing engagement of the private sector and private sector philanthropy in NRS Programme property acquisitions and management.

For example, NRS Programme funding allocations have shown a progressive trend of shifting away from almost all funds going to State and Territory parks agencies towards increased funding going to NGO's. This has been a deliberate decision in response to limits imposed by State and Territory budgets and the recognition that the potential to tap national and international philanthropy resources should be explored.

The NRS Programme has also facilitated the progressive engagement of the large NGOs in the management of land for conservation purposes. This represents significant institutional change, focusing conservation organisations on practical land management for biodiversity conservation. Working through non-government conservation organisations has also opened opportunities to leverage philanthropy into biodiversity conservation efforts.

The involvement of NGOs can also help focus the allocation of funds from other NHT programmes to activities which complement the functioning of conservation reserves in the NRS. Several submissions note the importance of linkages between these programmes should be further enhanced to strengthen conservation outcomes in this regard. The hardest targets to meet are in the rangelands where strategies need to involve landholder action.

The trend of increasing contribution by local governments and the capacity of local government to contribute to the NRS including through the NRS Programme are also important. While there are views held by some local governments that protected areas represent open space parklands, many local governments are strategically establishing corridors and networks to contribute to biodiversity conservation (e.g. Caloundra region). Some of these are protected in perpetuity with management funded by the local government budget.

There is an important trend of increasing engagement of communities in delivery of NHT goals under the NRS Programme. The engagement of communities is also an acknowledged strength of other NHT programmes, especially in rural areas, working on the assumption that biodiversity outcomes will flow in the longer term from strategic community engagement.

The increasing involvement of the private sector and communities in NRS property acquisitions facilitated by the NRS Programme is exemplified by the successful PAPL Project in Tasmania (Box 4.7).

There has also been a trend of significant enhancement of information sharing and cooperation between the Commonwealth and the State and Territory Government agencies in areas of policy development relevant to biodiversity conservation and reserve management.

For example, the NSW Government submission to this evaluation (submission 37) outlines in some detail the collaborative information sharing and policy formulation work undertaken by NRS Programme Task Group facilitating the development of a national framework for the planning, design, establishment and management of the NRS.

Monitoring and Evaluation

Tangible biodiversity conservation outcomes achieved across NHT programmes, including the NRS Programme, have not been rigorously evaluated to date, so comparisons between the NRS Programme and other NHT programmes are difficult to make. Occasional evaluative comments such as references in the NHT Annual Report 2004-05 to weed and feral animal control programmes covering millions of hectares of land being "completed" can be misleading. Such programmes are arguably only ever "completed" in island

environments where the troublesome species can be eradicated. Long term biodiversity outcomes depend on on-going management which is not assured in all situations.

The NRS Programme has normally only been evaluated in terms of the area of land acquired in target IBRA regions. This has been seen as a surrogate for biodiversity conservation outcomes, and specifically for delivery of a CAR reserve system.

Improved monitoring, evaluation and reporting would assist documentation of NRS Programme achievements. This need is an important component of the Directions Statement, and agreed Directions to address it are identified in the Statement. For comparisons within and between NHT programmes to be meaningful, a rigorous monitoring, evaluation and reporting framework needs to be consistently implemented across programmes, including the NRS Programme.

The NRS Programme seeks to protect existing functioning regional ecosystems, whereas other NHT Programmes are primarily working on ecosystem repair and rehabilitation. The principle that protective management of existing ecosystems is much more cost effective than repair and rehabilitation of degraded ones seems to be generally accepted as fact by many submissions to the evaluation. Given the small NHT commitment to the NRS Programme compared with the allocation for repair and rehabilitation projects, most submissions to this evaluation consider the NRS Programme a very worthwhile investment.

4.1.3 Economic, Social and Cultural Benefits

Australia's national parks and reserves with their distinctive landscapes, flora and fauna provide the foundation for much of the Australian tourism industry. These features coupled with climate and weather conditions that are generally predictable and attractive to visitors result in some parks having millions of visitors each year. As well as providing economic benefits associated with domestic and international tourism, parks and reserves are recognised for their public health, recreation and social benefits, providing venues for family and community gatherings, shared experiences, and the passing on of culture and traditional knowledge. (Sydney Urban Parks Education and Research Group, 2001).

Contributions to local communities and regional economies from some iconic conservation reserves are well documented in case studies from various jurisdictions (NSW NPWS 1998 and 2001, Possingham et al 2002, Gillespie 2003, Carlson and Wood, 2004). Direct employment of reserve management staff, local procurement of goods and contract services can have flow on benefits for local businesses, especially where tourism components attract visitation or lead to tangible extension of time spent in the area by visitors.

However, it is important not to raise false expectations by attributing significant economic benefits to all reserves. Arguably many of the properties targeted through the NRS Programme to enhance protective management of regional ecosystems will not be iconic landscapes and will be unlikely to attract significant tourism. Furthermore, in some remote rangeland areas the resources devoted to managing the land for conservation purposes may not be much different from those applied to marginal pastoral operations.

It is perhaps more useful to think in terms of regionally or nationally significant landscapes across tenures rather than individual reserves. While many protected areas make outstanding contributions to the tourism economy this, by and large, has been fortuitous. National parks and World Heritage areas are established for reasons coincidental to tourism, but even small protected areas may contribute to landscape-scale tourism experiences. Agencies can manage these landscape scale issues by collaborations across jurisdictions and tenures involving interested organisations and landowners.

In some localities, such as around certain South Australian reserves, local economic activity is enhanced by the periodic presence of people from sporting shooters associations engaged in feral animal control programmes or other specific events which can be locally significant.

While not well documented, volunteer engagement assisting with the management of reserves in remote areas also provides additional opportunities for social activities which have a positive benefit for local communities in situations where social interaction requires a very specific focus where input effort can be linked to tangible results. Volunteer engagement in remote and regional private reserves is also expected to generate increased social activity. DEH staff advise that the potential impact on social activity was raised by the local community during consultations, and additional social activities are an anticipated positive outcome from the Boolcoomatta purchase (South Australia).

In the Southern Mallee area of south western NSW assessment and planning work funded by the NRS Programme facilitated the negotiation of offsets involving the reservation of some lands to be managed for biodiversity conservation, allowing other areas to be cleared for agricultural and pastoral activities which enhance the sustainability of some farm enterprises. As well as delivering much valued certainty for local landholders, this approach has also resulted in a wider engagement of local residents in conservation management.

The flexibility of the NRS Programme enables such initiatives to be funded in circumstances where they represent the best prospect of achieving a comprehensive, adequate and representative sample of ecosystems in the bioregions being managed to protect and enhance conservation values.

The impacts in regard to social outcomes are rather more difficult to define than the economic impacts, and quantification is not possible. However, it can be stated with some assurance that the economic activity the NRS Programme brings to communities where more traditional enterprises are marginal can only be of benefit, providing support for employment and in some cases countering the loss of population that has occurred in the past.

The relatively modest socio-economic benefits expected from the establishment of the new reserves are largely collateral to the acquisition of the properties to address biodiversity conservation imperatives but they may make a useful contribution to local economies in sparsely settled areas and compare favourably with the net contribution of marginal pastoral enterprises in semi-arid rangeland areas.

In some quarters the NRS Programme has been perceived as a de facto structural adjustment programme. The NRS does contribute indirectly to rural adjustment or reconstruction programs by providing alternative land-based employment for farm or pastoral industry workers displaced by rural economic decline, industry restructure and associated changes. In some instances, people who put a high priority on their rural land-based lifestyle find satisfying long-term employment when tasked to manage land to protect conservation values.

Some aspects of policy approaches to farm exit programmes have been documented by Botterill (2000). She refers to sociological evidence suggesting that the target group for re-establishment grants and rural restructure programmes are driven by non-economic factors. Employment opportunities in protected area management may be very relevant in these circumstances.

4.1.4 Additional or Alternative Strategies

Some submissions, such as that from the Trust for Nature (Victoria) (submission 21), suggest that the NRS Programme could be usefully enhanced by strengthening those provisions which permit the creation of partnerships between multiple interests such as local government, NGO's, corporations and landholders.

The NRS Programme is a national programme which delivers outcomes based on national priorities. However, once purchased, properties usually contribute to regional outcomes as well. There is substantial room for improved communication between the national programme managers and their regional counterparts.

For example, the NRS Programme managers have technical information based on the agreed national IBRA biogeographic regionalisation that would provide useful inputs to regional biodiversity planning. In addition the purchases should form an integral part of regional activities which include protected areas, covenants on private land, stewardship arrangements and activities on private land.

Any enhanced monitoring, evaluation and reporting framework should be focused on delivery of on-ground outcomes either by individual programmes or by collaboration and co-ordinated efforts between NRS Programme and other NHT programmes.

The majority of the Australian Government's funding on biodiversity outcomes is channeled through regional processes. It is legitimate to question whether the NRS Programme should also be delivered through regional delivery mechanisms. There are a number of cogent reasons why the NRS Programme should continue to be delivered through a national programme. The major partners in the Programme are State and Territory level agencies and national NGOs. The system for identifying national priorities between possible property purchases can only really work effectively through a national programme. Individual property boundaries may straddle regional boundaries.

4.2 Programme Effectiveness

4.2.1 Meeting Objectives

Properties acquired for reservation are targeted to address under-representation. Continuing slow progress towards targets for ecosystem protection in unrepresented IBRA regions is generally seen to be a function of limited resources and other circumstances such as the availability of suitable properties rather than any shortcomings of programme management.

Gazettal and completion of Plans of Management or interim guiding principles are primarily the responsibility of the new reserve owner. However, design of a more rigorous on-going management effectiveness regime would give greater confidence that the programme will meet its objectives in realistic timeframes. The refinement and promulgation of principles for the management of protected areas which can be consistently applied has not yet been addressed with any vigour.

NRS objectives have only recently been reaffirmed in the Directions Statement approved by the NRM Ministerial Council. Further review of the objectives in the near future is not advocated in submissions to the evaluation but some refined articulation of NRS Programme objectives as part of the process of finalising a strategic plan specific to the Programme as opposed to the overall NRS system, would be useful. Such a refinement should include a clear articulation of the meaning of comprehensiveness, adequacy and representativeness. This will assist in ensuring that the contribution of the NRS, and contributions by the Programme in particular, to ensuring the adequacy of proposals to address key threats such as climate change can be more widely understood.

4.2.2 Performance

Current performance indicators relate almost exclusively to the acquisition and establishment process. They relate to hectares acquired in each bioregion, gazettal/establishment processes completed and plans of management or interim guiding principles drafted.

The finalisation of gazettal processes and the development of plans of management or interim management guidelines for acquired properties has in some cases been problematic. Given that performance with respect

to some of the current indicators is generally beyond the control of programme managers and staff, options for ensuring these outcomes are achieved in a timely fashion should be identified and incorporated in the Programme where appropriate. The strengthening commitment in most jurisdictions to management effectiveness and State of the Parks reporting probably provides the best prospect for improving performance over time. Useful performance indicators for the Programme could relate to providing leadership in the development and implementation of such systems and tracking management audits for NRS properties.

Meaningful commitment to a management effectiveness regime which includes robust monitoring, evaluation and reporting on delivery of biodiversity conservation outcomes should be pre-requisite for programme funding approval.

For comparisons of effectiveness to be meaningful, the same framework needs to be consistently applied to public reserves, IPAs, NGO and private reserves as well as to stewardship programmes and projects funded through both NIS and Regional NHT programmes.

The low funding levels (less than 3% of total NHT funding) and marginal positioning of the Programme under the NRM Ministerial Council processes are believed by some contributors to the evaluation to have resulted in a generally low profile and relatively poor recognition of the value of the Programme compared with its previous profile and positioning under the ANZECC Ministerial Council.

4.2.3 Linkages

The 1999 Mid-term review (*Mid-Term Review of the Natural Heritage Trust - National Reserve System Programme,* Centre for Environmental Management (1999)) prepared for Environment Australia concluded that the Programme is limited by the reactive and opportunistic nature of grants programs and that a proactive and systematic targeting of IBRA regions with high threats such as land clearing and agricultural development was required.

The time taken by both the States to negotiate purchases, arrange funds and formalize reservations, and the Commonwealth to assess and approve applications for purchase was also recognized as a major obstacle to the efficient and effective development of the NRS. This assessment highlights the limitations on the Programme if it stands alone and the importance of it linking with related programmes to leverage greater outcomes.

Linking the NRS Programme with NHT Programs

The inherent commitment to long-term biodiversity conservation in NRS Programme acquisitions has no parallel in other NHT programmes. Few, if any, linkages with other programmes are consistently in place; those that do occur are largely *ad hoc*. Linkages between the NRS Programme and other programmes are being progressively strengthened with NRS Programme staff meeting with NRM facilitators and co-ordinators to identify further opportunities for improved communication and collaboration.

Integration of biodiversity conservation into regional or catchment strategies is highly variable. The 2005 evaluation of the National Investment Stream (NIS) of the NHS (ITS Global, 2005) noted that the focus of many NIS investments is to develop plans and suggested there needs to be a stronger linkage between planning processes and implementation processes to enhance the prospects of delivery of the outcomes sought.

Management Effectiveness: Monitoring and Evaluation

The management effectiveness framework promoted by the World Commission on Protected Areas (Hockings et al, 2000) provides an alternative to the narrower requirement for the production of plans of management for reserves. By entrenching a culture of adaptive management, the management effectiveness framework offers

a much more flexible and outcome-focused mechanism for the funding provider to reduce the risks associated with long-term delivery of results.

Given the emphasis placed on management effectiveness by the World Parks Congress (Durban, South Africa, 2003) and the Action Plan adopted by the COP 7 meeting of contracting parties to the Convention on Biological Diversity (CBD) in Kuala Lumpur in 2004, most Australian jurisdictions are proceeding to implement management effectiveness regimes and cyclic State of the Parks reporting. Arguably, requiring such a framework as a precondition of NRS Programme funding must be equitably applied across the reserve system. It could also apply in an appropriate form to recipients of other NIS investments in addition to the NRS Programme.

It is also noteworthy in this context that the 2005 evaluation of the NIS recommended an early commitment (June 2006) to a standard performance monitoring and evaluation framework founded on an assessment of baseline conditions and quantification of the outcomes expected (ITS Global, 2005).

Linking the NRS and NRS Programme with NRM regional planning

Knowledge of ecosystem distribution, components and threatening processes has been improved with refinements to IBRA, mainly through more detailed sub-regional documentation and a range of projects funded under the NRSCP.

The 2005 evaluation argues that there needs to be clearer and stronger linkages between NIS outcomes and regional planning and investment priorities, noting anecdotal evidence that *'outcomes delivered by NIS are, in the main, collateral to outcomes targeted by regional bodies.'* (ITS Global, 2005, p13).

The adoption of nationally consistent principles by nature conservation agencies has been only modestly progressed through the work undertaken by the NRS Task Group and increasing use of the World Commission on Protected Areas management effectiveness framework and State of the Parks reporting in the States and Territories. However, the capacity and commitment to apply such frameworks outside the public park management agencies remains to be tested.

Roles and security of tenure in delivery of conservation outcomes

In his thesis (Deakin University, 2004) on the contribution of multi-tenure reserve networks to biodiversity conservation, James Fitzsimons notes that most private land managers in the networks he studied (Bookmark Biosphere Reserve, SA; Gippsland Plains Network, Vic; and the Grassy Box Woodlands Network, NSW) were willing to be included in a national reserve system of conservation lands. He argues: *'This has important implications for the Australian National Reserve System……The changing nature of the network coordination arrangements suggests an organic fluid evolution of network structures is likely, contrasting with the desire for legalistic and administrative rigidity promoted by government agencies.'*

Others (e.g. submission 6 by WA CALM and submission 37 by the NSW Government) have inferred that without statutorily-defined reservations and on-going funding commitments, biodiversity outcomes cannot be assured and biodiversity values cannot be protected in situations of high visitation without a robust regulatory framework applied by experienced professional staff. Some of Fitzsimons' private land managers might argue that in some circumstances, these management arrangements are unduly legalistic and administratively rigid.

In some regions, examples of important ecosystems only occur on lands that cannot be acquired. Where the land cannot be acquired because it is owned by Indigenous landholders, the declaration of Indigenous Protected Areas offers the very best and innovative outcome for biodiversity conservation and has the potential to provide significant mutual benefits for Indigenous land managers, their communities, their local economies and the national biodiversity conservation agenda. The Indigenous Protected Area Programme is the subject of a separate concurrent evaluation.

In some jurisdictions, many of the opportunities for acquisition of lands for conservation reserves are now on pastoral leases. In destocking such leases there may be issues or potential conflict between the requirements of the pastoral lease and the requirements under State or Territory conservation legislation for managing the land for conservation purposes.

Action to change the nature of the Pastoral leases may trigger Native Title provisions which would require more complex negotiations to resolve tenure and management regimes.

Maintaining long-term management

Management capacity and on-going resourcing costs are questioned by some observers of management regimes involving non-statutory reservations and time-limited funding. Fitzsimons notes that *'on-going institutional support is likely to be required for maintaining networks in the longer term.'*

Some of the uncertainties relating to on-going management of private reserves have been highlighted by the experience of Birds Australia acquiring, but then having difficulty resourcing, the on-going management of the property at Newhaven in the Northern Territory. In accordance with the provisions of the funding agreement, the property has been passed to the Australian Wildlife Conservancy (AWC), an NGO with greater capacity to ensure effective on-going management in this remote location. The NRS Programme funding agreement makes provision for and provides guidance as to how this transfer of properties should occur so that the long term protection of the values for which the property was acquired is ensured.

Some NGO reserve proponents and managers would be satisfied with a lower Australian Government contribution of NRS Programme funds if the money could be invested in an endowment fund to support the costs of on-going management (e.g. Australian Wildlife Conservancy, submission 44). The rationale for such a proposition is that the NGO's are in some instances very successful at leveraging philanthropy especially to support the initial establishment cost. For example, NRS Programme funds totalling $13.3 million leveraged $17 million of funds provided by conservation NGOs for acquisition of 28 properties for the NRS to 31 March 2006. In these circumstances the costs of acquisition are more readily raised than funds to support on-going management. The issue highlights the challenge of meeting on-going management requirements for some reserve types.

Opportunities for integrated landscape management

There is potentially a significant role for the Australian Government to play in encouraging collaboration across multi-tenure reserve networks to achieve integrated landscape management. Efforts by State and Territory parks agencies in the areas of network co-ordination, collaboration and capacity building support for NGO land managers are usually severely constrained by resources available within their jurisdiction. At the same time, the Commonwealth faces the increasing challenge of providing on-going support and capacity building for NGO and private managers of conservation reserves if biodiversity conservation outcomes are to be assured.

The critical mass of experienced reserve management staff, scientific and other specialist support residing in State and Territory park agencies make them, for the foreseeable future, arguably the best available providers of this support for the non-government reserve managers. This is reflected in the policy of the NRS Programme to require private protected areas to be protected by a State or Territory legislative instrument. Over time the pool of expertise in reserve management may well become more diverse, but this is probably best achieved by building capacity through parallel initiatives including training and accrediting volunteers, ranger exchange and secondment programmes and collaborative networks.

The River Parks proposal outlined by Bill Phillips and Rhonda Butcher in *"River Parks: Building a System of 'Habitat Management Areas' across the Murray-Darling Basin"* (2005) provides a useful example of how integrated landscape management might be achieved with enhanced collaboration between NHT programmes.

4.3 Efficiency of the Programme

4.3.1 Efficiency concept

There is generally less than full agreement on how the term *efficiency* should be interpreted when applied to programme evaluation. In broad terms, efficiency in relation to a programme is analogous to the way that the term is used in engineering applications (as the ratio of usable work done by a machine to the input energy).

The concept of efficiency also arises in economics, both in the engineering or technical sense (of minimising inputs for a given output) but also in 'allocative efficiency' which takes into account variation in the outputs and how these are valued by people. The distinction here is that there may not be a universal measure for outputs (such as energy in the case of the efficiency of machines). Rather the outputs need to be stated in terms of the value that consumers (or society as a whole) place on the outputs. For a programme such as the NRS Programme where the objectives (protection of biodiversity and ecosystems) are of a non-monetary nature, this results in some difficulties in finding an objective measure for the outputs, and consequently the efficiency as well.

The assessment of efficiency for the NRS Programme is complicated further since there are a number of distinct issues to be dealt with. Separate analysis of the issues facilitates evaluation but there are important linkages, and these are highlighted where appropriate in the discussion that follows.

The components may best be described as the answers to a list of questions:

1. Is the use of society resources to protect ecosystems and biodiversity efficient, in the economics sense of allocative efficiency that conservation of ecosystems makes society 'better off'?
2. Given that the benefits of conservation outweigh the costs, does the decision making process for selection of lands to be included in the NRS reflect the preferences of society (are the priorities imposed by the NRS guidelines and criteria consistent with the 'value' of the ecosystems protected)?
3. How efficient is the strategic direction of the NRS Programme in raising the level of ecosystem protection above what it would otherwise be?
4. How efficient is the administrative apparatus of the NRS Programme in practice (and within the context of broader government processes) in achieving the objectives of the Programme?

Each of the questions has a different meaning of efficiency, and the inputs and outputs are quite different as well.

4.3.2 Efficiency implications of protecting ecosystems

This question lies at the heart of the debate on development versus conservation: What value can be attributed to conservation? It should be observed that the debate is not quite as polarised as might seem in a bald development-conservation statement. Conservation does contribute to more traditional measures of economic activity, and good commercial practice is often consistent with conservation goals.

It could be argued that the above question is independent of the NRS Programme, in the sense that other programmes could pursue similar conservation outcomes. But the answer clearly underlies the rationale for the NRS Programme: If conservation is not worthwhile, then other aspects of efficiency become rather meaningless. Also, certain of the concepts introduced in this section are relevant in considering efficiency in relation to the further investigation into the operation of the NRS Programme.

More detailed discussion on these matters is provided in **Attachment 2**. In view of the variation across lands acquired under the NRS Programme, it is difficult to generate global programme estimates of the economic

impacts. Importantly, the discussion is in terms of resources that are not restricted to the NHT funding for the NRS, but include costs incurred by society as a whole.

What are conspicuous by their absence are estimates of the value of ecosystems or the biodiversity they support. Not only are these concepts so difficult to define that in practice no genuine valuations of biodiversity have been possible, in the case of the NRS there are additional criteria that need to be taken into account, namely the CAR criteria. One of the implications of adopting the CAR criteria is that it is not individual ecosystems (let alone individual species) that are to be valued, but rather the achievement in acquiring representatives of each 'type' of ecosystem. In this sense, as outlined in Attachment 2, one aspect of the value of the NRS is that it makes all of the preserved ecosystems available to future generations. The value of individual ecosystems, in fact, can be expected to grow as further research improves the understanding of natural processes and possible beneficial applications.

In view of the difficulties outlined above, no attempt has been made to place valuations on biodiversity or ecosystem protection as such. The consequence is that it is not possible to undertake a quantitative efficiency analysis for the NRS Programme since the primary outputs cannot be valued in quantitative terms. Instead the approach in the evaluation of the NRS Programme is to take as given that society places a sufficiently high value on biodiversity that the protection taken under the NRS makes society 'better off'. This conclusion is endorsed by the national policy positions previously identified, international obligations accepted and the high levels of support for the Programme in the submissions received as part of this evaluation.

4.3.3 Efficiency in decision making

This section deals with whether decisions made in regard to the purchase of individual properties are appropriate given scientific understanding of the importance of biodiversity and the preferences of society.

Private versus government reserves

The issue of use of NRS Programme funding for private protected areas (including land owned by NGOs) rather than, or in addition to, public reserves was raised in a number of submissions. Some State or Territory agencies took the view that, while they were in favour of NRS Programme support for conservation on non-government lands, decision making for lands outside the national public reserve system should be separate and the funding should be incremental to rather than substitute for the funds allocated for the public reserve system. The effect would be an increase in the funds made available for the conservation areas on government land.

Lands owned by government are generally under the control of the relevant State or Territory national parks authority. Such an arrangement has a host of advantages. State and Territory national parks agencies are subject to their own legislation as to how natural areas are to be managed. This facilitates the negotiations between the NRS Programme and the proponent, since the own-jurisdiction statutory requirements need not be repeated in the NRS Programme agreement. In any case, dealing with a small number of organisations on a repeated basis by the NRS Programme staff reduces the transaction costs for both parties because of the mutual understanding that has been built up. For example, there is a much smaller chance of 'surprises' being sprung during the interaction. Finally, the State and Territory agencies have the in-house expertise, and resources to tap into specialist knowledge when necessary to augment the in-house capability, needed to manage the conservation lands to ensure that the conservation values are protected at an appropriate level.

These advantages accrue to a large extent at the time the land is acquired. But there are further benefits during the ongoing management.

The situation is rather different in the case of land not controlled by government. The drawing up of agreements and covenants often requires lengthy negotiations, in order to deliver an acceptable level

of assurance that the management of the land will be appropriate for the values to be conserved. It is a requirement that a perpetual nature conservation covenant with the State or Territory be negotiated and established, a plan of management is prepared, and guidance for the proponent and final endorsement can involve significant Programme staff resources. While the well established conservation bodies such as Birds Australia and Trust for Nature (Victoria) can generally call on the necessary expertise, smaller organisations and private landowners require considerable technical assistance with the development of the management plan and its ongoing implementation. NRS Programme staff estimate that typically it may take an order of magnitude (ten times) more staff resources in 'life cycle' costs to establish conservation areas on non-government land. The costs are particularly high for proponents with little experience in managing conservation areas. Experience to date is that negotiating State or Territory conservation covenants takes a considerable time in these circumstances.

Costs associated with non-government conservation areas are not restricted to NRS Programme staff. Legal advice on more routine cases is obtained from Australian Government Solicitors within the DEH budget. External advice is sought in more complex cases, reported to be perhaps 3-4 times per year. Some support is sometimes provided for partial payment of the legal costs incurred by proponents.

Counterbalancing these costs are two major advantages associated with non-government reserves. The first advantage arises in the case where a conservation area is created through the use of covenants without the need to acquire land. The big saving is that the financial outlay in purchasing the land is avoided. This is a major consideration given that direct support for land acquisition is by far the largest component in the NRS Programme budget. The savings are particularly pronounced if the land is close to settled areas where the price of land is high.

The second advantage relates both to effectiveness and efficiency considerations. The conservation activities of individual landowners and NGOs increase the available choice of lands to be included in the NRS. As the number of land parcels increases, so too does the range of ecosystems that can be preserved. This is important from an effectiveness perspective since it promotes fulfilling the CAR criteria. In fact, there is no doubt there would be more 'gaps' in the NRS inventory if the non-government lands were excluded, given that these lands might never be available for acquisition for the public estate.

A third major advantage is that NGOs meet another policy priority of the Government – they bring significant private philanthropy to the table, thus adding significantly to the total outcome in the extent of the NRS. For example, conservation NGOs had purchased 28 properties for addition to the NRS, representing a total area of 1,244,088 hectares, and leveraging NGO funds of $17,063,080, to March 2006.

Increasing the choice of lands available for inclusion in the NRS also has efficiency implications. The greater the choice of available land parcels, the more likely it will be that more advantageous combinations of ecosystem values and price (or no price) can be identified. The outcome is that the NRS Programme will be able to obtain a greater bang for the conservation buck. See also the comments on potential land purchases that are lost to the NRS Programme in Section 4.3.5.

Nevertheless, it must be recognised that in considering the 'outputs' of the NRS Programme a distinction should be made between lands in government and non-government ownership. There is considerable concern in the case of non-government lands in regard to the security of appropriate conservation outcomes in the long term. These concerns relate to the generally lower level of expertise held by the land managers, difficulties in monitoring compliance with covenants and possible loss of commitment over time. It therefore becomes of critical importance to engage the NGOs in developing and then applying the proposed national management effectiveness framework to private conservation reserves.

Role of non-government bodies

One of the key questions in political economy is the appropriate limits of the role of government, and in particular the role within the economy. In free market economies the role of government has been generally restricted to those cases of demonstrated market failure. It is widely accepted that examples of 'market failure' occur in relation to the environment and, of particular relevance to this evaluation, to the protection of biodiversity and ecosystems.

More recently there has been growing interest in creating markets for goods and services that have not been traded in the past, notably markets related to what might broadly be termed the natural environment. One example that is discussed in **Attachment 2** relates to markets (or market based instruments) for eco-services.

A major issue identified in Productivity Commission (2001a) in increasing the level of biodiversity protection by individuals or non-government bodies is the lack of property rights for biodiversity. Property rights sit at the centre of any market-based system since they ensure that an owner can enjoy the value of assets and provide the legal basis for buyers and sellers to be confident on the outcomes of transactions.

There are considerable difficulties dealing meaningfully with property rights on a concept such as biodiversity that does not relate to specific objects (or goods), and this makes the development of markets problematic. Where markets may possibly be created is in terms of biodiversity-related goods and services. An example might be the conservation of remnant native vegetation.

What substitutes for biodiversity is often the protection of specific species. Even for species protection, Productivity Commission (2001a) outlines two major difficulties if a commercial return is to be made. The more fundamental difficulty is that the 'ownership' of native fauna is poorly defined and is inconsistent across the States and Territories.

The second difficulty takes a more general economic form. Preservation of biodiversity is a 'public good', in that it is not possible to exclude members of the general public from enjoying the good – everyone enjoys the benefits of biodiversity. Other than through philanthropy, people who invest in biodiversity protection can earn income only to the extent that they can make a charge for a service (and exclude all who do not pay the charge). The most common form of charge is an admission fee to observe or even handle native fauna. These activities in turn have the potential to compromise the conservation objectives.

Productivity Commission (2001b) addresses some of the institutional barriers to private sector involvement with conservation, such as land tenure issues, inconsistent or poorly designed regulation, impacts of taxation on incentives and competitive neutrality. The promotion of conservation on private lands is the subject of Productivity Commission (2001c). However, the issues relating to securing the conservation outcomes in the long term on non-government lands remain.

Aretino et al (2001) published a case study of Earth Sanctuaries Limited which operates a number of wildlife sanctuaries. However, in 2002 it was forced to sell a number of the sanctuaries not open to the public (the one at Scotia was purchased with the help of NRS Programme funds). There are also other areas that have been set aside as 'sanctuaries' that are highly commercial enterprises that, in some cases, offer quite luxurious accommodation and on the face of it have little to do with biodiversity protection.

4.3.4 Efficiency in raising level of conservation

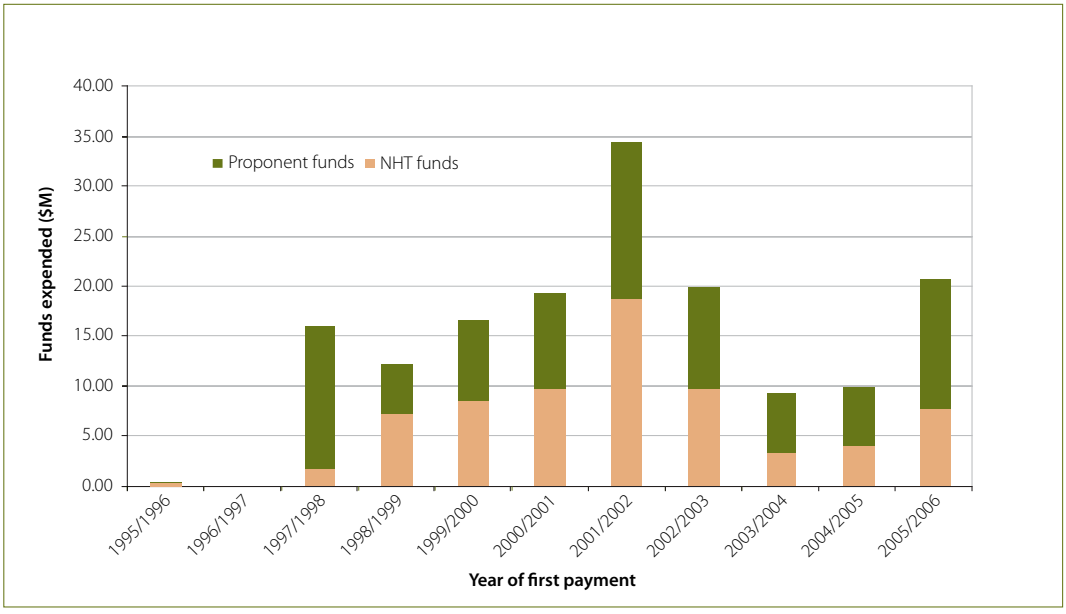
In the absence of the NRS Programme, there would have been ongoing efforts by the States and Territories to add lands to the formal conservation reserve system, as well as the activities of various NGOs in conserving private land. The intention of funding provided from the NHT for the NRS Programme has clearly been to increase the rate at which additions have been made to the conservation reserve estate.

The word 'rate' has been chosen carefully. In assessing the worth of conservation efforts it is important to incorporate the time element. Many examples of high ecological value are under threat of permanent damage from various future developments. To secure them now rather than in the future is to eliminate the risks from development and maintain the values they contain that could be compromised or lost.

This section examines whether the NRS Programme has been efficient in achieving this objective. In other words, could an improved conservation result have been achieved with the same level of funding as the NRS Programme has had available? Note that the inputs for the purpose of this section relate primarily to the NRS Programme budget allocation.

The design of the NRS Programme revolves around the leverage that NRS Programme funding can provide in attracting additional resources from other organisations (State or Territory government and non-government sources). When the NRS Programme commenced, the agreed funding ratio was 2:1 ($2 from the NRS Programme for every $1 from the proponent) but after 2001-02 the ratio has dropped to 1:1 where the proponent is a State or Territory Government agency. Statistics for the source of funding are shown in Figure 4.6. It can be seen that in the early years of the NRS Programme and, more recently, funding by proponents has accounted for in excess of 50% of the total money spent.

Figure 4.6: Source of funding for acquisitions



Source: NRS Programme unpublished accounting records
Note: Figures for 2005/2006 include projected expenditures from 1 April to 30 June 2006

It is emphasised that the expenditures in Figure 4.6 are restricted to purchases. There remain the ongoing costs of management. As indicated earlier, costs of establishment actions funded by the NRS Programme budget are $4.7M over ten years. The remaining management costs have been met by State and Territory parks authorities or by NGOs (for non-government conservation areas, a large proportion of the resources for management have been provided through volunteers). In informal discussions with heads of State and Territory conservation agencies at their meeting in Canberra on 28 February 2006, it was suggested that their annual expenditure on reserve management would total close to $1billion.

If the NRS Programme fully funded land purchases in which it was involved, the contribution to the list of conservation areas would be measured simply by the size of the budget. But the NRS Programme has been designed to leverage its own budget by requiring co-contributions towards the purchase of land.

As measured by the NRS Programme budget, it would appear that the Programme has been very efficient in conserving ecosystems. For every dollar of Programme funding, the NRS estate assisted by the Programme has attracted investment for land acquisition of between $1.50 and $2.00 in additional investment, as well as the much greater investment commitment to on-going management.

Appropriate incentives

A possible source of inefficiency occurs when an attractive property is identified and the landowner notifies willingness to sell, but no proponent chooses to submit an application for NRS Programme funding. Even though the conclusion could be reached that the property is worth purchasing for the NRS, the acquisition does not occur. The most likely reasons for this situation are that the incentives faced by any proponent are not sufficient for the proponent to proceed with an application for funding, or that the required contribution to the purchase price exceeds the proponent's budget constraint.

Given the likely attractiveness to a proponent of the conservation values of a property that meets the NRS and NRS Programme criteria, it can be surmised that the shortfall in incentives is dominated by financial considerations. And it is not just that the amount of funding required to be found by the proponent for the purchase is too high; the proponent also needs to keep in mind that if the acquisition goes ahead the proponent will be responsible for the future management costs of the land.

The straightforward solution to reducing this problem would be to increase the level of funding made available from the NRS Programme, and so reduce the funding required from the proponent.

Clearly attempts to maximise the level of conservation attained (as measured against NRS and NRS Programme criteria) from a fixed NRS Programme budget face a conflict between two competing considerations. The first consideration relates to incentives for the proponent: as discussed above the higher the funding ratio (in other words the greater the proportion of NRS Programme funds) the easier it will be for proponents to find the remainder of the costs associated with land acquisition. In turn this will encourage proponents to make applications for more properties, and fewer high value properties will be lost to the NRS. The improved incentives need to be balanced against the second consideration which concerns the direct impacts on the NRS Programme budget: a lower funding ratio (reducing the NRS Programme contribution) will allow the Programme to spread its fixed budget across a wider selection of properties.

Implications of changing the funding ratios

As the funding ratio changes, two extreme cases are possible. At one extreme the NRS Programme would provide 100% funding upfront (ignoring ongoing costs for management for the moment), at the other extreme the NRS Programme would not fund anything and, in effect, cease operations. There is an 'optimal' level of funding (in terms of maximising the value of the conservation areas constrained by a fixed budget) where any change in the funding ratio would result in a net loss in the conservation outcomes. This optimal point may be at either of the extremes, though this seems unlikely. More importantly, in practice it is not possible to determine this optimal point empirically; the information requirements relate to the preferences and budgets of proponents and changes in the property market.

A number of submissions have called for an increase in the funding ratio. Some submissions have argued for the NRS Programme to fund the total cost of acquisition since the costs of ongoing management are borne by the proponent. However, others see value in the NRS Programme assisting with management costs, given the widely held view that in the case of NGOs it is easier to attract donations for acquisitions than for funding ongoing costs.

The effects of the funding ratio can be expected to fall unequally on the different jurisdictions. One major advantage of the NRS Programme is that it promotes a national approach to conservation. Some of this advantage is lost in those States, and particularly the Northern Territory, that are sparsely populated but have significant biodiversity values to protect. As there is usually less immediate threat to the biodiversity in the NT there is some breathing space. However, these jurisdictions face difficulties in funding land acquisitions at an adequate level due to the relatively small tax base. The consequence of the heavy per capita burden is that ecosystems from these jurisdictions may be under-represented in the NRS, and this is reflected to an extent in the expenditures (see Figure 4.3).

On the other hand some of the priority areas considered for inclusion in the NRS may be very small areas of remnant ecosystems that are under a high degree of threat scattered in the suburbs of major capital cities. Typically, these blocks are comparatively extremely expensive on a hectare by hectare basis compared with some of the broader areas in the rangelands and beyond.

The Queensland EPA submission (submission 27) argues that Queensland is the most biodiverse state, but that its national park system covers only 4.3% of the land area of the State compared with a national average of 7.6%. The National Parks Association of Queensland submits that the NRS Programme should receive 50% of the total funds available to the NHT and that of this, 20% should be provided for acquisitions in Queensland (submission 13).

Obviously, each jurisdiction has its own case to make, but this only serves to highlight the value of a programme that can assess all proposals on their merits with reference to national objectives and priorities.

Various submissions have referred to the costs of on-going management of protected areas in the NRS and the fact that Commonwealth funds are not available to support these costs. In this context, the submission from NSW National Parks and Wildlife Service (submission 37) proposes access to NHT funds for pest and weed control and rehabilitation work in protected areas. Another approach put forward by the Australian Wildlife Conservancy (submission 44) addresses this issue by recommending that 50% of the Commonwealth contribution be set aside in a permanent investment fund to generate income for management of a property acquisition for the NRS. AWC also proposes that the Commonwealth contribution for this purpose be matched by a similar contribution from the funding recipient.

There seems to be a sound basis for the Commonwealth not getting directly involved in land management which is the responsibility of the States and Territories under the Constitution, but it is also important that NRS Programme investments are properly secured by assisting with the establishment costs of reserves to be included in the NRS. In many cases, the Commonwealth contributions to establishment costs may enhance opportunities for further leveraging of funds for the NRS.

Is the level of funding adequate?

Various submissions have cited studies that have estimated the quantity of funding needed to achieve a truly CAR conservation system.

It is clear that, at current levels of funding, the indicated levels of expenditure will not be reached within the life of the NRS Programme. What does this imply for the efficiency of achieving conservation outcomes? If the decision making process results in high priority properties being chosen for acquisition, and if the transaction costs inherent in administration and budgetary arrangements are not excessive, then the law of diminishing returns applies. As more conservation areas are protected, the value of succeeding areas becomes progressively lower. Nevertheless, the strength of support for the NRS Programme, as evidenced by the submissions received in this evaluation, indicates that 'at the margin' (where current purchases are occurring) the conservation value of lands available for acquisition exceed their cost. In other words, when threats to ecosystems are taken into account, the level of funding is inadequate if the performance of the NRS Programme is to be optimised.

Definition of the non-NRS Programme situation

A further issue needs to be raised in regard to the level of success the NRS Programme has had in leveraging contributions from proponents. The possibility exists that funds provided by states as part of the purchase price for lands acquired under the NRS Programme may in fact have been transferred, at least in part, from the budget that the parks agency would have set aside for the formal reserve system in the absence of the NRS Programme. To the extent that this occurs, the leveraging effect may be illusory, since the State or Territory contribution is not additive.

Even worse from a CAR perspective would be the case where the states in effect view the NRS Programme funds as covering part at least of their commitment to providing conservation areas. The impact on the State or Territory agency budget for protecting ecosystems under this scenario would be negative – the net result of the NRS Programme is that the State or Territory actually spends less on conservation than they otherwise would. Presumably, even in this case, the aggregate funds expended for conservation within the State or Territory would have increased due to the NRS Programme injection.

In the event, the potential for cost shifting appears not to have materialised. Informal advice has been given by staff in State and Territory parks agencies that the existence of the NRS Programme funding provides a useful argument when the agencies seek funding from their treasury departments. Experience during specific land purchases has demonstrated that the agencies have been successful in gaining additional funding in this way. In summary, it would appear that the NRS Programme has indeed been successful in leveraging the levels of additional funding that would be indicated by the funding formula.

4.3.5 Efficiency in administration

Transaction costs

Efficiency in administration deals with *transaction costs*. In a sense all resources used in administering the NRS Programme could be treated as transaction costs. However, for the purpose of the review, the term transaction costs will be restricted to those matters that prevent the programme from operating at its notional efficiency when considering the inputs and outputs outlined above.

For the purpose of the discussion on transaction costs, an idealised model is developed of how the NRS Programme process operates and introduces the concept of a 'ranking list'. In any one year, the NRS Programme has a fixed budget to spend and it is assumed, for the sake of simplicity, that this budget is allocated in full to land acquisition.

Purchase of land under the NRS Programme is opportunistic. In any one year there will be a list of properties that potentially become available for purchase with support from NRS Programme funding. In theory, at least, these properties could be ranked in terms of their attractiveness. The ranking would be based in the first instance on the conservation values of each property as measured against the NRS and NRS Programme criteria (such as CAR) relative to the purchase price. The term conservation values is used here in such a way that it reflects the difference in ecosystem outcome if the land is acquired versus the non-purchase case (for example it takes account of threats to the conservation values). For the purpose of this section, it is assumed that the criteria that drive the decision process for selecting lands for acquisition is given and fixed. Secondary considerations (social or economic impacts for example) may also be incorporated into the ranking.

An idealised decision-making process would then see the budget allocated to the purchase of the properties on the list in order, starting with the highest ranked property and proceeding with properties down the list so that at each stage after the purchase of the previous property the next highest ranked property is chosen. The process continues until the budget is exhausted. This ideal process results in maximum efficiency in terms of

spending a fixed budget – it is not possible to derive a higher aggregate level of conservation values for the money expended in that year given the properties that are available. Any deviation from the ranking on the list should be regarded as a loss of efficiency – it is a departure from the ideal outcome since a less valuable property (in terms of NRS and NRS Programme criteria) has been substituted for a more valuable property.

The dynamics of the NRS Programme processes introduce certain effects that mean that this ideal level of efficiency is most unlikely to be realised in practice. Some of these effects are more or less under the control of the NRS Programme (they are part of the design of the programme) while others are not though it may be possible to minimise their impact.

The first deviation from the ideal arises if there are properties that may be very attractive from an NRS perspective but that are not offered for acquisition. How would an attractive property fail to get on the list? The most likely reason is that the land owner may not flag to the NRS Programme that the property could be available for purchase, and in turn this may be due to ignorance of the NRS Programme on the part of the landowner. This is a classic case of market failure where a mutually beneficial trade does not proceed even though there is a willing buyer and a willing seller. The form of market failure is due to an information gap: the NRS Programme (or possible proponents) are not aware that the land owner would consider selling and the landowner is not aware that there is a potential buyer who would be interested in purchasing the property. Almost by definition, it is difficult to estimate how many attractive properties are lost due to information shortfalls of this type.

The most effective means to address this market failure is for the NRS Programme to provide general information to landowners. The current practice is to issue calls for applications for NRS Programme funding once or twice per year. These calls rely on the efforts of proponents (both State and Territory government and non-government) to actively search for and investigate properties that might be suitable for inclusion in the ranking list. More intensive awareness campaigns have been considered by NRS Programme staff but further action along these lines has been constrained by lack of resources and a concern that the nature of the market may change, advantaging vendors and limiting the ability of the Programme to get best value for money.

The second source of inefficiencies occurs when an attractive property is identified and the landowner notifies willingness to sell, but no proponent chooses to submit an application for NRS Programme funding. This has been discussed above in the previous section.

So far it has been assumed that the NRS Programme budget remains fixed. The effect of increasing the budget has also been covered in the previous section.

Budget year constraints

Further departures from the idealised concept of a ranking list occur due to the fact that properties may become available at different times of the budget year. The initial ranking of properties at the beginning of the year may need to be adjusted if a more attractive property comes onto the market. In some cases this may shift part of the list down in a single block (below where the new property is inserted in the list), but if the new property filled a gap in representativeness better than a property already on the list, then this latter property might be removed altogether at the request of the proponent or if 'spare' funds have become available when another acquisition has fallen through. The availability of new properties during the year is clearly beyond the control of the programme, and it appears that the decision-making process is sufficiently flexible to accommodate this.

Given that the ranking list has been developed, at least notionally, there remain possible sources of inefficiency where properties on the list are not acquired in the ranking order. Cases such as where the land has been withdrawn from sale, or the proponent has a change of mind, are excluded.

Where desirable properties come onto the open market, it behoves the NRS Programme and the proponent to move quickly to secure the sale. There are two possible sources of inefficiency here, both due to missed opportunities. One source is the potential for delays in obtaining approval for the NRS Programme funding from the Minister. Since there are at least two buyers (the NRS Programme and the proponent) it seems that there needs to be good coordination between all parties involved. The process of purchasing property takes time, and there are a number of events and stages that have to be passed: inspection, clearances, exchange of contracts and final settlement. The process is considerably more complex in the pastoral lands since further conditions need to be met. Where land is sold by auction the difficulties can increase because of the need to make decisions on the day. In some cases the negotiation and purchase process may take a number of years and this puts further pressure on the seller who is often under high stress arising from the circumstances that have led to the property being put up for sale.

Fixed budget cycle

Another source of inefficiency arises due to the fixed budget cycle for the NRS Programme funding. Funds allocated within a budget year need to be spent in that year, and there is no rollover. It is understood that in the past there have been a limited number of examples where funding has been transferred from other parts of the NHT budget on a temporary basis.

Given the opportunistic nature of land acquisition it is not possible for the NRS Programme to 'sit on one's hands' – purchases must be pursued on a more or less continual basis. What may happen is that a particularly valued property is offered late in the budget period when there are insufficient funds remaining to purchase it. If the sale cannot be deferred to the next budget period, the property may be lost.

NRS Programme staff emphasise to proponents that the Programme is not able to guarantee funding in such situations if the proponent buys the property out of their own resources and then seek to recover the contribution from the NRS Programme. However, NRS Programme staff have indicated that proponents have provided the total purchase price in some cases (and been subsequently reimbursed from Programme funds).

A related issue arises due to the graininess of land acquisitions, where there are funds left in the current budget but the funds are not enough to purchase any of the available properties before the end of the year. The authors understand that this has not been a major problem to date.

It would seem that a case could be argued for more flexibility in the budgeting for NRS Programme funds. The NRS Programme accounts for only a small proportion of total NHT funding. A system of carryover of the NRS Programme budget from one financial year to the next would have a relatively minor impact on the global NHT budgeting performance.

5. Summary of Major Issues and Findings

Photo credits ***Left:*** *Tussock grasses at Long Point Reserve, TAS Land Conservancy Inc. – Matt Newton.* ***Top:*** *Star River Valley at Mt Zero, Taravale Sanctuary QLD, Australian Wildlife Conservancy – Australian Wildlife Conservancy.* ***Middle:*** *Solanum flower at Bimbowrie Conservation Park SA, Department for Environment and Heritage – Department of the Environment and Heritage.* ***Bottom:*** *Eastern Barred Bandicoot at Porter Hill Reserve TAS, Hobart City Council – H & A Wapstra.*

5. Summary of Major Issues and Findings

Chapter 4 of this report scans the array of inputs received in the evaluation and the content of formal submissions received is summarised in **Attachment 3**. Ten major issues emerge which warrant analysis and specific findings:

- Achievements of the Programme
- Status and Budget for the NRS Programme
- Programme Structure and Funding Formula
- Eligibility of Reserves Types
- Integrated Landscape management
- Management Effectiveness
- Assessment Criteria
- Aquatic Reserves
- The Place of IPAs in the NRS Programme
- Programme Management

5.1 Achievements of the Programme

Achievements

Submissions to the evaluation recognise that the NRS Programme achieved in three key areas: providing a national planning framework for strategic enhancement of the NRS; funding specific acquisitions; and providing a national forum for the resolution of policy and other issues of mutual concern to reserve planners.

The overwhelming majority of submissions either explicitly or implicitly acknowledge that the Programme has strong support from a wide array of government and non-government organisations. It is recognised by scientists and policy makers as a central element of Australian Government delivery on international commitments with regard to biodiversity conservation and national statutory and policy obligations related to those commitments.

All jurisdictions point to significant positive outcomes for biodiversity conservation from the national framework, specific acquisitions and the policy forum provided by the NRS Programme. The evidence suggests that, rather than replacing expenditure by the States and Territories, the programme has stimulated significant additional expenditure that has been strategically focussed into the national framework.

The National Land and Water Resources Audit 1997–2002 reported that 67% of Australia's regional ecosystems were represented in reserves; a significant achievement, in an international context.

Investment and acquisitions

Since 1993–94, the Queensland Government has invested approximately $105 million in land acquisitions for reserves, of which, approximately $15 million was provided by the Australian Government. Over the last 10 years, the West Australian Government has invested more than $24 million, with a further $12.3 million coming from the Australian Government.

In NSW since 1996–97, the State Government has spent about $125 million for land purchase for reserves with the NRS Programme contributing a further $16.5 million, or approximately 11.5% of the total amount spent. 48 properties totalling nearly 350,000 hectares have been purchased with the assistance of the NRS Programme. 72% of the total area acquired was for the purpose of establishing reserves in bioregions where there were previously few, if any, areas reserved. The other 28% was land adjacent to existing reserves, targeting poorly reserved ecosystems as well as enhancing reserve efficiency and viability. In a smaller state such as Victoria, the $4.57 million received from the NRS Programme for the purchase of 39 properties totalling 7,714 hectares is recognised as a welcome boost to the Victorian Conservation Land Purchase Programme and all purchases have enhanced the CAR attributes of the State reserve system.

Management

Support provided by the Programme has usefully drawn the non-government sector into the business of managing land to protect and enhance biodiversity values. This coupled with covenanting initiatives has extended the land available for protective management and added flexibility in terms of management approaches. The security of some tenures and the long term capacity of some management regimes have been questioned and warrant further consideration.

Indigenous Protected Areas

The significance of Indigenous Protected Areas (13.8m hectares) as a proportion of the total of land added to the NRS (20.8m hectares) since 1996–97 also warrants further analysis, especially when the IPAs, representing 66% of the total additions, were achieved with 15% of the NRS Programme budget. The status and security of funding for on-going management of IPAs are considered in the separate concurrent evaluation of the IPA Programme.

Social and economic implications

While many submissions claim significant socio-economic benefits from the enhancement of the NRS, it is important to distinguish between iconic National Parks which have been documented as drawcards for tourists, with the capacity to contribute significantly to the local or regional economy; and the many, less scenic and more remote reserves acquired under the NRS Programme based on CAR reserve criteria for regional ecosystems. The economic evaluation by Syneca Consulting Pty Ltd warns that it would be inappropriate to make extravagant claims about economic benefits flowing from such acquisitions.

However, it is worth noting that funding devoted to on-going management can help reduce the impact of the loss of former primary production activity as well as avoiding the cost of rehabilitation where continuation of such activity is damaging the land. Indeed, in some remote rangelands, the low level of economic activity associated with conservation management may equate closely with that of marginal pastoral operations.

Social and cultural costs and benefits from the NRS and protected areas generally have received only limited attention. As mentioned in Section 4.1.3, there are instances where people seeking a rural lifestyle and work environment have apparently comfortably made the transition from being engaged in stressful marginal agricultural activities to employment managing land for conservation. While aspects of this issue have been documented by Botterill (2000) and the Sydney Urban Parks Education and Research Group (2001), further work is needed to give a more meaningful picture of the place of conservation management of land in the life of rural and remote communities.

Findings:

5.1.1 The NRS Programme has been an important and cost-effective component of Australian Government's efforts to conserve Australia's unique biodiversity

5.1.2 NRS Programme acquisitions and their on-going management are generally not likely to produce significant economic activity but measurable social, cultural and economic benefits may be identifiable in some remote rangeland situations.

5.2 Status and Budget

One of the strengths of the NRS Programme is that it is a national programme. Traditionally, land management and more particularly the protection of ecosystems and securing biodiversity have been State or Territory responsibilities. By providing a national perspective, the NRS Programme has a number of advantages:

- Australia is a signatory to a number of international conservation agreements and international treaties and agreements come under the purview of the Australian Government;
- A national conservation programme will foster uniform criteria for decision making on acquisitions, avoiding the situation where one State or Territory may have set their criteria too high (resulting in spending for at best marginal conservation returns) while another State or Territory sets their criteria too low (resulting in valuable examples of biodiversity being lost); and
- Ecosystems are not delineated by State and Territory boundaries and an approach that is not distorted by border issues can be expected to deliver superior outcomes.

Numerous submissions question the status of the NRS Programme relative to programmes devoted to land repair or rehabilitation and lament the decline in the overall NRS Programme budget in recent years. This issue is complicated by uncertainty about the nature of the ecosystem which results from such rehabilitation work. The dynamic nature of ecosystem processes means that the product will rarely be a simple restoration of a pre-existing system.

The Directions Statement acknowledges that protection of vegetation communities so as to permit the natural movement of species, gene flow between populations and maintenance of ecological processes is the most effective way of retaining biodiversity values.

Protective management of existing vegetation communities is recognised as being many times more effective than trying to repair and rehabilitate degraded systems. While the lack of a common and consistently applied monitoring and evaluation framework makes it impossible to compare results between programmes in any detail, several submissions draw attention to the apparent imbalance between NHT programme allocations for repair and rehabilitation projects and the allocation for protective management of existing vegetation.

Of course, this is not to diminish the achievements of these other programmes in engaging local communities in conservation activities. The importance of improved linkages between programmes in the interests of achieving connectivity and integrated landscape management is the subject of later discussion.

The purpose of establishment of the NRS Programme was to accelerate the rate of acquisition of properties for the NRS, in recognition of the increasing threats to biodiversity values from some traditional pastoral

and agricultural land management practices as well as new development proposals. This acceleration has been significant in minimising the efficiency costs of having to do more repair and rehabilitation work if the degradation of biodiversity values continues. Additionally, growing concern about the implications of climate change for biodiversity values has highlighted the importance of reserves as refugia for vulnerable species and populations.

It should also be noted that the specific relationship between the Programme and the NRS is sometimes difficult for stakeholders to differentiate and could be more clearly articulated. This issue could be best addressed through improved and targeted communication involving the establishment of a clearer identity for the NRS Programme that delineates its key role for delivery of the NRS in a national context.

Submissions note the significant enhancements to the reserve system made possible by the early years of the NRS Programme but express concern that the desired acceleration in the growth of the NRS has slowed dramatically with the significant reductions in the NRS Programme budget. The Northern Territory Government (submissions 3, 25) flags the national and international significance of its biodiversity values, expresses a willingness to make a major contribution to the NRS through its Conservation Master Plan, but believes this will only be possible if significant resources are provided by the Australian Government as a national priority rather than based on a per capita allocation.

Similarly, the Western Australian Department of Conservation and Land Management (submission 6) highlights the declining opportunities to acquire suitable lands and notes that on average over the last 10 years it has invested approximately twice as much in the expansion of the NRS in WA as the Australian Government

Continuing and enhancing the NRS Programme as a national programme is seen as critical if national objectives for biodiversity conservation are to be achieved. The shift to regional delivery of NHT programmes has led to the dominant focus being on local projects with, at times, a very parochial mindset even reluctant to take due account of a World Heritage property in the region (submission 11 – Marc Hockings, WCPA).

The quantum of funding needed to maximise the effectiveness of the NRS Programme is the subject of various proposals in submissions. A common argument is that funding levels need to be restored to at least the levels applied in NHT 1. Others argue that the NRS Programme should have at least $20 million per year to invest, but if there is a strong desire to accelerate the rate of acquisitions, $30–40 million per year will be needed. The WWF (submission 40) argues that between $20m and $40m per year is needed if the 80% comprehensiveness target in the Directions Statement is to be achieved by 2010–2015.

The WCPA (Australia and New Zealand) (submission 16) proposes that a comprehensive ecosystem retention effort should attract funding comparable with the national land repair effort ($1.4 billion over 8 years). This is seen as equating to $50–60 million per year from the Australian Government if States and Territories and other partners are also mobilised to invest.

Some submissions refer to the National Biodiversity Initiative (2004) which is a wide-ranging proposal involving the investment of $3.2 billion over 6 years. One facet of the proposal would see the NRS expanded to 80% comprehensiveness by 2010.

Sequential linkages can be usefully drawn between:

- the National Land and Water Resources Audit's Terrestrial Biodiversity Assessment (1997-2002) conclusion that 67% of Australia's regional ecosystems were represented in national parks and formal reserves;
- the 80% representation target in the Directions Statement; and
- the PMSEIC analysis concluding that $300m–$400m is needed to fund the residual acquisitions.

The residual unknown is the level of contribution the Australian Government might reasonably expect to continue to leverage from the States and Territories. Whilst this is ultimately a judgement to be made by the Australian Government, based on the submissions to this evaluation and particularly the concerns expressed in State and Territory Government submissions, it seems reasonable to conclude that an Australian Government contribution of between $20m and $40m per year will be needed if the target is to be met.

Findings:

5. 2.1 The NRS Programme's value results in part at least from its recognition as a national programme focused on accelerating the reservation and protective management of bioregionally significant lands. This recognition could be improved by establishing a clearer identity for the Programme that clarifies its role in delivery of the NRS in a national context.

5.2.2 The reduction in NRS Programme funding in recent years has reduced the rate of reservation of strategically significant lands.

5.2.3 Additional targeted funding from the Australian Government will be required if the Directions Statement target of 80% representation of regional ecosystems in the NRS by 2010–2015 is to be met.

5.3 Programme Structure and Funding Formulae

The NRS Programme can be characterised as having three core elements:

(i) acquisition of properties;

(ii) assessment and planning to identify priority properties for incorporation into the NRS; and

(iii) formulation and promotion of nationally consistent principles and best practice standards for the improved management of protected areas.

In the early years of the NRS Programme, the programme partners were exclusively the State or Territory conservation agencies. The funding formula for acquisitions was 2:1 in recognition of the State or Territory commitment to the on-going management of NRS reserves. In 2001–02 the formula was changed to 1:1 for the government agency partners but remained 2:1 for non-government proponents.

The investment in the second element has been only modest, but the work done with WA CALM on the Gascoyne-Murchison Strategy gives an indication of what can be achieved.

The State and Territory conservation agencies have budgets totalling close to $1 billion per year the bulk of which is devoted to the management of reserves which form part of the NRS. The shared commitment embodied in the Directions Statement may be at risk without some further recognition of magnitude of the on-going management costs borne by the partner jurisdictions when properties are purchased for the NRS.

The recent shift to greater support for non-government reserves inserts an additional uncertainty in some jurisdictions with informal concerns being expressed that State or Territory agencies may need to be the

management support of last resort if the non-government organisations formed to acquire and manage reserves prove unsustainable.

Several submissions to the evaluation argue that NRS Programme funding should allow for costs associated with reserve establishment, rather than just the purchase price. Previous reviews (see Section 2.5) and several submissions to this evaluation (submissions 23 – Parks Victoria; 24 – Victorian Department of Sustainability and Environment; 32 – Australian Bush Heritage Fund; 38 – Birds Australia; 40 – WWF Australia, and 41 – South Australian Department of Environment and Heritage) have argued strongly that the set-up costs involved in securing the biodiversity assets, such as fencing, initial weed control and preparation of the first management plan, should be covered under the Programme.

Findings:

5.3.1 The 2001 change to the funding formula applied to acquisitions by State or Territory conservation agencies has reduced the effectiveness of the NRS Programme and, if unchanged, has the potential to erode the 'shared approach' highlighted in the Directions Statement.

5.4 Eligibility of Reserve Types

Australian Government international commitments and national policy positions represent a strong commitment to conservation of Australia's biodiversity. In view of the general acceptance of protective management of regional ecosystems as a surrogate for biodiversity conservation, the capacity of the management regimes to deliver conservation outcomes is a critical issue.

Advocates for the public reserve system such as the State and Territory conservation agencies (e.g. NSW Department of Environment and Conservation – submission 37), identify specific values attributable to statutory reserves:

- security, resilience and continuity of protection of land in perpetuity, both legally and financially;
- statutory reserve management principles consistent with IUCN management category objectives;
- on-going public financial investment and comparatively low-cost management of land;
- legislatively-defined public accountability for, and transparency of, reserve management;
- community participation in management planning and ongoing advisory roles;
- professional management utilising a comprehensive range of land and water management and scientific skills;
- a focus and reference point for building and strengthening conservation partnership between government and the community; and
- assured ongoing public access to most areas, often with provision of facilities for outdoor recreation.

The WA Department of CALM (submission 6) expresses full support for private protected areas and IPAs but sees them as complementary to, rather than substituting for, the formal public reserve system. Others too express unease, stressing the need to clarify the policy on the role of private lands within the NRS. Fitzsimons (submission 10) makes the point that decisions to accept some forms of binding agreements or covenants on private lands, and not others have the potential to significantly alter acquisition priorities.

Fitzsimons (submission 10) notes that grants to non-government land managers generally require more follow-up support than grants to State or Territory agencies. It is also the experience of NRS Programme staff that non-government proponents require more support and processing time than State or Territory agencies.

On the other hand, the Trust for Nature in Victoria (TFN) (submission 21) submits that there are many advantages to covenanting as a conservation instrument including:

- providing access to conservation outcomes not possible in the public sector;
- helping keep people living and working in rural and regional communities; and
- complementing the range of policy approaches from market-based instruments (e.g. Bush tender) to community-based programs (e.g. Landcare).

TFN covenants are described as statutory permanent protection agreements that allow private landholders to voluntarily conserve habitat and wildlife on their properties. The agreement is described as a 'Deed of Covenant' that is an encumbrance on the property title in perpetuity. Covenants outline land management restrictions, prohibiting the exercise of pre-existing property rights such as entitlements to clear vegetation or graze livestock for the current or all subsequent owners. Similar options are available through the National Trust of Australia (WA) through their Bushbank revolving fund and covenanting programme.

The engagement with the non-government sector has drawn additional resources and perspectives into the field of managing land for conservation and has created opportunities for leveraging philanthropy to share some of the costs involved.

Findings:

5.4.1 There has been a shift in emphasis in the NRS Programme with increased support for non-government conservation initiatives at the expense of contributions to the public reserve system.

5.4.2 Non-government reserves can represent an important component of the NRS.

5.4.3 The public reserve system which is statutorily defined and managed by professional agency staff with specialist support, within a robust regulatory framework, in most instances offers the best prospect for securing conservation outcomes.

5.4.4 Non-government proposals have a higher processing cost and successful proponents require more follow-up support than State or Territory agencies.

5.4.5 Non-government proposals add significantly to the overall NRS outcome because of their capacity to attract private philanthropy.

5.5 Integrated Landscape Management

Many submissions made reference to the need for improved linkages between programmes and between conservation initiatives across the landscape if the return on the total investment is to be maximised.

While submissions from individual NRM facilitators in Queensland, Western Australia and Tasmania (submissions 31, 29, 17 respectively) indicate that there are instances of very positive linkages between the NRS Programme and the work of Catchment Management Authorities and other NHT programmes, the general consensus seems to be that there is considerable scope for further strengthening and enhancing the linkages.

The Wildlife Preservation Society of Queensland (submission 8) suggests there needs to be more emphasis on large, relatively intact systems across the landscape rather than delivering isolated pockets of green in a fragmented landscape. The ACT Government (submission 9) highlights the need to integrate reserve and off-reserve approaches to biodiversity conservation and landscape recovery. Fitzsimons (submission 10) seeks clarification of the role of Conservation Management Networks in the NRS Programme. This issue is also taken up by the Trust for Nature in Victoria (submission 21) who give examples of their collaboration with State agencies and CMAs seeking to achieve landscape scale planning for biodiversity conservation.

The Gold Coast and Hinterland Environment Council (Gecko) (submission 14) draw attention to the finding of the Terrestrial Biodiversity Assessment (2002) that only 1.5% of NRM programmes have biodiversity conservation well integrated into their plans.

Several submissions emphasise the importance of integrated landscape management initiatives and linkages between programmes in the context of the national Biodiversity and Climate Change Action Plan. Attention here needs to be directed to providing refugia and migration paths for vulnerable species.

The National Association of Forest Industries (NAFI) (submission 19) urges governments at all levels to recognise the conservation and biodiversity outcomes associated with production forests and the use or conservation of forests on private land as a complement to the environmental outcomes achieved by having elements of the same forest types managed in the NRS.

Findings:

5.5.1 There is scope for further strengthening and enhancement of the level of integration and linkage between the NRS Programme and other NHT programmes.

5.5.2 There is also room for further integration of NRS Programme outcomes with NHT regional activities.

5.6 Management Effectiveness

Plans of Management or other agreed management guidelines, are required to be prepared for all properties acquired with the assistance of the NRS Programme. All properties acquired must have at least a statement of management intent within six months of purchase. Properties operate subsequently under management guidelines during the period in which a full management plan is to be developed. Many properties are still in the process of developing a full management plan.

The NRS Programme also seeks the adoption by nature conservation agencies of nationally consistent principles and best practice standards for the improved management of protected areas. However, this has not received specific attention and the major interaction with State and Territory agencies has been on acquisitions and reserve criteria.

These deficiencies have been noted in several submissions. The ACT Government (submission 9) explains that its focus is now on research, monitoring and management aimed at improving the ecological condition of reserves and protection of habitat for listed threatened species. Hockings (submission 11) reminds us that the National Land and Water Audit (1997–2002) reported that management was considered good or very good in only 17 of the 85 bioregions across Australia. The standard of management is also an issue of concern for the WCPA (submission 16) with regard to problems such as adjacent land use, invasive species, fire regimes, water extraction, threatened species and endangered ecological communities.

The WA Dept of CALM (submission 6) states that even in the absence of high level active management, the acquisition of land for conservation has immediate biodiversity and community benefits such as through the removal of stock grazing and formal legal protection against inappropriate uses. The Conservation Council of WA (submission 16) is, however, concerned that 5 million hectares of rangelands which were formerly pastoral leases (ie 2% of the land area of WA) are still unreserved, approximately six years after they were purchased.

The NAFI (submission 19) argues that:

- instead of relying on simple area targets, the NRS Programme should require that any future investment in biodiversity conservation and ecosystem protection should be supported through an adaptive and flexible approach to management;
- an effective and nationally consistent monitoring programme should be established to assess the on-going health and vitality of ecosystems in the NRS;
- no future expansion of the NRS should occur unless the areas added to, and those already contained within, the NRS are required to meet the standards of forest management set out in an independently audited certification standard, such as the AFS or equivalent standard; and
- a report should be produced on the actual outcomes, including biodiversity achievements, which are delivered by the NRS Programme.

Much of this input reflects the outcomes of the World Parks Congress (2003), the CBD COP7 meeting in Kuala Lumpur in 2004 and the work of the WCPA Taskforce on Management Effectiveness over the last several years. Most Australian nature conservation agencies are now committed to some form of adaptive management and State of the Parks reporting within a Management Effectiveness framework.

The Australian Government is in the process of advancing the application of management effectiveness nationally, in a way which achieves the desired NRS Programme outcome. This is being achieved through the NRS Task Group activities for implementation of Directions under the Directions Statement leading to a national code of protected area management. The effectiveness of that leadership will depend on the status of the NRS Programme and the level of engagement achieved with the States and Territories.

It would greatly assist future evaluations if the same monitoring, evaluation and reporting regimes were applied to non-government reserves and also adopted by other NHT programmes.

Findings:

5.6.1 NRS Programme objectives for enhanced management of NRS reserves are not currently being met.

5.6.2 The WCPA Management Effectiveness Framework provides a useful model for advancing the development and consistent application of best practice standards of adaptive management of reserves.

5.7 Assessment Criteria

Successive Australian Governments have committed to the establishment of a Comprehensive Adequate and Representative (CAR) reserve system and as recently as 9 February 2006 the Minister for the Environment made reference in Question Time in the Senate to the NRS seeking *'to create over the next 15 years a comprehensive and representative system of unique Australian biodiversity'* (Hansard, 9 February 2006)

Several submissions to the evaluation raised questions about whether the CAR criteria remain appropriate as the basis for planning and assessment of proposals for the NRS Programme. Some organisations argue for the addition of Resilience and Connectivity to the criteria. These are considered to have particular relevance in addressing the impact of climate change on vulnerable systems. The Wildlife Preservation Society of Queensland (submission 8) believes that the presence or absence of threatened species alone should not be a driving force for acquisition. The Society is concerned about reliance on regional ecosystems as a surrogate for biodiversity, arguing that there are strong correlations for forests and woodlands, but the linkage is not demonstrated for grasslands, forb lands and low shrublands.

Others suggest that opportunities have already been forgone and that establishment of a CAR protected area system and ecologically sustainable management of some species and ecosystems will not be possible (e.g. Bosworth—submission 12). Attention is drawn to the Australian Terrestrial Biodiversity Assessment (2002) conclusion that 31% of subregions in the intensive land use zone had less than 30% of their native vegetation remaining and 48% showed little connectivity between remnants. Bosworth contends that the minimum acceptable goal for a functioning landscape providing a basic level of ecosystem services and retention of a moderate proportion of biodiversity is 30% of native vegetation at a landscape level.

The Directions Statement flags the need to give particular attention to protective management of wetland ecosystems. This issue is also taken up in several submissions to this evaluation. The Queensland EPA (submission 27) notes that wetlands are essential for the abundance and distribution of fauna throughout the landscape and to provide drought refuges for fauna.

The NRS Programme is supported by a Task Group of protected area specialists drawn from nature conservation agencies across all jurisdictions. A Scientific Advisory sub-group meets periodically to consider issues such as criteria. It was reported to the Task Group meeting in Hobart on 3 March 2006 that the Scientific Advisory sub-group had met to discuss elements such as Resilience and Connectivity and concluded that these were best captured by clarifying the Adequacy criterion and ensuring that these elements are fully addressed in planning and assessment of proposals.

Findings:

5.7.1 Protective management of selected samples of regional ecosystems as a surrogate for biodiversity conservation remains the best available option for planning and enhancing the NRS Programme.

5.7.2 The Comprehensiveness, Adequacy and Representativeness (CAR) criteria remain the best available for the purpose of planning and assessing acquisition proposals by the NRS Programme.

5.7.3 There is a need to more clearly articulate the CAR criteria, especially to explain the scope and components of the Adequacy criterion so that Resilience and Connectivity elements are addressed. Adequacy of the NRS and its assessment needs to be improved as indicated in the Directions Statement.

5.8 NRS Programme coverage of Aquatic ecosystems

Several submissions have noted the exclusive focus on terrestrial ecosystems and reserves. The Inland Rivers Network (submission 18) considers it imperative that the NRS includes freshwater ecosystems in protected areas if it is to be truly comprehensive. The Network proposes a substantial funding programme to address this gap in the NRS and to implement the framework to be developed as a result of Direction 7 in the Directions Statement. The IRN/ACF paper *'Vision for a Framework under NWI for the protection of High Conservation Value Freshwater Areas in Australia'* is put forward for adoption as the mechanism through which the NRS Programme fulfils its obligations. Protecting valuable freshwater ecosystems has been identified as one of the priorities for the PAPL Project in Tasmania in both 2004–05 and 2005–06.

The WCPA (Australia - New Zealand) (submission 16) proposes that there should be a similarly funded programme for a National Reserve System of Marine Protected Areas. The National Parks Australia Council (submission 22) is concerned over the separation of marine and terrestrial reserve considerations which leads to anomalies over the degree of protection and expectations. The inconsistency of messages from Fisheries and Environment agencies is raised as a matter of particular concern.

These views on freshwater ecosystems must be considered in the context of agreed directions to progress the NRS, outlined in *Directions Statement: Directions for the National Reserve System – A Partnership Approach* (Natural Resource Management Ministerial Council 2005). For example, direction 7, specifically addresses the need to ensure freshwater ecosystems are appropriately incorporated within the NRS (Table1, p.9, and p.33). Marine Protected Areas are the subject of a separate programme by the Australian Government.

Findings:

5.8.1 Achieving the contribution of freshwater ecosystems to a CAR protected area system, identified in *Directions for the National Reserve System: A partnership approach* (Direction 7), is an important priority for future development of the NRS.

5.9 Indigenous Protected Areas

The Indigenous Protected Areas (IPA) Programme is the subject of a separate evaluation. However, IPAs have been the subject of comments in several submissions to this evaluation and it is appropriate that the points made are addressed.

The overall message is that voluntary declaration of IPAs by Indigenous people is welcomed as a valuable contribution to the NRS provided they meet the requirements of the Directions Statement.

The NT Government (submissions 3, 25) acknowledges that Indigenous people own and manage some of the Territory's most biodiverse lands and that achieving conservation benefits at local, regional, national and international scales will, to some degree, depend on success in addressing chronic Indigenous disadvantage. The intention is to implement the NT Parks and Conservation Masterplan in ways that achieve economic and social benefits for Aboriginal land owners and managers; linking reserves to regional development plans; facilitating direct employment in conservation and tourism both on and off-reserve; encouraging associated Aboriginal enterprises; and offering training.

The Indigenous Land Corporation (ILC) (submission 30) considers the IPA Programme to be highly successful and points out that it has funded acquisition and land management to support the IPA Programme to the tune of approximately $7.7m since 1996–97. The ILC also points out that of the 20.8 million hectares of land added to the NRS since 1996–97, 13.8 million hectares (66%) was contributed through the IPA Programme. The ILC highlights the fact that despite providing 66% of the land, IPA funding since 1999–2000 totals only $12 million (15%) of the total NRS Programme budget since 1996–97.

The ILC concludes by stressing the need for increased funding to support management of IPAs along with capacity building for Indigenous landholders. This theme is also taken up by the Queensland NPA, suggesting that Cape York should be a focus area for investment in this regard. The WCPA also identifies the lack of funding for on-going management and short-term funding cycles as impediments to effective management.

Several submissions highlight the need for closer engagement with State and Territory nature conservation agencies on the development and management planning for IPAs. The WA Dept of CALM (submission 6) believes that future IPAs should be established under tripartite agreements between traditional owners, the State Government and the Australian Government and that they should be linked to long term statutory protection.

Findings:

5.9.1 IPAs have made a major contribution to the expansion of the NRS and have enabled the incorporation of lands that would have been otherwise unavailable for reservation.

5.9.2 Without assured funding for on-going management, the status of IPA lands as part of the NRS is questionable.

5.9.3 Capacity building support and links to initiatives to address Indigenous disadvantage will be crucial if biodiversity conservation outcomes are to be achieved on IPAs.

5.9.4 While flexibility is a key consideration, options for developing tripartite arrangements between the Australian Government, State and Territory Government agencies and IPAs should be actively explored.

5.10 Programme Management

The general view emerging from input to this evaluation is that management of the NRS Programme is reasonably efficient, administration costs are a modest proportion of the overall budget, staff members are competent and pleasant to deal with and processes are systematic.

Areas identified for possible improvements include:

- a fixed timetable for developing applications would enhance efficiency;
- 3–5 year funding rather than annual funding would improve the chances of acquiring high priority properties;
- greater publicity and communication of NRS Programme achievements would be likely to increase the number and quality of properties offered for purchase;
- the previous practice of consultation with State and Territory nature conservation agencies on all proposals from their jurisdiction helps ensure that only high priority acquisitions occur;
- the length of time needed for voluntary acquisition negotiations needs to be recognised in the management of acquisition funds;
- broad distribution of funds to a myriad of small projects that do not have accountability attached to them detracts from NRS Programme effectiveness.
- the best environmental outcome needs to be considered over dollar efficiency and there needs to be greater transparency in decision making with all applications and justifications outlined on the NRS website;
- there should be better scientific transparency so that it is clear to the proponent and the land manager why proposals were accepted or rejected;
- assessments of priorities need to include consideration of social and economic impacts;
- land managers should be provided with feedback on 'Management Statements' provided to DEH; and
- CAPAD should be reviewed and improved by adding a map-based search and report function and more regular updating as well as ensuring that it is accessible to State and Territory agencies.

The DEH Legal Section (submission 33) has also submitted that refinements should be made to acquisition arrangements, including:

- consideration should be given to requiring a mortgage in all cases where the Commonwealth provides funds for the purchase of properties, to provide greater security through the acquisition process; and
- the NRS Programme should provide funding on settlement where possible, if necessary directly to the vendor, rather than providing the funds in advance to the purchaser.

These issues should be considered on a case by case basis depending on legal, administrative and market circumstances and constraints.

Findings:

5.10.1 The NRS Programme is administered efficiently, with systematic administrative procedures and competent staff.

5.10.2 There is room for improving communications with prospective proponents and vendors to enhance the effectiveness of the Programme.

5.10.3 Programme efficiency could be enhanced by regularising an annual timetable for receiving and processing proposals.

5.10.4 Programme credibility would be enhanced by greater transparency in decision making and clearer communication of reasons for decisions.

6. Recommendations

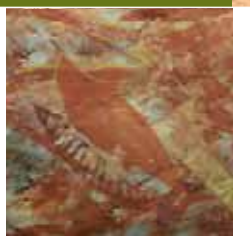


Photo credits ***Left:*** *Mornington Nature Reserve WA, Australian Wildlife Conservancy – Ecopix.* ***Top:*** *Small wetland at Lake Saint Clair Conservation Park, Department for Environment and Heritage SA – Department for Environment and Heritage.* ***Middle:*** *Euro buck at Oonartra Waterhole at Boolcoomatta Nature Reserve SA, Australian Bush Heritage Fund – Wayne Lawler.* ***Bottom:*** *Rock art, Anindilyakwa IPA – Steve Strike.*

6. Recommendations

Overall Assessment

The NRS Programme has made a major difference to biodiversity conservation on a national scale. As such it has made an important contribution to meeting the Australian Government's overarching objectives and national priorities under the NHT.

It is widely accepted that securing remnant areas of land with high biodiversity values in protective management is many times more cost effective than investments in ecosystem repair.

It is convincingly argued that as a mechanism for delivering the biodiversity outcomes sought by Government, the NRS Programme warrants investment of a higher proportion of the total government funding allocated to biodiversity conservation than it has received in recent years.

Recent reductions in the overall level of funding and the differential formula for allocation of NRS Programme funds have reduced its effectiveness and threaten to undermine the shared approach enunciated in the 2005 Directions Statement.

A hierarchy of reservation options exists between statutory public reserves supported by robust regulatory frameworks, professional staff and specialist advisory services on the one hand and short term commitments by private landholders without statutory protection or regulatory framework, professional staff and specialist support on the other.

Investment of NRS Programme funds should seek to establish reserves as high up the hierarchy as possible in order to maximise prospects for certainty of delivery of biodiversity outcomes.

The lower certainty of outcomes in private reserves should be addressed by improving the legal frameworks within which they are established and through the consistent national application of management effectiveness frameworks.

The additional risks inherent in private reserve initiatives are at least partly offset by the benefits they offer in additional capacity to expand the NRS through private philanthropy.

A single funding formula should be consistently applied with all proposals being assessed on their merits for funding of up to two-thirds of the total acquisition and establishment cost funded by the Australian Government.

Greater efforts should be made to achieve effective collaboration with other NRM bodies and programmes with increased emphasis on bioregional planning and achievement of biodiversity outcomes regardless of land tenure.

A robust management effectiveness framework should be devised for consistent application in all Australian jurisdictions. The Australian Government should take a lead role, facilitating the development of the framework, requiring its application in all reserves supported by NRS Programme funding and initiating a rolling schedule of audits to verify delivery of biodiversity results over time.

Specific Recommendations

6.1 Achievements and status of the Programme

6.1.1 The NRS Programme has been a very successful programme in raising awareness among both government and non-government players about the importance of achieving a CAR system of reserves that encompasses both public and private land and should be further supported for maintaining this activity.

6.1.2 The NRS Programme should be reinstated as a national programme focused on accelerating the reservation and protective management of bioregionally significant lands.

6.1.3 Consideration should be given to re-badging the NRS Programme to more clearly identify its role in delivery of the NRS in a national context.

6.2 Programme Funding

6.2.1 NRS Programme funding levels should be reviewed. Additional targeted funding from the Australian Government will be required if the Directions Statement target of 80% representation of regional ecosystems in the NRS by 2010–2015 is to be met.

6.2.2 NRS Programme acquisitions should be routinely funded by the Australian Government for at least two thirds of the total acquisition and establishment costs with flexibility to take advantage of three-way projects between a private proponent, a State or Territory Government and the Australian Government when opportunities arise.

6.3 Management Effectiveness

6.3.1 The application of national standards for protected area management should be given high priority and supported with strategic investment of NRS Programme funds.

6.3.2 In order to maximise their consistent application nationally, monitoring, evaluation and reporting mechanisms devised to give effect to the management effectiveness framework should be simple, robust, focused on outputs and outcomes rather than inputs, and if possible, should be accredited to an appropriate Australian Standard.

6.3.3 Within the management effectiveness regime adopted there should be provision for rolling audits of NRS reserves with at least 30% of the reserves audited every 5 years.

6.4 Assessment Criteria

6.4.1 The Comprehensiveness, Adequacy and Representativeness (CAR) criteria should continue to be used for the purpose of planning and assessing acquisition proposals by the NRS Programme.

6.4.2 The CAR criteria should be more clearly articulated and communicated, especially to explain the scope and components of the Adequacy criterion so that resilience and connectivity elements are addressed. Adequacy of the NRS and its assessment should continue to be improved as indicated in the Directions Statement.

6.4.3 Assessment of all NRS Programme proposals should be on their merits with respect to the principles set out in the 1999 ANZECC *Australian Guidelines for Establishing the National Reserve System* or later versions and the definitions and principles outlined in the *Directions for the National Reserve System – A Partnership Approach*, including social and economic impacts.

6.5 Integrated Policy and Landscape Management.

6.5.1 NRS Programme staff should formalise regular dialogue with relevant NHT and DEH programmes and activities (e.g. EPBC processes) and this should include exploring synergy between the NRS Programme priorities and the capacity of regional organisations to assist with NRS Programme implementation.

6.5.2 NRS Programme and State and Territory programme partners should enhance and recognise their collaborative policy and flagship role in protected area establishment and management. This would include improving scientific and technical information and data sharing.

6.5.3 The NRS Programme should explore strategic partnerships, involving State and Territory conservation agencies, along with key conservation NGOs, local government and key industry groups for the implementation of the Directions Statement and NRS Programme priority targets.

6.5.4 The NRS Programme should maintain its emphasis both on the primacy of the public reserve system via partnerships with State and Territory agencies for securing conservation outcomes for the NRS, and on the emerging importance of partnerships with Indigenous, NGO and other private land holders to complement and extend these outcomes where possible.

6.5.5 In this context, the NRS Programme should continue to seek and support mechanisms for achieving conservation outcomes on private lands, such as those provided by the Protected Areas on Private Land (PAPL) project, and to further adapt and evolve these mechanisms as necessary to achieve the desired biodiversity outcomes.

6.6 Protection Mechanisms

6.6.1 NRS Programme funds should be allocated towards acquisitions that provide the highest possible order of protection and sustainable management.

6.7 Communication

6.7.1 Consistent with the Directions Statement, the NRS Programme should continue to develop and implement its communications strategy and support activities for maintaining high levels of community awareness of, and effective community involvement in, the NRS and NRS Programme.

6.7.2 The NRS Programme Communications Strategy should include regular updating of the NRS Programme website and publicity detailing the achievements of the Programme.

6.7.3 The NRS Programme should encourage and, where necessary, fund research and provide information on the costs and benefits to local and regional communities of protected areas throughout Australia.

6.8 NRS Programme coverage of aquatic ecosystems

6.8.1 The scope of the NRS with respect to freshwater ecosystems should be clarified and given priority so that the obligations in the Directions Statement can be fulfilled.

6.9 Indigenous Protected Areas

6.9.1 The major contribution to the expansion of the NRS made by Indigenous Protected Areas (IPAs) should be clearly communicated.

6.9.2 The NRS Programme should facilitate engagement of State and Territory agencies and other potential partners with IPA owners and managers so that their contribution to the NRS is recognised and supported.

6.10 Programme Management

6.10.1 The NRS Programme should be staffed and structured so that appropriate attention can be given to all three strands of Programme activity: facilitating bioregional planning; strategic acquisitions and land agreements; and the development and consistent application of high standards of on-going management of reserves.

6.10.2 Communications with prospective proponents and key stakeholders should be improved to enhance the effectiveness of the NRS Programme.

6.10.3 An annual timetable for receiving and processing proposals should be implemented to enhance NRS Programme efficiency while recognising the need for flexibility to deal with urgent proposals if they arise.

6.10.4 There should be clear communication of reasons for decisions and feedback to proponents on assessment of applications for funding to maintain the transparency of the NRS Programme.

6.10.5 NRS Programme objectives should be precisely articulated to specify the place of the NRS Programme in the Directions Statement. These objectives should be embodied in a Strategic Plan which drives the NRS Programme in its next phase of operation.

7. References

Photo credits ***Left:*** *Sand dune with Triodia tussock at Cravens Peak Nature Reserve QLD, Australian Bush Heritage Fund – Nick Rains.* ***Top:*** *Shearers' quarters at Boolcoomatta Nature Reserve SA, Australian Bush Heriatge Fund – Wayne Lawler.* ***Middle:*** *Native hibiscus, Anindilyakwa IPA – Steve Strike.* ***Bottom:*** *Pioneer heritage, Boolcoomatta Nature Reserve SA – Wayne Lawler.*

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Attachments

Attachment 1

NRS Programme Evaluation – Terms of Reference

Background

The National Reserve System Programme is a priority activity of the National Investment Stream under the Australian Government's Natural Heritage Trust (NHT).

The objective of the National Reserve System Programme is to develop Australia's National Reserve System. Implementation of the National Reserve System Programme also addresses the requirement under the *National Strategy for the Conservation of Australia's Biological Diversity* for establishment of a comprehensive, adequate and representative system of terrestrial protected areas.

Evaluation of the Programme

An evaluation of the National Reserve System Programme has been agreed to by the Minister for the Environment and Heritage. The evaluation will consider:

1. the extent to which the Programme has contributed to meeting Australian Government policy priorities to date; and
2. capacity for enhanced achievement of Australian Government policy priorities by the National Reserve System Programme, including delivery of conservation, economic, cultural and social benefits in the context of sustainable natural resource management at landscape, regional and national scales.

The evaluation will contribute to ongoing development of the National Reserve System under the *Directions for the National Reserve System – A Partnership Approach*. The Directions Statement was approved by the Natural Resource Management Ministerial Council in May 2005. A copy of the Directions Statement is available at: *http://www.deh.gov.au/parks/publications/nrs/directions/index.html*

Objectives of the Evaluation

1. Evaluate progress of the National Reserve System Programme in achieving its objective of developing Australia's National Reserve System, including key strengths and any weaknesses in implementation to date.
2. Identify opportunities for the National Reserve System Programme to contribute to future delivery of Australian Government's policy objectives for conservation and sustainable natural resource management at landscape, regional and national scales.

Scope

The evaluation will assess progress of National Reserve System Programme implementation to date, and will address the following broad issues:

- the extent to which the Programme is achieving its objectives;
- the appropriateness, effectiveness and efficiency of the Programme; and
- the extent to which the Programme links with the delivery of conservation, economic (including tourism), cultural and social benefits.

Possible Questions - Appropriateness, Effectiveness, Efficiency

Appropriateness *– the extent to which outcomes align with and achieve government priorities and policies:*

1. Which Australian Government priorities and policies is the NRS Programme aligned with?
2. Are outcomes of the NRS Programme to date consistent with these priorities and policies?
3. Do outcomes of the NRS Programme adequately achieve these priorities and policies?
4. To what extent is the NRS Programme an appropriate funding mechanism to achieve biodiversity conservation benefits, considering the role of other NHT programmes?
5. To what extent is the NRS Programme an appropriate funding mechanism to achieve economic, cultural, social and community benefits in the context of other NHT programmes?
6. Are there alternative and/or additional strategies and opportunities for NRS Programme that could be used to meet these priorities and policy needs, including in the context of any future continuation of the NHT?

Effectiveness *– the extent to which outcomes are achieving required objectives:*

1. To what extent has the NRS Programme met its objectives?
2. Are these objectives still appropriate or do they need to be reviewed?
3. What outcomes has the NRS Programme achieved against current performance indicators?
4. Are the current performance indicators still appropriate or do they need to be reviewed?
5. Have there been any unintended consequences (positive or negative) of the NRS Programme?
6. What linkages exist between the NRS Programme and other relevant Commonwealth and State or Territory initiatives and programmes (including the IPA programme and other NHT programmes)?
7. Are these linkages effective?
8. How does the NRS Programme compare as a tool for biodiversity conservation with other NHT measures, including with regard to conservation effectiveness for species, communities and ecosystems under threat?
9. Is there scope for greater integration or rationalisation between NRS Programme and other NHT programmes or other relevant Australian Government initiatives?

Efficiency *– the extent to which outputs are maximised in relation to input:*

1. To what extent have NRS Programme inputs been minimised and outputs maximised for achieving its outcomes?
2. How does the NRS Programme compare as a tool for biodiversity conservation with other NHT measures with regard to transaction costs and cost efficiency?
3. How does the NRS Programme compare with other NHT measures in terms of leveraging funds for biodiversity conservation?
4. What is the impact of the NRS Programme on costs borne by the Australian Government, other governments, other stakeholders and the community?
5. Have there been delays in implementation of the NRS Programme to date?
6. Have there been overspends or underspends in the years of the NRS Programme to date?
7. Have measures been identified to avoid future delays in implementation and overspends or underspends in future budget years?

Attachment 2

Economic assessment of the impacts of protecting ecosystems and biodiversity

Economics is concerned with how resources can be allocated to end uses so as to maximise community welfare. In considering *efficiency* measures for the NRS Programme, resources can be thought of as the *inputs*. The welfare of society is increased if available resources can be allocated to end uses of higher values. The changes in value (conservation values) represent the *outcomes* of the NRS Programme.

Note that the assessment presented in this attachment has considered the *inputs* of the Programme in terms of society resources, as distinct from the budget for the NRS Programme within the broader NHT funding allocation. In fact there is a wide disparity between the society resources used and the NRS Programme budget, and in large part this reflects the funding arrangements with the States and Territories (currently on a 1:1 basis but previously 2:1). In addition, the contribution by proponents towards the purchase price of land reflects the success (referred to in section 4.3.4 in the body of the report) of the NRS Programme in leveraging contributions by NGOs and individuals.

The assessment in the first two sections below follows the approach adopted in social cost benefit analysis, focusing on resources and social welfare. The third section explores the implications for host communities in a broader scope.

2.1 Inputs

Costs for the resources used for the administration of the NRS Programme are discussed below.

The primary resource associated with the NRS is land, whether acquired outright for conservation or where restrictions are placed on the allowable activities to promote conservation outcomes. The major costs associated with this resource are realised through the foregone opportunities for the land under alternative uses in the absence of the NRS, in particular those productive uses that generate a commercial return, such as farming. To protect ecosystems, these commercial activities either stop completely, or there is a reduction in the scope of the activities or additional costs are incurred. These kinds of impacts are referred to by economists as the *opportunity* costs associated with the land when used to generate conservation outcomes: society foregoes the opportunity (at least in part) of having the land in productive use.

Direct costs

There may also be direct costs. These are associated with the management of the land to protect the conservation values and include, for example, fencing to keep livestock out of sensitive areas or the costs associated with controlling animal pests and weeds. There are also broader management costs such as inspections to control inappropriate activities in the conservation area. The costs of managing protected lands for their conservation values is a major issue since NRS Programme funding is restricted to land acquisition and some limited establishment costs in the case of non-government proponents.

It is possible to provide estimates of the value of the resources used. In the case of the direct costs, the resources used (including labour) are generally provided through markets where goods and services are bought and sold freely with minimal distortions. Under these conditions, it is valid to use the market prices paid for the goods and services as a measure of the true cost of these resources.

There is no good information available on management of protected areas. The entries in Table A2.1 are extracted from Tables 2 and 3 of the WCPA Submission to the Senate Inquiry into the Funding and Resources Available to Meet the Objectives of Australia's National Parks, Other Conservation Reserves and Marine Protected Areas. The estimates have been sourced from annual reports of the State and Territory parks agencies and this would include costs not directly related to natural area management.

Table A2.1: Expenditure on National Parks (A$/hectare)

	Qld	NSW	Vic	WA	Tas	SA	NT
1997–98	4.35	24.80	9.60	1.82	10.40	0.73	4.40
2004–05	15.67	35.17	26.02	3.08	8.90	6.80	N/A

While there is considerable variation across jurisdictions, the entries provide an indication of the magnitude of the costs involved with the management task. For example, even adopting a relatively modest figure of $10 per hectare would result in an aggregate cost for all NRS Programme lands of $65 million.

Land costs

It is tempting to adopt a similar approach for land acquired for inclusion within the NRS and where no further commercial activity is allowed. The approach takes the going market price of a property as a measure of the opportunity cost, reflecting the net value of production from the land foregone in the future, after subtracting other costs of production and the farmer's 'surplus'. Inherent in such an approach are a number of assumptions, including:

- that the land has been purchased under market conditions (that the price paid has not been affected by the knowledge that the land is to be reserved for conservation purposes);
- that the price of the land is not overly sensitive to government taxes or subsidies faced by the owner; and
- that the market is well informed about the future earning capacity of the land and the risks involved.

If the NRS Programme acts like any other potential buyer, then the price paid for land is the market price. It would seem that this has not been the situation in the past. In aggregate, the area of land acquired under the NRS Programme is 6.4 million hectares at a total price of $150 million (including proponent funding), or $24 per hectare on average. But the average is misleading since it is distorted by large properties acquired at very low per hectare prices (below $1 per hectare in one case), for example, 6.2 million hectares (98% of total NRS Programme lands) cost in aggregate $50 million (34% of NRS Programme expenditures).

The above computations have used the prices paid at the time the land was acquired and these are expressed in dollars of the day. It is known that the price of farms has risen steeply in recent years, and the current average price for broadacre farms is somewhat in excess of $300 per hectare (source: ABARE 2005). The discrepancy cannot be explained by changes in the price of farms. Broadacre farms have doubled in price since the beginning of the NRS Programme, most of this increase occurring since 2002.

This suggests that much of the land acquired under the NRS Programme has been purchased at less than market rates or that the NRS Programme-assisted properties had reduced commercial market value, due to being run down. This may put further cost pressures on the agency responsible for managing the land for conservation.

Particularly in the case where land is not acquired outright, covenants on the land may still allow a certain level of productive activity and the opportunity cost of the resource is the market price of the land less the net return from the residual activity allowed under the covenant. This is rather more data intensive to estimate.

Reduction in costs due to ecoservices

Importantly, the market price of land cannot be expected to take into account the full non-market consequences from the commercial activities that take place in the absence of the NRS. For example, removing native vegetation to increase the area for cultivation or pasture may have off-property impacts such as changes to the depth of the water table and consequent risks of salinity. Avoidance of these off-site impacts by maintaining, or even rehabilitating, ecosystems can be considered as benefits, but for the purpose of the NRS Programme evaluation it seems more natural to treat them as a reduction in the costs of conservation programs.

Agriculture and grazing, and the attendant activities that change land form and vegetation cover, have been implicated in a number of adverse environmental impacts. Where land is placed under conservation instead of productive use, the environmental damage can be avoided or even reversed in cases where the management of NRS lands involves rehabilitation. Examples include (with the financial costs of the off-site impacts):

- erosion and off-site silting – increased cost of clean up and water treatment;
- impacts on water table and salinity – loss of agricultural production, damage to infrastructure;
- pollution of waters due to fertilizer and pesticide use – increased water treatment;
- loss of vegetation used by bees for collecting nectar – reduced honey production; and
- greenhouse implications – carbon tax payments or need to purchase carbon credits (if such a scheme is introduced).

Some of these benefits are commonly grouped under the heading of *environmental services or ecoservices*. The CSIRO with funding from the Myer Foundation is in the middle of a major project investigating the environmental services delivered by natural features such as the retention of native vegetation (refer for example to Cork 2003 in the bibliography or the website http://www.ecosystemservicesproject.org for more detail). For a global perspective on the reduction in ecoservices provided by degraded environments see Millennium Ecosystem Assessment (2005: chapter 3, page 490.

The way in which land management practices can affect environmental services, the magnitude of the effects and the value to the community are highly site specific. Four case studies are underway as part of the CSIRO project, with the case study in the Goulburn Valley in Victoria the most advanced.

The literature contains other papers on the value of environmental services and how they can be affected by human activities. Examples include Lockwood et al (2000) who found that in two areas investigated, remnant native vegetation delivered net on-farm benefits under existing management regimes, but would become financially unattractive under more conservation oriented regimes. This conclusion is reversed when what they term *catchment benefits* (analogous to off-site benefits) were taken into account. A more broadly based study is presented in Possingham et al (2002) and a summary of their findings are given in Table A2.2. It is emphasised that these are estimates for the average impact from conservation and may not apply to all lands within the NRS.

Table A2.2: Benefits from sustaining natural systems

Collateral benefit	Estimate of value
Dryland salinity	$110 per ha pa
Soil erosion	$10 per ha pa
Carbon sink	$1,400 per ha bush
Clean water	$230m pa
River salinity	$46m pa
Water regulation	Road damage - $45m pa
Pollination	$1b pa
Tourism	$6.6b pa total
River recreation	$259,200 per 10 km river
Landscape aesthetics	$226,800 per 10,000 ha

Source: Possingham et al (2002)

Given that environmental services from conservation activities have expressly financial outcomes suggests that it may be in the interest of the beneficiaries of the services to pay a landowner to manage his property in such a way that the services are optimised. This gives a direct incentive for landowners to follow certain management practices of a conservation nature. The choice of a payment mechanism has received considerable attention both in the CSIRO report and in Murtough et al (2002) under the rubric of *market based instruments*. However, we are not aware of any practical examples of financial compensation for environmental services.

The Productivity Commission has argued strongly for replacing the current reliance on statutory controls on clearing of native vegetation in each of the jurisdictions, and more scope for economic agents to enter mutually beneficial agreements that optimise the extent and quality of native vegetation.

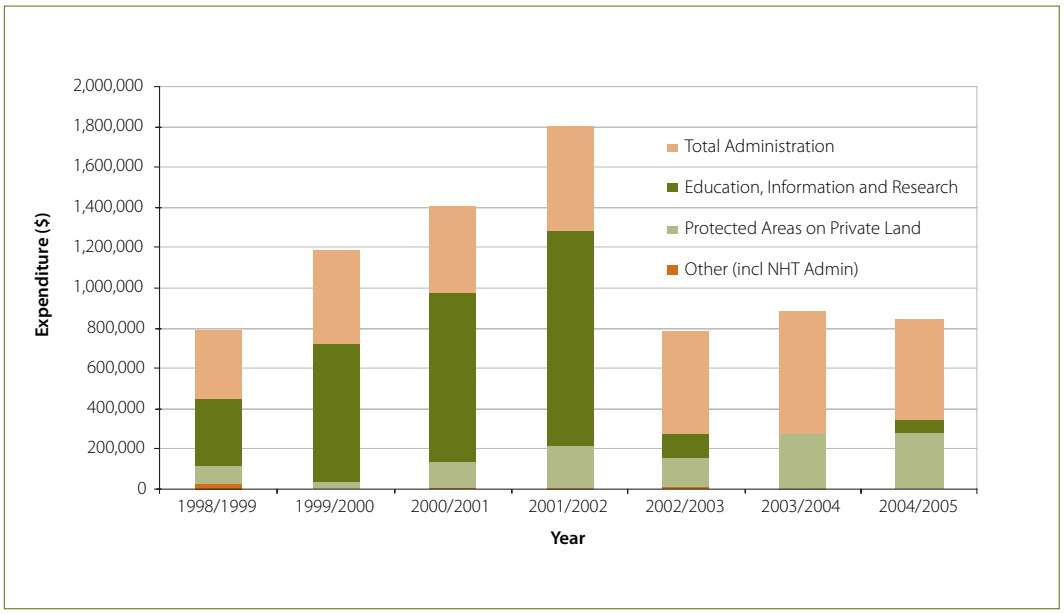
NRS Programme administration costs

The resources used for NRS Programme administration constitute a form of overhead in that, while obviously necessary, they do not contribute directly to achieving conservation aims.

Generally costs of administration seem quite reasonable, of the order of $300,000 to $600,000 per annum. This includes costs for specialist legal services in projects where complexities are present.

NRS Programme staff have indicated that there is a disproportionate requirement for staff resources for non-government proposals, and suggested that the increase may be as high as ten times.

Figure A2.1: Non-acquisition expenditures for the NRS Programme



Source: Unpublished NRS Programme account figures

2.2 Outputs

As indicated above, the outputs of the NRS Programme are the enhanced conservation outcomes in terms of protection of ecological systems and biodiversity. The measure of the outputs is the value that society places on the improved conservation outcomes.

The focus of the NRS Programme is to conserve biodiversity and protect ecological systems. The output from NRS Programme action in regard to a specific parcel of land is actually the difference in the level of biodiversity if the land is acquired under the Programme with the level of biodiversity that will occur otherwise. This difference in the levels of diversity is determined by two factors:

- the existing level of biodiversity (the starting point); and
- the reduction in the threats to biodiversity if the land is acquired under the NRS Programme.

Ideally it would be possible to quantify the existing level of biodiversity or, even better, to derive some measure of the society value of biodiversity. Despite some heroic attempts, it seems fair to say that there are no accepted methods for either quantifying or valuing biodiversity, and no estimates are provided for this review. For example, DEH and Land and Water Australia (2005: page 13) in discussing the literature on valuation of biodiversity point out:

'The applications of [biodiversity valuation] methods have mostly concentrated on species and habitat protection. While most studies claim to yield values for biodiversity, there is little recognition of the complex relationship between biodiversity and the scale of the biological resource. Hence the values reported are not estimates of biodiversity per se, but rather of the species/ecosystem being studied. Very few studies have targeted the value of ecosystem resilience as the specific result of biodiversity protection activities.'

The DEH and Land and Water report also identifies the following factors as reasons for the small number of studies in Australia and the limited policy significance:

- lack of biophysical information to support biodiversity valuation;
- ethical concerns about valuing environmental impacts in monetary terms; and
- technical concerns on the methodologies used for making valuation estimates.

Importantly, the matter of conservation values is fundamental in the NRS Programme as expressed through the CAR criteria. Lands are accorded a high priority for conservation to the extent that they offer high value in regard to the ecological systems and the biodiversity these systems support. High priority is accorded to reserving examples of scarce ecological systems and the lack of representatives in the NRS.

A second consideration in prioritising land for acquisition is the level of threats to the examples of an ecological system, through agriculture or other human activities. The existence of serious threats introduces a sense of urgency to preserve examples before the ecological systems are lost or damaged. Irreversible damage is of particular concern but, even where rehabilitation is possible to an extent, the costs are generally much greater than the costs of avoiding the damage in the first instance. The Directions Statement mentions a figure of seven times for the ratio of costs of rehabilitation to preservation, and while this must be regarded as a ballpark estimate, it does give an idea of the order of magnitude of costs. And in view of gaps in the current understanding of ecosystems and their dynamics, it is not possible to be confident that rehabilitation has been effective.

Thus it can be seen that the process for allocating funds within the NRS Programme appears to have less to do necessarily with the intrinsic values of various ecological systems and the biodiversity they support. Little effort is given to determine that ecological system type A is more valuable than ecological system B (however 'valuable' is defined). Rather, the emphasis of the NRS is to ensure that all significant types of ecology remain represented in Australia in the future. In economics parlance this approach to conserving ecosystems has been sometimes referred to as 'option value' – leaving open certain opportunities in the expectation that greater understanding of the true value will be derived in the future.

Of course, there may be significant differences in the condition of the property (in terms of damage to ecological values) between examples of the same ecosystem type in terms of the extent of deterioration due to human activities and this is factored into the decision making process.

The above discussion should not be taken to imply that the public does not regard the extinction of species (or loss of ecosystems) as a serious loss. In fact, the public's concern with species loss as a consequence of human activity may be adduced from the frequency with which statistics are quoted in the mass media. However, preservation of biodiversity is a much wider concept than extinction of individual species.

Amenity benefits

Areas of undisturbed land are generally visually pleasing. In some cases, for example where there is some specific item of interest, the visual appeal is dependent on retaining the 'natural' landscape.

There has been substantial research on the wide range of health and well-being benefits for people when they interact with nature. Maller et al (2002) provide an annotated bibliography of significant work in this area. The introduction to this paper provides a summary of major research findings that point to an enormous range of potential health and wellbeing benefits from contact with nature. The benefits identified include crime reduction, fostering psychological wellbeing, reducing stress, boosting immunity, enhancing productivity, promoting healing in psychiatric and other patients, reducing blood pressure, heart rate and cholesterol, and fostering spiritual development, among any others.

Undisturbed areas also provide opportunities for a range of recreational pursuits, though, depending on the form of the recreation, this may pose risks for the conservation values being preserved. This is key issue. On a more passive note, retention of native vegetation can provide shade for stock and humans.

Because of the attractions of natural areas, it can be expected that the number of visitors will increase relative to the case where the land has not been protected. These visitors will have an impact on the local and regional community, and this is discussed in the next section. However, the benefit or output in terms of the NRS is realised through the enjoyment of the visitors to the area: measures such as increased spending are difficult to interpret in terms of 'resources' and 'social welfare'.

Finally, people place an 'existence value' on knowing that particular natural areas have been preserved, even though they may never visit these areas. Of course, the highest existence valuations are associated with iconic attractions such as the Great Barrier Reef, Kakadu National Park and the Tasmanian Wilderness World Heritage Area. However, there is little doubt that the lands conserved under the NRS would be considered of great value in aggregate by many Australians. A number of submissions (for example, Victorian Department of Sustainability and the Environment, submission 24) suggested that the achievements of the NRS Programme should receive much higher prominence through an enhanced web site and other means.

2.3 Impacts on the regional economy

The discussion to date has focused on the resources that are consumed in order to protect areas of conservation, and whether the costs of these resources are outweighed by the benefits (difficult as these are to quantify). The consumption of these resources and alterations to the use of land have flow-on impacts that are too complex to incorporate in the type of analysis outlined above, and accordingly are discussed separately in this section.

Impacts on the regional economy

There are two sources of added activity in the economy due to conservation activities. The first source is the additional spending by new visitors that are attracted to the region. The second source is money provided by the proponent to undertake works as part of the establishment or management of a conserved area. On the

other side of the ledger, changing land use means losing the contributions to the regional economy due to the commercial activity previously undertaken on the property.

Spending by visitors

Decisions to visit a region tend to be complex. It is unusual for a trip to be made for just one reason. Visitors who spend time at lands within the NRS may have visited the region in any case because of other attractions, or they may have been passing through. It is correct to include the direct expenditures associated with the NRS lands as a benefit in contributing to the regional economy. But it becomes rather more problematic in regard to other visitor spending (accommodation, food and drink, transport).

That said, there is a lot of attention these days paid to nature or ecological tourism. This is a much abused term, but the NRS considered as a whole could be regarded as a major support for genuine ecological tourism. One of the attractions of Australia to international tourists is the existence of unspoiled areas that are uniquely Australian. The steady loss of such areas may eventually damage the perceived attractiveness of Australia for many potential visitors.

Given that the existence of local attractions due to the NRS and NRS Programme activities increases the number of visitors how may this impact be measured? The simple answer would be the increase in the level of economic activity, but what is the most meaningful measure for this?

What is most meaningful is to understand how much 'better off' the community is as a result of the increased number of visitors. The most immediately available information relates to visitor expenditures, but these are rather poor indicators of community impacts since they fail to take into account indirect (or flow-on) economic impacts and the extent to which visitor expenditures 'leak' from the local economy due to the need to import goods and services.

There have been a considerable number of studies undertaken to measure the impact on a regional economy of some tourist attraction. The common approach is to take data on visitor expenditures (possible from a visitor survey) and apply 'multipliers' to generate estimates of the impact on value added (regional product), household income and employment. The multipliers are generally based on an input-output model which is a shorthand representation of the linkages between different parts of the regional economy.

The confidence that can be given to the use of multipliers in this way depends on a number of assumptions regarding how the economy would respond to changes in the level of an activity, including the addition of a new activity (or the removal of an existing activity). There is also the uncertainty in the case of a tourist attraction of estimating to what extent regional visitations are determined by a specific attraction.

Typically, visitor expenditures can run to $80 to $100 per person per day (Carlsen and Wood 2004 and Gillespie 2003). For the more remote NRS conservation areas, these estimates may overstate the true expenditures. The reason is that many of these visitors are campers or people in caravans, and so their accommodation costs are likely to be low (camping fees). Also they are unlikely to spend as much as the 'typical' tourist on items such as restaurant meals and drinks, organized tours or other attractions, and souvenirs (this may change in the future, but a review of management plans suggests that currently the services on offer are fairly basic and likely to attract mainly the more independent visitor).

Thus the more likely items for purchase are fuel and grocery items. The expected daily expenditures are considered to be of the order of $30. Most of these items are not manufactured in the region (there may be some production component in the price of take-away food for example), and the main value to the community comes as the retail mark-up. Typically this may be 30% of the price, so that each visitor could provide a net $10 to the region. It is emphasised that this is at best a very rough estimate and there will be wide variations across conservation areas in the NRS.

The next question is how many new visitors can be expected to come to the region as a result of a conservation area? The management plan for the Gluepot Reserve (see case studies) demonstrates that it is possible to generate additional visitation by providing appropriate facilities and increasing the public profile. To date there has been an increase of some 2000 visitors per year (from a base of 1000) staying approximately 3 nights, or 6000 additional visitor days. At $10 per day, this represents an additional $60,000 per year for residents in the region.

Loss of existing economic inputs to the community

Much of the acquisitions for the NRS have seen farm land retired from agricultural or pastoral use. This results in loss of income for the community.

In assessing to what extent the NRS and NRS Programme activities contribute to other economic policy objectives, it is necessary to take into account the loss of the productive activity on the lands to be protected. Detailed assessment of the value of the lost production is beyond the scope of this review and instead results are presented based on analysis of farm surveys reported in ABARE (2005).

The financial returns from farming activity are cyclic, determined by climatic conditions on the supply side, and the prices obtained for farm produce on the demand side, and farmers have little control over either. ABARE (2005) presents results for the years 2002/03 to 2004/05 (provisional estimates). Whether these reflect future long term returns is impossible to state with any degree of confidence.

Table A2.3: Rates of return (%) from different products on farming properties

	2002–03	2003–04	2004–05
Wheat and other crops	1.5	5.5	1.1
Mixed livestock and crops	0.5	2.4	1.7
Beef industry	-1.7	-0.5	1.2
• with less than 300 beef cattle	-6.6	-3.9	-2.4
• with more than 300 beef cattle	-0.2	0.7	2.1
Sheep	-1.1	-0.6	-0.2
• with less than 3000 sheep	-3.7	-3.2	-3.0
• with more than 3000 sheep	-1.3	1.5	1.3
Sheep-beef	-0.3	0.2	0.6
All broadacre industries	-0.7	1.5	1.0

Source: ABARE (2005)

The rates of return are considerably lower than the returns available say from investments in shares on the stock exchange. In part this is due to the effects of the recent and continuing drought conditions, but also of the rapid rise in property prices (which is the denominator and so has the effect of depressing the rate of return). The rate of return for a land owner in fact would be higher because of the additional capital appreciation. (ABARE (2005) estimates that this brings the rates of return up to the range 8% to 12%. However, for the purpose of this discussion on returns, the contribution from capital appreciation to income has been ignored.

Table A2.4: Farm cash income and farm capital ($000 per farm) for different products

	Farm cash income			Farm capital	
	2002–03	2003–04	2004–05	2002–03	2003–04
Wheat and other crops	387	476	379	2447	2673
Mixed livestock and crops	302	356	328	2271	2806
Beef industry	197	203	211	2341	2466
Sheep	185	162	176	1808	1846
Sheep-beef	221	245	286	2264	3261
All broadacre industries	258	281	267	2245	2503

Source: ABARE (2005)
Note: No estimates of farm capital for 2004/05

Farm cash income is the total quantum of economic activity generated by the farm and available (at least in the first instance) to be spent in the regional economy. Farm capital excludes plant and equipment but includes stock. Average price of land used for broadacre farming was approximately $320 per hectare in 2003-04. It can be seen that annual farm cash income on average represents about 10% of farm capital. In the case of Gluepot Reserve with a purchase price of $600,000 the value of the farm would now be double or approximately $1.2 million, the foregone farm cash income would be $120,000 per year.

On-site management activities

Gluepot Reserve is managed largely through the efforts of volunteers, who put in an average of 22,000 hours per year, much of this presumably on site. It would seem reasonable to assume that there would be no less than 1000 person days spent on the reserve so that total visitation is 7000 person days. Other visitors would include those undertaking scientific research.

For government reserves, there will be spending on management and related activities. In the case of rangers residing in the region, the economic impact can be taken as equivalent to an additional resident. Even where a ranger is not resident, it can be expected that he or she will make a number of visits per year and the local community will benefit from any incidental expenditures.

Works undertaken on the reserve will also generate benefits for the local community through opportunities for employment to local workers, hire of equipment and contracting. These are activities that have a high value added component and this is the most appropriate measure for the impact on the community.

Commentary

In the case of the Gluepot Reserve the above analysis suggests that the expenditures associated with farming may have exceeded those from campers since the property was purchased using NRS Programme funds. It must be emphasised that this analysis has been conducted using averaged estimates of farm prices and returns and in practice the returns and expenditures will be site specific.

The gains in economic activity from increased visitation need to be viewed in context. The use of labour or other resources is in fact a cost to the community. The benefit for the community comes about when these costs are paid for (plus a profit) from an external source. However, inevitably there are services provided that are not paid for directly and these are a drain on the community.

To support increases in visitation, the community may need to allocate resources, for example upgrading and maintaining roads, or collecting of waste. The use of these resources may in themselves generate economic activity, But when they are not paid for by visitors, they have a definite opportunity cost for the local community. For example, councils in areas of high tourist demand can often face substantial costs associated with tourism. This money could be spent on other council facilities or services to the benefit of the community. For councils with small populations (particularly those that cover large areas), diseconomies of scale may be significant.

Importantly, if the 'profit' from the added visitors fails to exceed the costs for supporting the eco-tourism activity, then the net result will be that the community as a whole has lost money. On purely financial grounds it should not have embarked on promoting the NRS land for tourism. In other words, looking at economic activity indicators by themselves is not a sufficient criterion to drive decisions on eco-tourism.

Of course the situation with each conservation area is different. At this time, at least, the eco-tourism activity with a number of the more remote NRS lands is low key. The impact on local infrastructure may be minimal at most. On the other hand, while the impact on local business may be small when compared to popular tourist sites, the importance of the extra spending may constitute a significant boost for local business.

In addition to, but sometimes associated with, the increased numbers of visitors, natural areas can also support various industries, particularly those of the bush tucker variety.

Social impacts

The NRS Programme is a government intervention in the patterns of land use. The changes in land use and the consequent economic flow-on effects can be expected to have a range of social impacts on the affected communities. The significance of the social changes will be a function of the extent that land acquisitions under the NRS Programme are concentrated within a local area, and the importance of the existing productive activities on the land acquired to the local economy, including any downstream value adding industry (for example food processing or packing of agricultural produce).

Change in whatever form it comes generally has winners and losers. Tonts et al (2001) examined the effects of changes in rural communities as a result of the introduction of agroforestry. While the scope is rather different (agroforestry is often dominated by large companies) some observations would seem to be relevant to changes in land use to conservation. A major finding by Tonts et al (2001) is that the winners tend to be those who have the opportunity to take advantage of the change and the ability to manage this to their advantage. On the other hand, the losers often have little flexibility and are locked into their current way of life.

Regardless of the eventual status as a winner or loser, many people resent and fear change for the uncertainty it brings[2]. In the case of the impacts of the NRS and NRS Programme activities, even though jobs may be found to make up for any that are lost due to reduced levels of agricultural production, the work will be unfamiliar. Some people may consider that the new work is not as conducive to their long held self-image. Conversely, some people may welcome trading the isolation, long hours and uncertainties of running a farm for a more 'normal' lifestyle. It certainly appears that people who agree to covenants on their property for conservation purposes have a deep attachment to a rural lifestyle and understand that the NRS is an avenue to maintaining this lifestyle.

The practical prospects for the NRS to deliver economic gains

It is certainly true that areas with conserved natural features are attractive for visitors. What is more difficult to estimate is how this attractiveness will translate into greater visitation and increased economic activity.

2 There is substantial empirical evidence to suggest that people value losses more than gains of nominally the same magnitude.

These days there are a great range of attractions that compete for the tourist dollar. If natural area-related tourism is to make a significant contribution to the local economy then it is necessary to understand the market that a region is selling its services into. The tourism market is far from homogenous, not even in the case of that much abused term eco-tourism. People who visit natural areas fall into a number of groups, for example:

- visitors who come for hunting or fishing activities;
- members of guided tours as distinct from individuals or small groups;
- people passing through and looking for not much more than a pleasant place for an overnight stop;
- people who want to observe attractions from the comfort of their vehicle, at most a short walk away;
- bushwalkers and overnight campers; and
- visitors with a genuine interest in wildlife and eco-systems.

The demand for on-site services and infrastructure by members of these different groups will vary, in terms of the provision of roads, walking tracks, camping and picnic facilities and the provision of interpretive material. The requirements for facilities outside the conservation area (but within the region) will also vary – campers for example are unlikely to make use of formal accommodation.

Many of the lands in the NRS are remote from major centres of population or high tourist demand, and they do not have a major tourist 'icon' to act as an attractor (see case studies). This reflects the fact that visitor attractiveness is not in itself an objective for the NRS and lands are selected for conservation on criteria that do not necessarily relate to the attractiveness for visitors. Under these circumstances, the prospects for substantial tourism revenues seem minimal, and any prospective investment faces considerable risks.

To generate any level of visitation is not a trivial task. The reservation and/or rehabilitation of an area with natural attributes is a necessary condition for eco-tourism, but it is in no way sufficient. It needs people with energy, vision and imagination, and understanding of the tourism business to create the visitor experience that may generate tourism revenues. Land owners and NGO personnel may well lack the last attribute.

And resources are required to meet this increased tourism demand. Resources are needed to promote the attractions, to install the hard infrastructure such as roads, and to develop guided tours. Management and financing issues for visitors to natural areas are the subject of a current study commissioned by DISR. WCPA (2000) also provides guidance on financing protected areas. The authors caution against too heavy reliance on taxpayer subsidies and philanthropy for financial support, and that the customer base has to be accurately defined. The report also emphasises the following principles:

- business plans should be developed within the overall context of the protected area management plan – this should avoid the generation of revenue becoming an end in itself;
- a business approach should be adopted; and
- both public and private revenue streams are important, linked respectively to public goods (such as protection of ecosystems and biodiversity) and private goods (use value).

There is also the question of how the tourism related activities are to be managed and the agreements between the owners of the land, the management structure and third parties such as tour operators. The case study for the Gluepot Reserve is illuminating in terms of opportunities and constraints for income generation. Visitors to the Reserve are required to bring their own water and remove their rubbish. Visitors have never left rubbish behind, and no act of vandalism has occurred on the Reserve in six years of operation. A survey of Gluepot's campers in 2002–03 indicated that most people did not want to see an increase in camp ground

infrastructure. However, it might be argued that while the facilities remain at their current rather primitive level, there is not that much scope to attract a large increase in visitor numbers. And the additional visitors may not have the same sense of responsibility and care for the Reserve and its facilities, putting at risk the ecological features and values (and reducing the enjoyment of the current visitors).

2.4 Case studies

The purpose of the case studies is to bring out some of the economic concepts in regard to impacts on regional economies in a concrete way. The case studies selected here highlight the variation across lands in the NRS Programme and the difficulties in arriving at quantified impacts at a whole-of-Programme level.

Gawler Ranges National Park

Gawler Ranges National Park is located centrally on the far northern Eyre Peninsula in SA, approximately 600 kilometres north-west of Adelaide by road.

The NRS Programme initially contributed $813,000 towards a total cost of $1,223M for Paney Station (120,000 ha), and a further $153,000 out of a total of $254,000 for an additional 46.650 ha (part of Scrubby Creek Station) in 2000/01.

The Management Plan (2005) states: 'It is anticipated that Gawler Ranges National Park will provide a key focus for tourism in the northern Eyre Peninsula region. It is therefore important that the park is developed and marketed as part of a regional tourism strategy that maximises benefits to the local economy. 'The Park has spectacular …

The Management Plan envisages five major 'development sites' within the Park, mainly associated with existing buildings from Paney Station. Minor developments are also planned but the intention is to minimise development so as to maintain the present sense of isolation. The remainder of the Park will have a Conservation Zoning.

Areas that have been used in the past informally for camping will be retained and upgraded as necessary to meet demand. Cycling will be allowed along the made roads but not horse riding. A fee will be charged for day visitors and campers. The potential for commercial tours is being evaluated (commercial operators need to hold a licence) as well as possible small scale accommodation in existing buildings as has occurred in the past.

No statistics on visitor numbers are available.

Culgoa National Park

Culgoa National Park is located in north-western NSW, 40 km west of Goodooga and 100 km north of Brewarrina. The park was reserved in 1996 and has an area of 22,430 hectares.

In 2003/04 the NRS Programme contributed $450,000 out of a total of $1.23M for 18,600 ha for Ethabuka and later in 2004/05 an additional $510,000 out of $1.13M for 11,500 ha for an extension to the Park.

Culgoa National Park offers visitors a rare opportunity to experience a remote northwestern floodplain and significant examples of Indigenous and European culture. Basic visitor facilities are available in the park. These include a day-use area, walking tracks, interpretive information and camping area.

Promotion of the park currently exists as information on the NSW NPWS web page, visitor guide, a park information brochure and interpretive displays in the Bourke and Cobar offices and in the park. The park has the potential to be a valuable educational and recreational resource for local schools, community groups and the general public. Future promotion will focus on the parks natural and cultural heritage, visitor facilities, recreational opportunities and special events.

The feasibility of upgrading the Byerawering shearers quarters for visitor accommodation and the shearing shed for an environmental study centre will be investigated. Cycling will be permitted on vehicle and management roads. The possibility of a loop road for self-guided tours is being investigated.

Due to the remoteness of the park, harsh seasonal conditions (including the flooding of the Culgoa River) and types of activities available, low levels of visitation are expected to continue. Much of this is from the local community and would add little to economic activity in the region (what expenditures there are on visits to the Park probably displace spending on other items, though to the extent that in the absence of the Park local residents would travel more, then this represents a gain to the regional economy).

Glassons Grassland

The reserve is one of the best remnant grassland sites left in northern Victoria (40kms from Echuca); it is also highly significant in the local area, as it contains one of the few never-cultivated paddocks left in the district.

The NRS Programme contributed $71,400 out of a total purchase price of $136,400 for 170 hectares. The proponent was the Trust for Nature (Victoria) who manage the reserve.

Glassons Grassland Reserve is unusual in that grazing (of sheep) as a commercial activity will be allowed subject to requirements to minimise the risk of introducing exotic weeds. Grazing will not be allowed at certain seasons or under certain weather conditions, and there are strict limits on stocking rates.

Whatever its scientific and ecological values, it seems unlikely that grasslands on a plain would be highly attractive to tourists. In fact the Management Plan indicates that the Reserve will not be open to the general public. Access will be permitted to special interest groups for conservation, scientific and education purposes. In particular, access will be permitted for groups that have an interest in nature conservation and are able to make some contribution towards management of the property through information, research or support (such as flora or fauna surveys). Fox hunting by gun clubs may be authorised as a means of controlling the fox population.

It can be seen that with limited visitor numbers the Reserve is unlikely to contribute in a major way to the regional economy.

Mole Creek Karst National Park

Located on the slopes of the Great Western Tiers in northern Tasmania, the Mole Creek Karst National Park and Conservation Area protects a relatively small part of an internationally significant karst system. The park is a disjointed, noncontiguous reserve with the majority of the karst system outside the current park boundaries. According to the management plan, the conservation area at present lies outside the park but the intention is to proclaim it as part of the park in the near future.

The initial purchase of 68ha in 1998/99 cost $132,800 (NRS Programme contribution $67,000) and this was followed by a further 19 ha at a price of $72,000 (NRS Programme $47,000) in 2001/02.

The karst system is renowned for its numerous spectacular caves, two of which are developed as show caves and are important local attractions. Annual admissions to the two show caves are of the order of 25–30,000 and 18–22,000 respectively. The majority of the caves are undeveloped, however, and are visited primarily by recreational cavers.

Surface karst features, as found in the conservation area, such as sinkholes, blind valleys and major springs form a conspicuously different landscape to non-karst systems. Thus the conservation area provides attractions in its own right.

The visitor facilities and management are well developed for the national park. The area is well-known and popular, and not so remote from settlements. Given the existing visitation rates it seems plausible to assume that the conservation area will also pull in a significant number of visitors. However, for many of these people, the prime factor in their decision to visit may be the caves, and this suggests that the economic impact for the conservation area should be adjusted downwards from the raw estimate.

Gluepot Reserve

Gluepot Reserve is on a pastoral lease located 64 km north of Waikerie and the Murray River in South Australia's Riverland District. The NRS Programme contributed $20,000 out of a total of $671,000 in 1998/99. Gluepot Reserve (54,390 ha) is bounded on the east and the south by destocked pastoral leases, which are part of the Bookmark Biosphere Reserve (NRS Programme contributed $270,000 for 92,600 hectares for the acquisition of the Taylorville station).

Birds Australia purchased Gluepot Station on 30 July 1997 because it was then known to contain populations of six nationally threatened species of birds. The previous owner of Gluepot Station had applied to the State Government and received provisional approval to burn areas of mallee to increase fodder for sheep. Birds Australia manages the reserve under an agreement with the Commonwealth as part of the NRS.

The Reserve is staffed on a continuous basis by Volunteer Rangers who stay for a minimum of two months and are paid a monthly food allowance. Volunteer Rangers are expected to undertake tasks similar to those of a National Park Ranger. Numerous individuals, members of local community groups and larger organisations have undertaken a wide array of tasks on the Reserve ranging from practical infrastructure projects to developing a flora and fauna monitoring programme. Volunteer contributions during 1999–2003 averaged over 21,000 hours and 134,000 vehicle kilometres per year, a contribution worth over $2 million according to Natural Heritage Trust calculations.

Visitor numbers to Gluepot are moderate and manageable. Data on visitor and vehicle numbers are gathered when visitors fill in registration forms. With increased marketing, visitor numbers tripled between 2000 and 2003 from 1,000 to 3,000 people arriving in 1,500 vehicles each year. Campers generally arrive with 1–3 people per vehicle and stay for about 3 nights. This is equivalent to some 18,000 visitor nights per year. Most visitors arrive during the cooler months of March to October inclusive. Due to the eastern third of the Reserve being zoned as a core reference area, visitor access is restricted to the western two-thirds of Gluepot. The researchers and volunteers working on Gluepot each year tend to spread their trips more evenly through the year.

There are four bush camping grounds, three of which are available for use by visitors. Visitors are required to bring their own water and remove their rubbish. Visitors have never left rubbish behind, and no act of vandalism has occurred on the Reserve in six years of operation. The Reserve contains 14 loop walking tracks, all supplied with brochures. A survey of Gluepot's campers in 2002–03 indicated that most people did not want to see an increase in camp ground infrastructure.

Little marketing of the Reserve was undertaken in the first three years. Subsequently a Reserve website was completed in 2000, a full-colour brochure was produced and distributed widely in 2001, and a lot of work was done with tourism organisations and the media. An annual newsletter is sent to 2,600 supporters. In 2001 the Reserve joined the Riverland Tourism Association. In 2002 Gluepot Reserve received advanced accreditation for 'attraction' and 'accommodation' under the National Ecotourism Accreditation Programme. It also received full accreditation under the National Tourism Accreditation Programme. The Reserve is represented on the boards of the Riverland Tourism Association, The South Australian Tourism Accreditation Board, and Ecotourism Australia.

Because of the contribution of volunteers, Gluepot costs only around $50,000 a year to operate, and this includes $14,000 set aside to cover capital replacement. Major capital works are an additional cost which have been funded by private donations and money raised from government grants. During its first seven years (1997–2003), the operating costs of the Reserve were fully covered by the donations, fees and payments. Additional sources of income including an endowment Foundation have been established to help secure the financial future of the Reserve. Donations of around $13,000 per year are received from visitors. Sales of $500 per year have been generated from various items, but this is predicted to rise with the opening of the new Visitor Centre.

Discussion

Based on the statistics provided in the management plan for the Gluepot Reserve, quite remote areas can expect to receive several thousand visitors per year. An immediate observation is the tension between making a conservation area available for recreation use. The attempt to generate more income may conflict with ecosystem protection, but there may even be conflict between the type of experience that different visitors may want. Visitors who come to Gluepot at the moment are happy with the level of facilities and do not wish to see any major enhancements. It would appear that these visitors are unlikely to be big spenders and not looking for an expensive holiday. To attract people who may want more refinement (such as accommodation) will not only require further investment but also impinge on the amenity of the current visitors. It should also be remarked that the current visitors to date appear to take their responsibilities in regard to protection of the natural area very seriously in terms of removing waste and avoiding vandalism or damage. It may prove difficult to maintain the past good record if visitor numbers grow, particularly if there is a change in the type of visitors and their expectations.

The other remarkable observation in regard to Gluepot is the contribution by volunteers. In the years 1999 to 2003 the average volunteer time approached 22,000 hours per year. Assuming an 8 hour day and 225 working days per year, this is equivalent to in excess of 12 full time employees. Of course many of these volunteers would have spent these hours on site, in effect they would have been visitors as well in terms for the purpose of arriving at the contribution to the local economy. In fact, the number of volunteer days on site would appear to be of the order 10% of the camper numbers.

Attachment 3

Summary of Issues raised in Submissions

Submission number	Submitter	Issues raised
1.	**Productivity Commission**	• No formal submission but lists PC publications which may be relevant to evaluation.
2.	**Land Water and Coasts Division, Department of the Environment and Heritage, Australian Government**	• Referral to the relevant sections of the National Biodiversity and Climate Change Action Plan, especially those relating to the importance of refugia for migratory and vulnerable terrestrial species under future climate regimes.
3.	**Department of Natural Resources, Environment and the Arts, NT Government**	• NT Strategic approach to biodiversity conservation focused on Draft NT Parks and Conservation Master Plan. • Both reserve and off-reserve measures important, including IPAs and conservation agreements. • Achieving conservation benefits at local, regional, national and international scales will, to some degree, depend on success in redressing chronic disadvantage suffered by Aboriginal owners and managers of some of the NT's most bio-diverse lands. • Intention is to implement the Masterplan in ways that achieve economic and social benefits for Aboriginal land owners and managers: linking reserves to regional development plans; facilitating direct employment in conservation and tourism both on and off-reserve; encouraging associated Aboriginal enterprises; and offering training. • Masterplan provides a framework for a world class CAR PA system which incorporates the aspirations of Aboriginal traditional owners whilst employing best practice management. • Challenges include: large area (1.35m sq km – 1/6 of Australia); small population (1/7 sq km); high cost of providing infrastructure and managing assets; essential services funding for Aboriginal housing, health and education often take priority over biodiversity conservation. • NT is in a position to make a major contribution to the NRS, but only if resources are provided by the Commonwealth as national priority rather than per capita. • Conservation values in NT are of national and international significance and demand funding at both NT and national levels. • NRS Programme a crucial element of NHT and funding is manifestly insufficient to establish a CAR reserve system. • Commonwealth should fund 100% of acquisition costs with States and territories to fund infrastructure and management.

Submission number	Submitter	Issues raised
4.	**Conservation Commission of WA, WA Government**	• CC has reviewed and endorses CALM submission. • Principal focus of NRS Programme should be in progressing achievement of a CAR reserve system through additions to the formal conservation estate. • Private protected areas and IPAs perform valuable functions complementary to the formal reserve system. • Statutory protection, available management expertise and publicly accountable management planning and performance assessment of the formal reserve system exceed the levels that can be achieved for private protected areas and IPAs. • NRS Programme should be refocused to ensure that lands targeted for reservation are afforded the highest level of statutory protection from threats, are provided with the most highly resourced and skilled management arrangements and sit within the State's conservation reserve framework of public ownership with independent oversight of management from the Conservation Commission. • If reservation targets set by the Directions Statement are to be met, it will be imperative that the NRS Programme is adequately resourced and funded to a level significantly beyond the current level.
5.	**Noosa Council, Queensland**	• Values the assistance of the NRS Programme in implementation of local programs to acquire strategically important lands as part of local conservation networks. • Programme is efficient and effective. • Links well with the delivery of conservation, economic and social benefits.

Submission number	Submitter	Issues raised
6.	**Dept of Conservation and Land Management, WA Government**	• Level of funds provided to State for acquisitions has declined dramatically to a record low in 2005/2006 (CALM $4m: Commonwealth $50k). • Over last 10 years: CALM $24.1m: Commonwealth $12.3m. • Declining opportunity to acquire suitable lands means that acquisition programme needs to be accelerated with more funds for purchase and biological survey by the Commonwealth. • NRS Programme has achieved positive outcomes for biodiversity conservation and related economic, cultural and social benefits that are an outcome of the reserve system. • Even in the absence of high level active management, the acquisition of land for conservation has immediate biodiversity and community benefits (e.g. through removal of stock grazing and formal legal protection against inappropriate uses). • The development of the IBRA/IMCRA framework has provided a standardized approach for the identification of priority bioregions for reserve establishment. • The formal reserve system in WA is still well short of targets to meet CAR criteria. • The recent focus of the NRS Programme of preferentially directing funds to private protected areas and IPAs has been at the cost of investing in the formal reserve system which has the highest protection status and long-term security for management and investment purposes. • CALM fully supports private protected areas and IPAs but sees these as complementary to, rather than substituting for, the formal public reserve system, as they are not necessarily subject to public accountability, nor do they often have long-term security of tenure. • Future IPAs should be established under tripartite agreements between traditional owners, the State and the Commonwealth, and they need to be linked to long-term statutory protection. • The original two-thirds Commonwealth, one-third State contribution to land purchases recognized the States meeting on-going management costs and should be reinstated. • Despite a decrease in funding from NRS Programme, the State has continued to allocate significant funding for land acquisition, management and infrastructure for parks and reserves. • Commonwealth seems to have moved away from promoting NRS and NRS Programme in favour of promoting and financing NRM projects more heavily focused on primary production lands; and in favour of private reserves rather than the public reserve system that has longer term security and public ownership. • The development of the NRS needs to be raised as a community and political priority; reinstated and funded as a principal programme of the NHT rather than as a sub-set of Bushcare or seen as largely concentrating on private reserves and IPAs. • Funding for NRS should be primarily applied to land acquisition with some funds available for the scientific assessment that underpins the design of the reserve system.
7.	**Mr Eric Bills, Maryland, SA**	• The National Biodiversity and Climate Change Action Plan (NRMMC 2004) under Action 5.2.1 has *'a review of reserve system plans to include priority areas that could be used to assist migration or provide natural refuges'.* Such an approach should be more clearly enunciated in the Directions Statement.

Submission number	Submitter	Issues raised
8.	**Wildlife Preservation Society of Queensland**	• Programme has clear direction and has support from a wide array of government and other organizations. • NRS Programme has successfully identified priorities for acquisition but establishing the NRS has not progressed as rapidly as desirable. • Current NRS Programme will fail to achieve targets by which Australia is bound although some progress has been made. • Resilience and Connectivity should be added to CAR criteria. • Concerned about reliance on regional ecosystems as a surrogate for biodiversity. Strong correlations for forests/woodlands, but not demonstrated for grasslands, forb lands and low shrublands. • The presence or absence of threatened species alone should not be a driving force for acquisition. • More emphasis needs to be placed on large, relatively intact systems across the landscape rather than delivering isolated pockets of green in a fragmented landscape. • Continental scale conservation model is needed. • Restricted and/or limited co-operation by States and Territories and their financial contributions. • Decline in funding a major concern. Massive increase needed. • Linkage with other NHT programmes not occurring. • Cost effectiveness of conserving intact native ecosystems rather than rehabilitating significantly degraded vegetation has been noted, but significant funding is allocated to rehabilitation programmes at the expense of the NRS and NRS Programme. • A significant percentage of NHT funds should be redirected to the NRS Programme so that at least $40m per annum over the next six years to be matched in part by the States and Territories. Allocation of these funds should be on a triennial basis to allow for planning certainty. • Expansion of financial assistance to assisting management requires further investigation. • NRS Programme is the primary programme by which Australia satisfies or attempts to satisfy some of its international obligations. • Status and integrity of Programme needs to be protected. • Sample audits need to be undertaken to ensure compliance with the Directions Statement. • Strong support for involvement of Indigenous people and lands in the Programme provided they comply with the Directions Statement. • Willing to accept that provided they meet Directions Statement requirements, public non-profit company reserves and private landholder reserves should be included in the NRS. • NRS Programme deficient in providing incentives for landholders to be involved. • NRS Programme deficient in development and implementation of best practice management standards. • Support partnerships with local authorities such as those in SE Queensland, but concerned to ensure they meet requirements of Directions Statement and address connectivity issues. • NRS must be marketed to industry and broader community to engender wider support.

Submission number	Submitter	Issues raised
9.	**Arts, Heritage and Environment, ACT Government**	• There are still opportunities for acquisitions to assist establishment of CAR reserve system in ACT and region despite complications of : National Capital Authority planning control, holdings by Commonwealth agencies and leasehold tenure of ACT land. • Focus for ACT now on research, monitoring and management aimed at improving ecological condition of reserves and protection of habitat for listed threatened spp. • NRS Programme may be a more appropriate funding source than Australian Research Council (ARC) for research on grassy woodland ecosystems. • NRS Programme could be vehicle to monitor and enhance reserve management outcomes. • Need to integrate reserve and off-reserve approaches to biodiversity conservation and landscape recovery. • Whole of ecosystem recovery is essential in providing for threatened species recovery.
10.	**Dr James Fitzsimons, Deakin University**	• NRS Programme is recognized by scientists and environmental policy makers as an essential component of biodiversity conservation efforts in Australia. • There is a need for greater transparency in decision making. All applications and justifications should be outlined on the NRS Programme website. • Need to clarify policy on the role of private land within the NRS. Decisions on accepting some forms of binding agreements on private lands and not others have the potential to significantly alter acquisition priorities. • Uncertainty over the role of Conservation Management Networks needs to be clarified. • Greater three way levels of communication between NGOs, State and Territory conservation agencies and DEH NRS Section is needed both prior to purchase and in management implementation. • There is a need to better integrate the NRS Programme with other NHT programs. • A significant impediment to integrated natural resource management exists when NRM funds cannot be used on NRS Programme purchases even though properties might have been considered high priorities for funding when in freehold ownership prior to purchase. • NRS Programme decisions should continue to be made at a State or Territory and national level rather than an NRM regional level. • Links between IPAs and State and Territory nature conservation agencies need to be strengthened so that NRS Programme priority setting is more robust. • The NRS Programme website should be used as a tool to promote the programme. • Funding for the NRS Programme is nowhere near adequate. Governments have benefited from increases in property prices across Australia but there has been no comparative increase in funding for NRS Programme. The real financial contribution to land purchase can only be seen as diminishing.

Submission number	Submitter	Issues raised
11.	**Dr Marc Hockings, University of Queensland**	• Strongly supportive. • NRS Programme has played a pivotal role in establishing a nationally consistent approach to biodiversity conservation and protected area policy in relation to acquisition and management. • Continuing NRS Programme is critically important if Australia is to achieve its national objectives for biodiversity conservation as well as meet its international obligations in this field. • Has contributed to and supports WCPA Australia and NZ submission. • The shift to a regional focus for delivery of NHT programmes has led to a dominant focus on local and parochial issues in the formulation of regional programs. • As a member of a Scientific Advisory Committee for a World Heritage property, has found it difficult to get regional NRM bodies to give attention and priority to national conservation objectives, especially in relation to protected areas. • Maintenance of NRS Programme as a significant national Programme and funding mechanism is necessary if national and State and Territory objectives related to biodiversity conservation are to be achieved. • Programme has gone a long way towards a CAR reserve system but establishing effective management of new and existing reserves remains a significant challenge. (NLW Audit – good/very good in 17 of 85 bioregions). NRS Programme could play a significant role in developing and promoting best practice management approaches for protected areas. • The Directions Statement makes progress on this score at the policy level but much needs to be done to turn policy intentions into sound management on the ground. Some work with NSW, Vic and University of Queensland is a good example of the approach needed. The NRS Programme could form the hub of a co-coordinated, multi-institutional approach to addressing critical issues in reserve management. • NLWR Audit (2002) reported 67% of Australia's regional ecosystems are not represented in protected areas but approximately half of the bioregions remain high priority for acquisition. Achievement is significant but much remains to be done. • The main objectives of the NRS Programme remain appropriate but focus may shift from acquisition to management. Additional objectives could be framed around ensuring achievement of international commitments relating to biodiversity conservation and protected areas.

Submission number	Submitter	Issues raised
12.	**Mr Peter Bosworth, Teatree, Tasmania**	• Effective biodiversity conservation relies equally on establishment of a CAR protected area system; and ecologically sustainable natural resource management across the landscape. • Because some opportunities have already been foregone, a true CAR reserve system and ecologically sustainable management for some species and systems will not be possible. • Successive governments since 1992 have endorsed the goal of a CAR reserve system and supported programmes to achieve it. • There has been a significant increase in terrestrial protected areas since 1996. In 1997 PAs covered 59.75 million hectares (7.78% of the Australian land area) and this had increased to 21.14 million hectares (2.74%) to 80.90 million hectares (10.52%). The NRS Programme has contributed significantly to this achievement. • Analysis of changes in CAR criteria over the same period would also show similar significant progress. • The NRS Programme has assisted with the development of significant tools for understanding and progressing NRS objectives including: IBRA; NRS Scientific Guidelines: Directions Statement and CAPAD; as well as collaborating in the development of the National Vegetation Information System and the National Land and Water Resources Audit Australian Terrestrial Biodiversity Assessment 2002. • Work to date indicates that Australia is at the forefront internationally, with capability to make significant further progress towards a CAR reserve system. • Conservation of biodiversity in situ is considerably more effective and efficient than allowing biodiversity to be degraded and then attempting conservation and/or rehabilitation. (Directions Statement 2005, Australian Terrestrial Biodiversity Assessment 2002.) • NRS Programme funding has been successful in leveraging other funds from State and Territory Governments, community organizations and individuals but success has been limited by the sporadic nature of funding and the timing of calls for applications. • NRS reserves, their features and biodiversity provide the majority of attractions on which the Australian tourism industry is based. • A range of studies demonstrate major contributions to local, regional, State and Territory and national economies from parks and reserves. • The reserve system provides ecosystem services necessary for life on earth and of immeasurable economic significance. • The NRS also provides for cultural, recreational and social needs. • A lot still needs to be done. The Australian terrestrial Biodiversity Assessment 2002, found that 72% of Australia's ecosystem biodiversity was protected in the NRS; approx half of the bioregions are high priority for further reservation action;1500 poorly reserved ecosystems were identified as the focus for further reservation; 31% of subregions in the intensive land use zone had less than 30% of their native vegetation remaining and 48% showed little connectivity between remnants. • The minimum acceptable goal for a functioning landscape providing a basic level of ecosystem services and retention of a moderate proportion of biodiversity is 30% of native vegetation at a landscape level. • Opportunities for developing a CAR reserve system are rapidly diminishing. • The Directions Statement provides a clear way forward for the NRS and NRS Programme. The existing framework and NRS Programme need to be maintained and built on. • NRS Programme funding of $500m over the next 10 years is necessary, acknowledging that not all targets and objectives can be realized but there could be very significant progress towards them.

Submission number	Submitter	Issues raised
13.	**National Parks Association of Queensland**	• Commitment needed from all jurisdictions to meet CBD targets and align policy objectives to CBD targets. • NRS should bring marine and forest agreement areas into a unified system. • An audit of NHT funding should be undertaken for comparison of cost effectiveness of spending on NRM versus NRS Programme in meeting biodiversity protection obligations. • 50% of NHT funds should go to the NRS Programme and 20% of that to Queensland: or $30m/yr for acquisitions in Queensland on a 2:1 matching basis with State, Local Governrnent, Indigenous and other Land Trusts. If NHT were to fund management costs of NRS-listed areas, 1:1 funding split may be more reasonable. At the least, NRS Programme acquisitions funding should be increased to the PMSEIC recommendation of $40m/yr for 6 years for all of Australia on the 2:1 matching basis. • National Standards should be established for categorizing parks based on management cost. • NRS Programme funding should be sourced primarily from the tax base, trusts and environmental levies rather than "user pays" approaches like visitor fees and commercialization of reserves. • NRS standard 4 should be revised to add connectivity, resilience and maintenance of ongoing ecology and evolution as principles alongside CAR. • A formal listing process should be initiated and follow-up audit procedure followed, by which all candidate areas for inclusion, of whatever tenure, are checked by an independent scientific panel for meeting standards for inclusion in the NRS. • Aboriginal land on Cape York should be a focus area for investment in capacity building for Traditional Owners willing to declare and manage IPAs. The budget should be increased to meet the potential. • A programme of designation of critical habitats as required under EPBC should be initiated with a view to listing in the NRS where appropriate.

Submission number	Submitter	Issues raised
14.	**Gecko – Gold Coast and Hinterland Environment Council**	• Support the submission of the National Parks association of Qld. • The NRS provides the overarching body and directive that organizes irreplaceable local action. • Although the NRS is the best available method to continuing challenges related to meeting Objective 7.1 of the 1996 National Strategy for the Conservation of Australia's Biological Diversity, funds have not been allocated accordingly. • Even though 95% of NHT funding goes to NRM, no research has been conducted to determine whether it is cost effective and biodiversity conservation has not been integrated into the planning. • Focused, scientifically based and regionally relevant management plans must be a high priority. • The NRS is in a unique position to ensure the prolonged protection of areas that remain in a relatively pristine state, acting now to obviate the need for more expensive clean up later. • The concentration of NHT funds on NRM has significantly reduced resources to achieve national biodiversity priorities and targets and many regional plans are now more reactive than proactive. • Investment in regenerating the landscape rather than preserving what is still unaffected has failed to meet the stated objectives. • A mere 1.5% of NRM programmes have biodiversity conservation well integrated into their plans.(Terrestrial Biodiversity Assessment 2002). • To improve NRM, specific plans are needed based on region specific assessments; biodiversity conservation targets and objectives need to be identified, monitoring should be augmented as well as cooperation between government and private landholders, fine tune plans as new info and results become available, educate communities on the benefits, perform a cost-benefit analysis of private reserves compared to public lands, gather info on occurrence of threatened species, threatening processes and relevant recovery actions. (TBA 2002). • NHT funds should be split equally between NRM and NRS and the funding of NRS Programme acquisitions should be on a 2:1 matching basis with partners. • Management plans should be created and implemented in a more efficient manner. • Money to fund an initial assessment of the land and the preparation of management plans should be included in the cost analysis of the acquisition. • There is a need to create task forces that concentrate on one area that needs attention rather than having an overarching entity that covers management, assessment, planning etc. • The dearth in financial, educational and scientific resources is recognized as a great hindrance to the realization of NRS objectives.

Submission number	Submitter	Issues raised
15.	**Conservation Council of WA**	• The principal focus of the NRS Programme should be in achieving CAR reserve system goals through additions to the formal conservation estate. • The WA CAR goal of 15% reservation is only a little more than halfway achieved. Significant additions are needed to meet national goals, yet Australian Government funds for land acquisition in WA seem to have dried up since 2000. • Concerned that 5 million ha of (2% of State land area) former pastoral leases purchased in WA rangelands remain unreserved after approximately 6 years. • Private protected areas and IPAs perform a valuable complementary function to the NRS, they should not be treated as part of the NRS and their qualification for any IUCN category is questionable 'due to the low level of legislative security'. • Australian Government should re-institute past funding levels for purchasing key areas to complement National and State priorities for completing CAR reserve requirements.

Submission number	Submitter	Issues raised
16.	**World Commission on Protected Areas**	• Strong support for NRS as critical and cost-effective in achieving Australia's biodiversity conservation goals. • Other benefits such as tourism, ecosystem services, recreation and health benefits are significant. • State and Territory systems enhanced with innovative governance for indigenous lands and stimulation of private land trust sector. • Protecting existing systems more cost effective than repair of degradation. • Directions Statement accords with international consensus on reserve systems. • Funding should be increased to at least a similar level to the repair effort. • There should be an equivalent funded programme for NRS of Marine Protected Areas. • NRS Programme has successfully contributed to goal of protecting 15% of Australian ecosystems and outcomes are a significant achievement on a global scale. • NRS has helped set up and maintain ecological networks. • By supporting Conservation Management Networks (CMNs) has acted as a catalyst to engage other property owners in conservation management of land. • NRS Programme should be expanded with increased funding as per National Biodiversity Alliance Proposal. • Bipartisan support for Protected Areas which are linked to Australia's international commitments and national targets for biodiversity conservation. • 67% of regional ecosystems now represented in reserves but approx 50% of bioregions are high priority for consolidation of NRS if CAR system is to be achieved. • Standard of management an issue of concern including: adjacent land use, invasive species, fire regimes and water extraction, threatened species, endangered ecological communities. • Coping with climate change relies in part on reserves to act as refuges connected across the landscape with networks of protected areas. • The NRS has helped protect places of significance for Indigenous people and also generate economic benefits for Indigenous communities. • IPAs provide another vehicle for indigenous work on land and wildlife management but rigid guidelines and short term funding cycles are an impediment to effective land management. • Moral and ethical duty to intergenerational equity. • Poor integration with NRM planning and delivery. • Regional NRM delivery has significantly reduced resources to achieve national biodiversity priorities. • Regional NRM bodies are dominated by land production and repair issues rather than focusing on protecting healthy systems. • Reductions in funding for NRS Programme make serious acquisitions almost impossible. • States and Territories have very limited capacity for acquisitions and Commonwealth should fund 100% of cost of acquisition with States or Territories meeting management costs. • No reserve system will achieve its objectives without adequate management. • Concerns at lack of on-going management funding for IPAs.

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Submission number	Submitter	Issues raised
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16.	**World Commission on Protected Areas**	• Commonwealth leadership and support is needed through NRM Ministerial Council etc if State and Territory agencies are to get funds necessary to implement good science and adaptive management. • On-going funding needed for land management – possible fund for land management, environmental levy. • Priority funding towards management costs of all areas of international significance. • NRS has contributed to significant economic, cultural and social benefits but assessment of these not a focus to date. • Lack of hard data on achievements and benefits of NRS Programme. • There should be greater collation of benefits across all areas. • There should be an equivalent NRS Programme for MPAs. • Reserves are demonstrated to be the best method of conserving intact ecosystems. • Conserving intact ecosystems is much more cost effective than repairing degraded areas. • Cost of $300-400m to achieve 80% protection of the full range of regional ecosystems, save 14,700 spp, and deliver collateral benefits of $2,000m is considered modest for such a national priority. • Comprehensive ecosystem retention effort should attract comparable funding with national land repair effort. (1.4 billion over 8 years). • $50-$60m/year from Commonwealth on 2:1 basis with all partners. • $8.5m (including 2.5m for IPAs) appears inadequate by a large margin compared with $175m allocated to land repair. • Governments have benefited from increases in land prices in recent years but NRS Programme funding has diminished. • States need more certainty of funding – 3 year block funding rather than current 2 yr. • NRS Programme seems focused on acquisitions which do not fulfil all objectives of Direction Statement. • Less consideration appears to be given to resources required for management and enhancement of ecological condition.
17.	**Australian Government NRM Facilitator – Bushcare** **Ruth Temple-Smith (Tas)**	• The objectives of the NRS directly match what the regions in Tasmania are working towards in implementing the biodiversity component of their regional NRM plans. • There is a strong focus on property vegetation management plans, signing voluntary agreements and where possible, landholders taking out covenants. • The NRS Programme could play a valuable role in assisting with the purchase of areas identified where the values are high but fall outside the scope or capacity of the regions. The land could be either made a reserve or protected with a covenant and resold, in the latter case creating a revolving fund. • The various programmes could and should be better linked to enable better use of limited resources. Tas DPIWE is working on pulling together the programs for a more strategic approach.

Submission number	Submitter	Issues raised
18.	**Inland Rivers Network**	• Imperative that NRS includes freshwater protected areas for ensuring a comprehensive NRS. • A substantial funding programme should be provided to address the NRS gap with respect to freshwater systems and to implement the framework to be developed as a result of Direction 7 in the Directions Statement. • IRN/ACF paper "Vision for a Framework under NWI for the protection of High Conservation Value Freshwater Areas in Australia" should be adopted as the mechanism through which NRS fulfils its obligations.
19.	**National Association of Forest Industries**	• Instead of relying on simple area targets for the NRS, the NRS Programme should require that any future investment in biodiversity conservation and ecosystem protection should be supported through an adaptive and flexible approach to management. • An effective and nationally consistent monitoring programme should be established to assess the on-going health and vitality of ecosystems in the NRS. • No future expansion of the NRS should occur unless the areas added to, and those already contained within, the NRS are required to meet the standards of forest management set out in an independently-audited certification standard, such as the AFS or an equivalent standard. • A report should be produced on the actual outcomes, including biodiversity conservation achievements, which are being delivered by the NRS Programme. • State, Territory and Federal Governments should recognize the conservation and biodiversity outcomes associated with production forests and the utilization or conservation of forests on private land as a complement to the environmental outcomes provided by having elements of the same forest types managed in the NRS.

Submission number	Submitter	Issues raised
20.	**Mr Graeme Worboys, WCPA Vice Chair (Mountains Biome)**	• NRS Programme has made important, essential contributions to the Australian PA system as evidenced by the steady growth in representative areas and the degree of cooperation between the States and Territories for the programme. • The programme is unfinished as evidenced by: The non-100% representative Terrestrial reserve system(target set by SCB COP7 Action Plan by 2012); the non-representative marine and freshwater conservation system; the lack of continental scale conservation connectivity; the unfinished IPA system; the unfinished PPA system; the lack of a system to deal with the dynamic of Australia's environment as evidenced by the richness of Lake Eyre's biodiversity during rare lake full episodes; the lack of initiatives to deal with climate change induced biome shift; and the lack of initiatives to deal with Community Conserved Areas. • NRS Programme is appropriate • NRS Programme needs to broaden its scope to deal with all the above issues. • Unable to comment on efficiency but effectiveness of the NRS Programme is demonstrated from progress made in the NRS. • Conservation, economic, social and cultural benefits of PAs have been clearly described in the literature. • Unable to comment on specific benefits of NRS and NRS Programme achievements. • The future benefits (50+ years) derived for Australia from an expanded and more holistic reserve system are clear and include: greater protection to vegetation systems of central Australia during a time when increased temperatures and dryness may promote an environment equivalent to the mobile central dune systems of that area 15,000 years ago; greater opportunities to conserve the archipelago of refugia of biodiversity of the Great Escarpment of Eastern Australia and elsewhere; catchment protection for water supplies; and protection against salinisation.

Submission number	Submitter	Issues raised
21.	**Trust for Nature (Victoria)**	• Australian Government leadership in helping create a National reserve System based on the criteria of CAR reservation remains as important as ever. • TFN has purchased nine key properties through the NRS Programme including sites with highly threatened temperate grassland communities and regional staff have also helped identify suitable properties on behalf of the State Government for DSE. • TFN Regional Managers and Stewardship Officers are funded by NHT through service level agreements with CMAs with targets based on number and area of covenants in accordance with priorities laid down in CMA Regional Native Vegetation Plans. • TFN Rms also identify priority areas for covenant protection in collaboration with DSE using IBRA sub-region criteria. Increasingly this involves further coordination with CMA officers who implement Biodiversity Action Plans developed with DSE using bioregional priorities. There is increasing convergence between IBRA criteria, Regional Catchment Strategies and actual on-ground implementation of protection by TFN. • TFN agrees with the Directions Statement that involvement of the community and relations with neighbours are recognized as critical issues in the successful on-going management of protected areas. • There are many advantages to covenanting as a conservation instrument including: providing access to conservation outcomes not possible in the public estate; helping keep people living and working in rural and regional communities; and providing permanent protection and complementing the range of policy approaches from market-based instruments (e.g. Bush Tender) to community-based programs such as Landcare. Increasingly, incentives such as rate and tax relief are improving uptake. • NRS Programme could use an NRS specific Covenant Programme linked to incentives and/or management payments to greatly increase the protected area within each CMA region. • NRS Programme should provide TFN with a dedicated Revolving Fund to purchase and on-sell properties with covenants for the highest priority Victorian IBRA sub-regions. Such a fund could be trialed in a "pilot landscape". • The opportunity exists to provide incentive monies to landholders willing to create "NRS covenants" but who do not necessarily want to sell their land to an NRS Revolving Fund. • The TFN 2003-2006 Strategic Plan emphasizes the need for landscape scale planning to underpin efforts of Conservation Management Network landholders. • One of the main features of landscape-scale planning is to understand threats to biodiversity within the context of land tenures for the region and with regard to the full complement of conservation mechanisms and methods available. • TFN's participation in CMNs is always predicated on encouraging participation from local and regional public land managers as well as private landholders. • Of critical importance is that the growing CMN system in Victoria, usually supported by a multiple partnership between TFN, CMAs, DSE, Parks Victoria and others should be used to further the aims of the NRS. This would entail both the delivery of funds for management of NRS sites as well as the creation of monitoring protocols and management plans in accordance with Direction 28 of the Directions Statement.

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Submission number	Submitter	Issues raised
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21.	**Trust for Nature (Victoria)**	• Ned's Corner Station is a case study of NRS Programme in action and integration with NRM regional delivery. • TFN covenants are statutory permanent protection agreements that allow private landholders to voluntarily conserve habitat and wildlife on their properties. The agreement is a Deed of Covenant that is an encumbrance on the property title in perpetuity. Covenants outline land management restrictions, prohibiting the exercise of pre-existing property rights such as entitlements to clear vegetation or graze livestock for the current and all subsequent owners. The covenants are considered to provide for the strictest forms of protection as required through the IUCN classification system. • Driven as much by demand from concerned landholders, as by targeting of threatened vegetation types, TFN covenants currently protect over 30,000 hectares in Victoria with 700 landholders with the rapid uptake continuing and expected to reach 31,317 hectares and 736 covenants in 2005–06. • TFN believes that many of the existing sites protected in partnership with landholders are worthy of inclusion in the NRS.

Submission number	Submitter	Issues raised
22.	**National Parks Australia Council**	• Aware of the importance of the NRS Programme in progressing the establishment of a secure protected area system as a cornerstone element in the conservation of Australia's natural heritage for the benefit of present and future generations. • Noted the Departmental Review of the NRS Programme leading up to the 2005 publication of the Directions Statement. This publication highlighted five main areas requiring attention: the need for clear, agreed and measurable national targets; guidelines; the inadequacy of consistent ecosystem-scale mapping; the need for an agreed national plan of action; and the need for funding for both acquisition and management. • Funding and commitment to adequately address the five identified areas of concern has not kept pace with the pace of on-going change across Australia, both in NRM institutional arrangements and in terms of loss of habitat and species decline. • On-going modification of habitat is of particular concern especially with regard to the implications of climate change. • Acknowledges the important potential for complementary action through strategic integrated land management involving the acquisition and management of land for conservation purposes under a variety of heritage agreements under State jurisdiction. • Concerned over the separation of marine and terrestrial reserve considerations which leads to anomalies over degree of protection and expectations and notes the lack of an NRS equivalent for aquatic (inland or marine) waters. Given the accepted need to increase attention to freshwater/inland waters the inconsistency of messages from Fisheries and Environment agencies is of particular concern. • Welcomes acknowledgement of the important role of Aboriginal peoples in caring for country, and thus the attention to the potential of IPAs for the NRS. • Strongly supports concepts of a NRS network and considers that the Federal Government through DEH has a very important leadership role in: setting policy; developing appropriate institutional frameworks that incorporate both incentives and regulatory measures; contributing to understanding and appreciation of our natural inheritance; and contributing financial resources for research, acquisition and long term good management. • Concerned at the fall-off in funding for the NRS Programme. • Concerned over misunderstandings and tensions re high conservation value lands secured for protection through RFA processes. Some have been inappropriately promoted for recreational access which threatens their key values. NRS Programme should address this issue and means should be sought to assist complementary acquisition of additional areas to cope with the demand for high impact recreation sites. • Partnership with NPAC to promote the NRS Programme should be pursued.

Submission number	Submitter	Issues raised
23.	**Parks Victoria, Victorian Government**	• Victoria has received $4.75m (exclusive of GST) from the Commonwealth through NRS Programme for the purchase of 39 properties totaling 7714ha. • All purchases have certainly enhanced the CAR of the reserve system in Victoria. • NRS Programme funding should allow for costs associated with purchase, rather than just the purchase price. Accept that NRS Programme should not, as a principle fund on-going management, but set-up costs such as fencing and initial weed control can be significant and should be covered under the Programme. • Standard 'proposal form' should identify estimated additional costs of managing the purchase so that the State's on-going liability is clearly identified. • Supports a review of programme funding allocation to take account of differences in cost of land purchases between inland and coastal areas. Possibly funding formula could be based on the % increase in endangered vegetation communities. • There should be an increased funding allocation to the NRS Programme generally and a return to the original two-thirds Commonwealth, one-third States. Current funding arrangement has reduced States' ability to purchase inliers within existing reserves which would allow more efficient management of already reserved land. • A fixed annual timetable for developing applications would be more efficient, and guaranteed funding for 3-5 years rather than annual funding would provide greater scope to purchase more expensive properties by either bringing forward substantial purchases or making purchases in installments, and improve the ability to purchase high priority properties. • Greater publicity for the Programme combined with an increased Programme allocation will generate greater public awareness and very likely lead to an increase in the number and quality of properties offered for purchase and enhance the Programme's effectiveness. • The fundamental values for which the property was purchased should be clearly understood by land managers. • There should be a better scientific transparency on the basis for rejecting applications so that it is clear to the proponent and land manager why some applications are supported and other rejected. • CAPAD should be reviewed and improved by adding a map-based search and report function and more regular updating as well as ensuring that it is accessible to State and Territory agencies. • Land managers should be provided with feedback on 'Management Statements' provided to the Commonwealth.

Submission number	Submitter	Issues raised
24.	**Victorian Department of Sustainability and Environment**	• NRS Programme has provided a welcome boost to the overall budget available for the Conservation Land Purchase Programme. DSE has purchased 39 properties totaling 7,714 hectares and received over $4.57 million in funding assistance. • Properties purchased to date have been assigned to Parks Victoria for management. However, appointment of a Committee of Management is an appropriate alternative in some circumstance. It is intended that the Shire of Melton will be appointed Committee of Management for the Melton Gilgai Woodlands Nature Conservation Reserve. • DSE support for NRS Programme is demonstrated by: details published on the DSE website; articles published in *The Victorian Naturalist*; 20 Management Statements and 7 Values Statements have been completed as part of DSE's obligations under NRS Programme. • Reduction in funding from two thirds to half the purchase price for agencies has adversely impacted the number of properties that can be purchased and slowed gains to the NRS. • A higher level of assistance is warranted as State and Territory Governments are bound in perpetuity to maintain properties purchased and many require a high level of management resources. Consideration should be given to re-instating higher levels of assistance. • Agency proponents currently receive no assistance with establishment costs which are often significant in Victoria with the emphasis on grassland properties. • While some Victorian CMAs have been willing to consider funding towards fencing of grasslands, they are uncertain whether assistance can be given for Crown lands as NHT funds provided to CMAs apparently exclude their use on Crown land. • Staff administering the NRS Programme have been friendly and helpful but hampered by low staff numbers and turnover. • Planning and implementation of purchases has been made difficult by: uncertainty of annual funding for NRS Programme; lateness of approval of funding assistance which creates a risk that properties will be sold to others or withdrawn from sale. • Feedback on Management Statements and Values Statements from DEH has been rarely forthcoming. • Some elements of the NRS Programme application form wording need to be improved if DEH is to consistently assess the relative comprehensiveness of the bioregions in question (see particularly paragraph 4 (b). • DEH website encourages applicants to discuss proposals with nominated State/ Territory contacts. This has been useful in culling applications not meeting criteria and saving time and resources for all parties. • Previous practice of DSE being consulted on all applications involving land in Victoria has not been followed in recent times. Funding has been provided to other applicants for purchase of properties not high on DES priorities for purchase. • The good news stories of NRS Programme need to be told more effectively.

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Submission number	Submitter	Issues raised
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24.	**Victorian Department of Sustainability and Environment**	• Too much emphasis may be being placed on the comprehensiveness of medium priority IBRA bioregions at the expense of their under reserved sub-regions. (e.g. Dundas Tablelands in the Victorian Midlands IBRA region). • Transparency of project selection and feedback on reasons for success or rejection should be improved. • NRS Programme website needs to be regularly updated. (e.g. no information on 2005–06 Programme). • Website should include details of approved projects, management plans, success indicators for NRS Programme relative to other approaches. Links to websites of States/Territories should be considered.
25.	**Department of Natural Resources, Environment and the Arts, NT Government**	see Submission 3
26.	**Victorian National Parks Association**	• Strengthening the integrity of the NRS is a very significant component of sustaining biodiversity in Victoria. • Global warming and weed invasion are likely to have great impact on natural systems, severely compromising small or fragmented natural areas and putting considerable pressure on larger, more intact areas. • ACF recommendation to add 'resilience' to CAR characteristics for the Directions Statement should have been accepted. • VNPA generally supports 2004 ACF submission and asks that the issues it raises be looked at in the current evaluation. • NRS Programme should include support for acquisition of inliers in national parks. • There is a continuing need for additions to the representative system in Victoria, including formation of IPAs where appropriate. • Increased resources and increased monitoring and management processes are clearly necessary to secure long-term survival of biodiversity.

Submission number	Submitter	Issues raised
27.	**Queensland Environment Protection Agency, Queensland Government**	• Currently 70% of Queensland's regional ecosystems are represented in protected areas greater than 100 hectares in size across all 13 bioregions. • In four bioregions, at least 40% of all regional ecosystems are at risk (either endangered, with less than 10% of original distribution remaining; or 'of concern', with 10-30% of their original distribution remaining). • Qld-wide 32% of all regional ecosystems are at risk, including 10% 'endangered' and 22% 'of concern'. Threats to biodiversity are greatest in fertile agricultural regions, restricted fertile and moist areas within drier regions and areas associated with arid and coastal wetlands. • In terms of comprehensiveness and threatening processes, Qld has the greatest relative number of bioregions and greatest area of any State or Territory classified as high priority for reservation. • Queensland, the most biodiverse State has a National Park system with a relative area (4.3%) approximately half of the national average (7.6%). • In the fertile agricultural areas such as the Brigalow Belt the opportunity to develop a comprehensive protected area system is likely to be foregone unless urgent action is taken. • Across all bioregions one obvious deficiency in the reserve system is the protection of wetlands which are essential for the abundance and distribution of fauna throughout the landscape and to provide drought refuges for fauna. • Planning and reserve design processes also seek to take account of habitat needs for threatened species, endemism, adequacy, reducing fragmentation securing linkages between protected areas. • NRS Programme is very appropriate as a funding provider for high priority land acquisitions as the criteria for funding closely align with Qld criteria for prioritizing acquisition targets. • Current level of funding is totally inadequate given the number of jurisdictions and other potential applicants and the increasing prices paid for rural land, particularly in northern Australia. • Since 1993-94 Qld has spent approx $105m on land acquisition, of which approximately $15m has been provided by NRS Programme. • It is estimated that it will cost another $65m to reach a target of 5% of Qld in national parks, and at least another $250m if the target is raised to 10% of the State. • The NRS Programme currently receives approx 2.5% of the NHT budget allocation, which is considered inadequate given the core role the programme plays in achieving permanent conservation outcomes under the NHT programmes. • The funding of the NRS Programme during NHT1 was of the order of $14 million per annum and it is considered the minimum annual funding requirement on an ongoing basis to ensure the long-term outcome sought by the NRS Programme is at least $20 million per annum and if a more rapid approach is sought then funding of $30-40 million per annum would be necessary. • Alternatively, funding could be allocated by jurisdiction over a fixed term of perhaps 5 years.

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27.	**Queensland Environment Protection Agency, Queensland Government**	• A funding ratio of 3:1, or a least 2:1 is needed to acknowledge the on-going cost of reserve management being borne by the State/Territories. • The proposal to seek management effectiveness as part of the Directions Statement should trigger an additional funding commitment from the Commonwealth, on a perpetual basis as Qld already spends $120m per annum in managing the Protected Area Estate, the vast majority of which is incorporated in the NRS. • The lack of certainty in funding decisions even when priorities have been previously agreed, such as in Cape York acquisitions, has had significant impacts on State acquisition funding arrangements to the point where other priority acquisitions could not be finalized. The partnership approach explicitly sought by the Directions Statement will be undermined unless certainty of contract can be agreed as a fundamental element. • There is no effective substitute for the establishment and on-going management of a CAR tenured protected area system for effective biodiversity conservation. The use of the NRS Programme to provide seed funding for acquisition of additions to the reserve system has the potential to be highly effective. The NRS Programme deserves a higher profile and emphasis. • To date the major constraints on the NRS Programme reaching its potential revolve around the lack of recognition of on-going management costs; and the total available funding for the NRS Programme. • Overall, the NRS Programme has made a sound contribution to biodiversity conservation to date, as evidenced by the growth in the protected area estate across Australia over the last decade. • There is strong evidence to support the statement that acquisition to achieve permanent conservation outcomes is one of the most cost effective options available. This argument is strengthened by the increasing activity of NGOs in the field of acquiring and managing land for conservation. However management effectiveness is dependent on security of tenure and NRS Programme funding criteria should give priority to acquisitions which will give permanent protection to areas via each jurisdiction's PA tenures, in particular National Park reservation. • Qld remains committed to the acquisition programme that seeks to optimise representation of biodiversity in the Reserve estate and considers the current performance indicator for the NRS adequate. However a review of performance indicators would be desirable to broaden outcomes under the Programme, especially in relation to emerging issues such as climate change and options for linking existing and future reserves through both off-park and on-park conservation efforts. • NRS Programme needs to continue as a separate element within DEH as the only source of funding for acquisitions and needs to maintain this role and identity. • Land acquisition for permanent reserves is one of the most efficient uses of conservation funding. • NRS Programme funding leverages outcomes which would not otherwise be achieved. • The length of time needed for voluntary acquisition negotiations needs to be recognized in the management of NRS Programme acquisition funds.

Submission number	Submitter	Issues raised
28.	**National Trust of Australia (WA)**	• NTA (WA) utilizes both restrictive covenants and the Bushbank revolving fund for protection of off-reserve vegetation. Voluntary covenants are the priority. • To date, 96 voluntary covenants amounting to approx 8,000 hectares. • Each covenant includes a DEED which sets out positive management requirements and a management plan which sets out strategies and timing of events. A stewardship programme provided by the Trust ensure that landowners keep in touch on an annual basis with, requirements of covenant, provided advice, guidance and support on land management issues and advice and assistance with grant applications. • Bushbank is directed by State and National priorities. A Technical Advisory Committee reviews each purchase opportunity and advises the Bushbank Board. To date Bushbank has purchased 4 properties and as of 1 March 2006 has revolved three properties. A fourth is being rehabilitated before being revolved. • NRS Programme is an appropriate funding mechanism; however, given rise in land prices, additional funds need to be injected into revolving funds across the nation. Bushbank requires of the order of $15m. Revolving fund concept needs to be supported financially and politically given that funds are recycled rather than tied up in land in perpetuity. • NRS Programme has been achieving its targets generally, however broad distribution of funds to a myriad of small projects that do not have accountability attached to them, detracts from NRS Programme effectiveness. • The best environmental outcomes need to be considered over dollar efficiency.
29.	**Australian Government NRM Facilitator – Bushcare Neil Riches (WA)**	• WA regions would benefit from NRS Programme developing: clear statements on how the NRS links with regional NRM delivery; national management standards for the reserve system; and clear statement tailored to regions on how off-reserve efforts supplement and contribute towards NRS objectives. • Most regions in WA used CALM CAR reserve analysis of vegetation association in developing regional strategies. • Some technical officers in NRM regions have considered cost effectiveness of acquiring land for formal reservation, but without clear Australian Government guidance, catchment councils have not prioritized investment in land acquisition. • In Swan region, the CAR reserve system, supplemented by active conservation management off-reserves, is clearly recognized as underpinning the integrity of the region's biodiversity. • South Coast NRM region (SCRIPT) has committed to a target of having Management Plans or agreements for all public lands of biodiversity value commenced by 2009 and is initially funding development of five plans for Undeclared Crown land. • SW Catchment Council has funded an effort to pursue and develop eight conservation covenants on privately owned land with key biodiversity assets. • A clear policy position on how off-reserve efforts supplement the formal reserve system, this would assist regions to prioritise off-reserve efforts and allow monitoring and reporting to be designed to benefit both the region and the NRS reporting systems.

Submission number	Submitter	Issues raised
30.	**Indigenous Land Corporation**	• ILC has a policy of supporting and facilitating coordinated arrangements with other agencies to achieve benefits for Indigenous people. • The aspirations and needs of Indigenous people must be at the forefront of acquisition or land management activity for the ILC to consider contributing funds. • ILC association with the NRS has in the most part been through the IPA programme. • The ILC administers its own environmental acquisition programme. • The ILC has tried, unsuccessfully, to negotiate a joint acquisition of a property with DEH. • The ILC has entered an MOU with DEH and the ABHF to achieve benefits for Indigenous people but the outcomes have not been as extensive as expected. • A significant proportion of the success of the NRS Programme is due to the IPA programme. • In response to applications from Indigenous people and in recognition of the programme's success in meeting the needs of Indigenous people and delivering benefits, the ILC has provided substantial support ($47.7m since 1996–97) to IPA through acquisition ($6.3m) and management activities ($1.4m). • More Indigenous land would be under a conservation regime if additional funds were available through the IPA programme and Indigenous people's access to NRS Programme other than the IPA was enhanced. • There are significant untapped opportunities for the agencies to work together to achieve benefits for Indigenous people while delivering on NRS Programme goals. • 66%, or 13.8m ha of the 20.8m ha of land added to the NRS since 1996–97, was contributed through the IPA programme. • Indigenous people's access to funding under the NRS Programme is not in proportion to this contribution. • The level of funding to existing and new IPAs must be sufficient to ensure appropriate management. • Between 1998 and 2004, the NRS Programme provided $14.6m to NGOs and Local Government for acquisition and management of 1million hectares. This figure is more than the IPA programme received to protect 13.8m hectares. The ILC supports increasing the allocation of funding for land management activities under the IPA programme. • Indigenous people are dedicated to conserving their land and participation in conservation activities. The IPA programme would be strengthened were NRS Programme to target Indigenous people for land acquisition, rather than solely focusing on conversion of existing Indigenous land or existing State/Territory protected areas. • The ILC would support the NRS Programme developing and implementing a capacity building strategy to enhance opportunities for those Indigenous people who wish to convert their land to IPA and those already participating in the programme. • The ILC and DEH should strengthen their strategic partnership in order to enhance benefits for Indigenous people and outcomes for the NRS.

Submission number	Submitter	Issues raised
31.	**Australian Government Facilitator – Bushcare Annie Keys (Qld)**	• Gap analysis of Regional Investment Strategies associated with accredited NRM Plans late in 2005 identified NRS as an investment gap and several NRS related proposals were flagged for investment. • Response from regional bodies was that NRS was the responsibility of Australian and State Governments, not the regions. • It was obvious that there was a general lack of awareness of the NRS Programme and its objectives. • Some good examples of regions undertaking regional landscape scale planning include FNQNRM P/L (Wet Tropics) and South east Queensland Catchments. (Details provided). • NRM Plans in Queensland generally list protected areas in the region and some use conservation incentive schemes to target conservation outcomes on private properties adjacent to or providing corridors between protected areas. • The Fitzroy Basin Association is working with State agencies and private landholders to achieve landscape wide outcomes targeting threatened species and other biodiversity priorities (e.g. Curtis Island National Park management plan). • The Qld EPA Biodiversity Incentives Tender Programme has used NHT seed funding to work with private property owners in a Biodiversity Hotspot to assist them with the protection of natural values on their property. • Some projects in the regional competitive component also demonstrate links between NRM regional processes and the NRS (e.g. Northern Rivers NSW and SE Qld and the SE Qld rainforest recovery cross regional implementation programme).

Submission number	Submitter	Issues raised
32.	**Australian Bush Heritage Fund**	• The NRS Programme provides a framework for efficient establishment of a representative network of protected areas. • Through provision of funds to assist in purchase of land many successes have been registered, notably in the private land conservation sector. • Funding for the NRS Programme should be increased and the private land conservation sector particularly encouraged, as tremendous leverage is obtained through this funding support (including philanthropic financial support, pro bono arrangements with business and extensive community and volunteer support.). • An expanded NRS contributes to more resilient ecosystems, assists local, regional and national economies, builds national awareness and pride and affirms both Indigenous and non-Indigenous cultures. • Bush Heritage generally supports the WCPA submission especially those sections highlighting the cost effectiveness of protective management of existing ecosystems rather than repairing degraded ones. • Australia has exceptional levels of plant and animal diversity and is one of the world's 17 megadiverse nations. • Australia's protected areas are of global conservation significance, and have immense importance to both indigenous and non indigenous peoples for their cultural heritage values. However, there are many important areas that remain unprotected or are poorly reserved: the NRS Programme has contributed to identifying these. • Australia's national parks, conservation areas, reserves, marine protected areas and private protected areas are the core of Australia's biodiversity conservation effort and are the most effective means of protecting areas of high conservation value. However, the inadequacy of the existing reserve system to protect biodiversity across all tenures and land systems is widely acknowledged. • As a developed nation with a high level of material prosperity and globally-recognised leadership in conservation science, we are well placed to meet our own responsibilities for biodiversity conservation and sustainable development as well as contribute to global goals. • The NHT has provided a substantial boost to the level of funding available to the NRS Programme; nevertheless, the current level of funding is inadequate to achieve the goals of the Programme. • The Prime Ministers Science, Engineering and Innovation Council (PMSEIC) report *Setting Biodiversity Priorities*, (Possingham 2002) argued that an investment of $300–400M would achieve 80% protection of the full range of ecosystems, save 14,700 native species and result in collateral benefits of $2,000m. • The report went on to state that to get 80% of ecosystems represented we need to protect another 22 million hectares, or a further three percent of the Australian landmass. Bush Heritage's 2025 goal is to contribute through acquisition or management to the protection of 1% of Australia. • Australia's protected areas will prove essential in building landscape resilience to climate change and are economically important at both the regional and national scale. • Areas acquired through the NRS Programme have generally been in IBRA regions of "high priority" and have included many properties of outstanding conservation significance.

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Submission number	Submitter	Issues raised
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32.	**Australian Bush Heritage Fund**	• The cost efficiency in supporting acquisition of high conservation lands through the NRS Programme underscores its value for money in protecting the nation's biodiversity. • Consolidation of the National Reserve System, particularly through support of the non-government sector's acquisition initiatives - is one of the most cost effective investments that governments can make to secure the nation's biodiversity. • The private land conservation sector in Australia is blossoming with unprecedented levels of support, activity and success. Witness the growth of the Australian Bush Heritage Fund and the Australian Wildlife Conservancy, the plethora of smaller and emerging land trusts and the arrival of the USA-based Nature Conservancy to support private land conservation in Australia. • A key benefit of using funds from the NRS Programme to acquire and protect privately owned high conservation land is that they can be used to effectively leverage significant philanthropic funds and community involvement in a way not possible with public protected areas. Through The Nature Conservancy and other means, international funding and support for private land nature conservation in Australia has now commenced. • The Indigenous Protected Areas Programme is providing opportunities for innovative new partnerships between Indigenous groups and conservation organizations, such as the Partnership between the Indigenous Land Council and the Australian Bush Heritage Trust with "Beyond the Boundaries/ Conservation on Country" programmes. • The NRS Programme to date funds the acquisition of new properties in the private land conservation sector but it would be highly appropriate for the Commonwealth to also fund or substantially contribute to the funding of the management costs of areas of international significance. • NRS Programme is an appropriate funding mechanism to achieve economic, cultural, social and community benefits. It is the unsung and under-funded success of the NHT. • NRS Programme is vitally important and its objectives remain appropriate. • NRS Programme staffing and funding inputs have been minimal but outputs have been maximized. • In terms of transaction costs and cost efficiency, as a tool for biodiversity conservation, the NRS Programme compares favourably with other NHT measures, particularly as administration and long term management costs and responsibilities fall on recipients of the funds. Bush Heritage is unaware of any other NHT measure which better leverages funds for biodiversity conservation.

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Submission number	Submitter	Issues raised
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32.	**Australian Bush Heritage Fund**	**Recommendations on NRS Programme in the future:** • Maintain and expand the Programme over at least a three year funding cycles, thus allowing flexibility for the time-consuming process of property assessment and acquisition. • Increase the amount of money allocated for strategically targeted acquisition/ management. Bush Heritage supports the view that funding for the NRS Programme should be set around at least $300 million over 6 years. • Maintain the 2:1 support for private land conservation organisations: this provides tremendous encouragement for others to invest. • Make the Programme more strategic by targeting high priority regions and do this in conjunction with major stakeholders such as Bush Heritage and others in the private land nature conservation sector. • Continue the Indigenous Protected Areas component of the NRS Programme. • Provide associated institutional reforms through taxation incentives to encourage private land conservation and the contribution of the NRS Programme. • Work with the states to reform pastoral lease conditions to reflect conservation as a legitimate principle land use.
33.	**Legal Section, Department of the Environment and Heritage, Australian Government**	• Consideration should be given to requiring a mortgage in all cases where the Commonwealth provides funds for the purchase of properties. The mortgage will be noted on the title and will provide greater security. • The situation of a funding recipient holding a significant amount of Commonwealth funds pending satisfactory completion of a purchase could be avoided by Commonwealth only providing funds on settlement, directly to the vendor, if necessary, by prior agreement with the purchaser.
34.	**Great Barrier Reef Marine Park Authority**	• An important component of the NRS is the NRSMPA. Environmental Management activities undertaken by GBRMPA relate closely to significant components of the NRSMPA. • GRRMPA applies the WCPA management Effectiveness framework and performs well in international comparisons. • Performs well in terms of the 34 Actions outlined in the NRSMPA Strategic Plan of Action. • Through its planning processes, GBRMPA seeks to engage with regional NRM bodies responsible for catchments draining to the reef.

Submission number	Submitter	Issues raised
35.	**The Wilderness Society**	• The Wild Country Science Council has developed a new conceptual framework and integrated methods for the analysis and evaluation of biodiversity and ecological processes in order to advance the conservation of biodiversity on a landscape-wide basis, irrespective of land tenure. • The fundamental principles underlying the approach being taken include: conservation planning must take a large scale perspective (in space and time); the key elements to long term conservation planning include large, relatively undisturbed core areas, embedded within a landscape matrix of buffers and linkages; core reserves must be complemented by appropriate off-reserve management that together ensure connectivity of key ecological patterns and processes, particularly at larger space/time scales; and "Connectivity" is a foundational concept, and can be defined in terms of a set of ecological processes that demand large scale connectivity • The work of the Science Council has highlighted the need to give greater emphasis to protecting large, intact, relatively undisturbed natural areas. • Ensuring that the National Reserve System encompasses areas of low disturbance and seeks to minimize threatening processes in adjoining lands should be a priority guiding reserve selection and Protected Area Network design. • Wary of: approaches which suggest achieving % targets for reservation will secure biodiversity; approaches which focus on threatened species after they have crossed the extinction threshold; and approaches which elevate 'species richness' above the integrity of characteristic biomes/ecosystems. • Current process should be supplemented by one which: recognizes the evolved characteristics of biomes and ecosystems and the biodiversity that is optimal given the environmental and disturbance regimes; protects and restores processes that sustain ecosystem dynamics and evolutionary potential; and recognizes that 'connectivity' needs to be defined with respect to integrity (functionality) of processes as well as patterns. • A new integrated approach to biodiversity conservation could be developed where biodiversity outcomes are prioritized across all land tenures. **Recommendations** • Long term conservation planning must include large, relatively undisturbed core areas, embedded within a landscape matrix of buffers and linkages. • Core reserves must be complemented by appropriate off-reserve management that together ensure connectivity of key ecological patterns and processes, particularly at larger space/time scales. • A new integrated approach to biodiversity conservation is needed where biodiversity outcomes are prioritized across all land tenures. • Important "connectivity processes" must be applied in a substantial way to inform and guide conservation planning. • Ensuring that productive parts of the landscape receive secure protection needs to be an urgent priority for the reserve system. • The new scientific tools developed by the Wildcountry Science Council should be incorporated into traditional biodiversity assessments, to improve the basis for managing landscapes across all land tenures; help identify core protected areas; and help identify options for maximizing landscape connectivity inclusive of multi-scaled context and processes.

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35.	**The Wilderness Society**	• Five and 10 year biodiversity conservation targets should be set which maximize the public and private investment in developing cohesive Protected Area networks and complementary natural resource management plans. • Ensuring that the National Reserve System encompasses areas of low disturbance and seeks to minimize threatening processes in adjoining lands should be a priority guiding reserve selection and protected area network design. • The National Reserve System should be strengthened by incorporating new science into the scientific framework; substantially increasing investment in the development of integrated Protected Area Networks; and by increasing the level of community involvement. • A framework along the lines of that being developed by the WildCountry Science Council should be developed to help guide development of integrated landscape wide conservation plans in which governments at all levels, private conservation bodies, NGOs and local and indigenous communities are provided with incentives to participate. Such a planning framework would ensure strong integration of conservation goals across all land tenures. • A strategic approach should be developed which asks whether proposed Protected Area acquisitions would: have regional natural heritage significance; enhance the conservation value of existing protected lands; enhance the manageability of existing protected lands; protect threatened heritage values; protect vulnerable heritage values; enhance connectivity; are available for purchase; and/or facilitate strategic management partnerships. • It is critical that Commonwealth and State and Territory Governments recognise the important biodiversity, scenic and cultural heritage benefits which accrue to the Australian community through the voluntary declaration by traditional owners of IPA's. • It is recommended that Governments agree to provide long term support to enable traditional owners to build and maintain management capacity based on Australian and International best practice standards. • The management activities of other land managers, such Parks and Wildlife Services, should be coordinated and integrated with those of traditional owners. • It is also critical that policy obstacles be identified and removed to allow private sector interests, including industry, to actively support and fund management operations for Indigenous Protected Areas. • A nationally agreed hierarchy of funding and management support for classes of Indigenous Protected Areas along the lines of IUCN Protected Area categories (i)-(vi) should be developed. • It is imperative that all levels of Government cooperatively agree to establish standards of best practice management for protected areas; agree to fair and transparent management funding; and incorporate capacity building requirements in all Protected Area programmes. • It is recommended that though the COAG process, Commonwealth and State and Territory Governments agree to develop regional level funding targets for the management of Protected Areas and identify opportunities for, and barriers to, best case management.

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35.	**The Wilderness Society**	• A leadership role in the development of such an initiative should be played by the Commonwealth Department of Environment and Heritage. • Funding to deal with alien invasive species eradication and control must be substantially increased. • A detailed analysis of the economic benefits derived by all Australians from Australia's Protected Area network needs to be conducted which recognizes the full value of the ecological services provided to the community. Landholders (including government agencies) who protect these values should be economically rewarded. • NRM frameworks must incorporate biodiversity conservation objectives into their planning frameworks and their level of expertise and capacity on understanding the role of Protected Areas and biodiversity conservation must be very significantly increased.

Submission number	Submitter	Issues raised
36.	**Dr Karen Edyvane, University of Tasmania**	• The national representative system of Marine Protected Areas (NRMSPA) provides the key foundation for implementing Australia's international obligations and responsibilities to protect global marine and coastal biodiversity and ecosystems. • There is a critical need for national funding to ensure that the Taskforce on Marine Protected Areas (TEMPA) and the Commonwealth undertake national leadership of the NRSMPA and fully complete the 34 actions of the "Strategic Plan of Action for the NRSMPA' (SPA) (ANZECC TFMPA 1999). • There is an urgent need to re-focus the NRSMPA, and not particularly Commonwealth MPA planning, on biodiversity conservation, not integrated ocean management. This can be best achieved by formally de-coupling MPA planning from regional marine planning. • Because of the greater connectivity of marine ecosystems, the NRSMPA urgently needs to adopt complementary cross-shelf planning of Australia's EEZ. Future Commonwealth regional marine plans need to integrate with existing and proposed MPA systems in State/Territory waters. This approach needs to adopt consistent 'science-driven' planning methods and include 'seascapes' and ecosystem-specific planning criteria, operating principles and benchmarks, for MPA identification and selection. • One of the major challenges facing the NRSMPA is the lack of a nationally consistent science-based approach to MPA planning. Commonwealth MPA planning (under regional marine planning) currently represent a significant departure from the national MPA guidelines (ANZECC 1998). • The development of sound, ecosystem-based operational planning criteria should be the basis of a national approach to science-based MPA planning. • There is a critical need for the Commonwealth to develop a formal policy framework for the implementation of the NRSMPA in Australia's EEZ. • Given current progress in establishing the NRSMPA, it is highly unlikely that Australia will meet the IUCN World Parks Congress target of at least 20–30% of each marine habitat to be given strict (no-take) protection by 2012, particularly for Australia's temperate ecosystems. • There is an urgent need to integrate MPA planning with protected species management, particularly in Commonwealth waters, under regional marine planning.

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36.	**Dr Karen Edyvane, University of Tasmania**	• Greater efforts and resources are needed to ensure the conservation of Australia's temperate ecosystems in highly protected MPAs. • The NT, SA and Tasmania need to urgently progress MPA establishment in their jurisdictions. • The NT needs to urgently develop, progress and implement a MPA strategy. Relevant jurisdictions should consider independent statutory planning processes to implement representative MPA systems. • Multiple-use MPAs can provide useful tools for implementing the NRSMPA, but such MPAs should have sufficient levels of protection (IUCN Category 1A, II) within them. Such consistent levels of protection should be prescribed through national guidelines for the NRSMPA. • The NRSMPA needs to develop more comprehensive national guidelines and planning criteria for MPA identification and selection, incorporating best practice planning approaches. • The NRSMPA needs to develop more comprehensive national guidelines and criteria for including fisheries goals into MPA identification and selection. • The Australian Government needs to clearly ensure that fisheries spatial management goals and not structural adjustment objectives provide the key focus for offshore MPA planning (under regional marine planning processes).

Submission number	Submitter	Issues raised
37.	**Department of Environment and Conservation, NSW Government**	• The NRS Programme provides a useful and valuable contribution to the establishment and management of protected areas in NSW. • There are opportunities for improvement that need to be addressed to enhance the appropriateness, effectiveness and efficiency of the Programme. • Enhancements to the Programme should be considered particularly in the areas of private land conservation, the continued maintenance and operational management of reserves and the establishment of freshwater and marine reserves. • NSW would support a national approach to marine and freshwater protected areas in the NRS Programme. • The NRS Programme has made a positive contribution towards establishing a national CAR conservation reserve system and delivering positive outcomes for biodiversity conservation. • Lands acquired by NPWS with assistance from the NRS Programme have contributed significantly to achieving this objective. • The current NRS and the NSW reserve system still falls short of the international, national and statewide targets for achieving CAR objectives. • Future priorities in NSW for land acquisition include: - Poorly reserved ecological communities, such as Darling Depression, Riverina, Cobar Peneplain an Darling Riverine Plains bioregions; riverine forest communities of the lower Murray, Murrumbidgee, Lachlan and Darling rivers; forests, woodlands, shrublands and wetlands of all the coastal lowlands, floodplains and estuaries; box eucalypt woodlands, native grasslands, wetlands and riparian communities of the mid-western plains, western slopes and tablelands; significant karst (limestone) formations. - New core conservation areas, particularly forests, woodlands, grasslands and wetlands in the central west, the western slopes, the tablelands and places of special significance to Aboriginal people. - Wetlands, floodplains, lakes and rivers, including new protected areas in icon wetlands in western NSW along the Murray and Murrumbidgee rivers and on the tablelands, coastal floodplains and estuaries; and the declaration of high conservation value rivers as wild rivers in public reserves. - Critical landscape corridors, including linking parts of many coastal public reserves; key corridors between Central Eastern Rainforest Reserves of Australia World Heritage parks of the north coast and ranges; the east-west upper Murray River corridor between Kosciuszko and Woomargama National Parks east of Albury. • NSW would strongly support the NRS Programme regaining its former status as an NHT programme and reinstatement of the NRS Programme as a principal programme of the NHT rather than an action under the Bushcare umbrella. • The NSW Government strongly supports the current process of project assessment undertaken by DEH, as it is centralised and independent from local or regional community pressures. • The NSW Government believes that the NRS Programme is an appropriate mechanism to achieve the objectives of the establishment of a national CAR system of protected areas to conserve Australia's native biodiversity. • The current split of funding responsibilities between the Commonwealth, State and Territory Governments is not appropriate. The delivery of the NRS Programme objectives has been compromised by a reduction in Commonwealth funds since the commencement of the programme in 1996–97.

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37.	**Department of Environment and Conservation, NSW Government**	• Any evaluation of the effectiveness of the Programme in the conservation of biodiversity or in supporting social and economic benefits that are assessed over a relatively short 10-year period need to consider that full benefits are often accrued in the longer term. • The NRS Programme has delivered three important services: - a national planning framework for the strategic planning , design, establishment and management of a CAR protected area system; - funds to assist with the purchase of properties to add to the public reserve system or to be managed by suitable conservation organisations; and - a forum for the exchange of ideas between reserve system planning practitioners from all states and territories. • The NRS Programme has been particularly effective in facilitating the cooperative cross jurisdictional development of a national framework for the strategic planning and design, establishment and management of the NRS. It is commendable that the NRS Programme, through its Taskforce, has successfully developed the following: - 1. Draft standards for applying the International Union for Conservation of Nature and Natural Resources (IUCN) Reserve Categories; - 2. The Interim Bio-geographical Regionalisation of Australia (IBRA); - 3. Australian Scientific Guidelines for Establishing the NRS; and 4. Directions for the National Reserve System – a Partnership Approach. • Greater financial support is needed from the NHT to integrate bioregion-wide conservation planning and priority testing, which can ultimately guide the development of conservation efforts across all tenures, across all NHT programs and across national jurisdictions. • In NSW, the reservation of land under the NPW Act presents the following benefits: - security, resilience and continuity of protection of land in perpetuity, both legally and financially; - the public reserve management principles of the NPW Act are consistent with the IUCN management category objectives; thus, conservation reserves in NSW contribute directly to the goal of the NRS, on-going public financial investment and comparatively low-cost management of land; - legislatively-defined public accountability for, and transparency of, reserve management; - community participation in management planning and ongoing advisory roles; - professional management utilising a comprehensive range of land and water management and scientific skills; - a focus and reference point for building and strengthening conservation partnerships between government and the community; - assured ongoing public access to most areas, often with provision for education, and sustainable use and enjoyment by the public; and - social, cultural and economic benefits for regional and local communities, for example through Aboriginal co-management, tourism, employment and contracting.

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37.	**Department of Environment and Conservation, NSW Government**	• The NSW Government considers that the opportunities provided by the NRS Programme by way of funding for land acquisition, supported by the scientific frameworks developed (e.g. IBRA), have been particularly effective in allowing the selection and purchase of individual properties that would significantly contribute to meeting the comprehensiveness principle of a CAR reserve system. In particular, the IBRA priority map (Thackway and Creswell, 1995) clearly identified a significant gap in the reserve system in central and western NSW. The capacity to supplement the State's land acquisition funds via the NRS Programme resulted in a focus on bridging these reserve system gaps. In fact 85% of the properties purchased with NRS Programme funding are situated in central and western NSW. • Public reserve systems are important as they enable the strategic conservation of large areas of land instead of fragmented conservation efforts across the landscape. In addition, management agencies, such as the NPWS, are the only management bodies that have a specific management focus on threats to conservation values, such as pests, weeds and inappropriate fire regimes. • In terms of being able to measure progress towards the establishment and management of the NRS, a quantitative framework has been developed and forms a critical component of the Directions Statement (NRMMC 2005). This capacity to measure real progress against stated targets is unique to the NRS Programme. • Public reserves allow for sizeable blocks of habitat to be permanently conserved in rapidly-changing landscapes which are rarely possible through other conservation means. • Public reserves make broad scale habitat restoration possible in degraded landscapes which are undergoing rapid change, and such broad scale habitat restoration is less achievable on private lands. • At present, many private and indigenous protected areas in Australia do not meet this strict definition and are therefore not accredited within the NRS. Nonetheless, such areas do make a substantial contribution to the overall conservation of biodiversity in Australia. • Commonwealth has contributed only 11.5% of the total funding and 9% of the total land area acquired towards a CAR reserve system since 1996–97. • The 2:1 Commonwealth: State/Territory funding formula should be reinstated in recognition of the lack of any Commonwealth contribution to on-going management costs. • Access to NHT funds for pest and weed control and rehabilitation is sought. • Despite tangible outcomes from NRS Programme, it received less than 3% of NHT budget in 2004–05. • Lack of certainty of funding from year to year creates problems for land acquisition planning. • Public ownership and management of conservation reserves is internationally recognised as the tenure most likely to deliver on conservation objectives. • The long-term security and efficacy of private land conservation remains untested in some states and territories, and their success relies largely upon the institutional frameworks and incentives offered at the State and Territory level.

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37.	**Department of Environment and Conservation, NSW Government**	• Greater attention needs to be paid not only to funding for the establishment of private protected areas but also accounting for the ongoing maintenance and improvement of conservation values on these properties. • A challenge for the NRS is to develop standards for private land conservation so that the contribution of private land conservation to the NRS is real, secure, measurable and supports CAR objectives. • Public funding of private landholders for conservation activities at the national level should be contingent upon entering into formal conservation commitments. • There are significant opportunities to improve integration and coordination of private land conservation initiatives under the NRS Programme. For example, the NPWS Conservation Partners Programme provides strategic policy, operational and technical guidance, ongoing monitoring and support for landholders with private land conservation commitments. • Commonwealth and State partnerships which encourage a shared strategic and coordinated approach to the establishment and management of conservation areas, including monitoring and capacity building, are required. • NPWS studies over the past 10 years show that substantial benefits to State and regional economies arise from the setting up of publicly accessible conservation infrastructure such as public reserves within the regional landscape. • The delivery of the NRS Programme needs to be re-focused at financing conservation land acquisitions that will form part of the formal reserve system, while maintaining a level of funding for private conservation areas. • Funding for the establishment of Indigenous Protected Areas is currently provided with little or no consultation with State or Territory Governments. The establishment of future Indigenous Protected Areas should therefore occur under an agreement between the Commonwealth, State or Territory and the traditional owners to ensure that management objectives can be achieved in the long term. • The regional delivery of natural resource management strategies should ensure that they complement, support and protect reserves within the NRS and are mindful of any 'off reserve' activities that will impact on the long-term viability of the public reserves. • The application of the NRS Programme to establish a system of protected areas in perpetuity, and protected by legislation, is essential. The further development of mechanisms to support protected areas in estuarine and freshwater environments would enhance NRS ability to meet this objective.

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37.	**Department of Environment and Conservation, NSW Government**	• The various task forces established by DEH to oversee the development and implementation of the NRS Programme over the past ten years have provided valuable opportunities to progress the implementation of the Directions Statement and in particular, development of a national approach to private land conservation. • Greater flexibility needs to be built into the NRS Programme to allow for variability of spending between financial years. • Project approval needs to be better timed so that States or Territories have the majority of a financial year to undertake and complete a land acquisition project. Better forewarning of likely NRS Programme funding in future years is therefore critical for long term planning to efficiently implement the programme. The NSW Government would strongly support a three year cycle for the NRS Programme to provide greater certainty of funding and flexibility as is required when undertaking land purchase negotiations with landholders. • The opportunities for efficiency gains revolve around improved communication, coordination and integration of the NRS Programme with State private land conservation programs to avoid duplication and confusion. • Standards for private land conservation and models for integrated conservation and multiple tenure approaches to conservation should also be developed to optimise investment in conservation at the broader end of the conservation spectrum. This would allow the NRS Programme to engage and involve private and other public landholders on a much broader front, and secure conservation commitments from a wider group in the community including those landholders that need to address biodiversity management with production management or other land uses. • Identifying and seeking to enhance the economic, social and cultural benefits of reserving land would strengthen the benefits of the NRS Programme. • In summary, the NSW Government supports the continuation of the NRS Programme. Adherence to national and international policy on biodiversity requires Commonwealth, State and Territory Governments to work together to further enhance the NRS Programme to accelerate progress toward CAR reserve systems for all terrestrial and marine regions.

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37.	**Department of Environment and Conservation, NSW Government**	• It is recommended that: 1. Funding levels should be re-instated at the $2 (Commonwealth) for $1 (State) funding arrangement that was in place under phase 1 of the NHT. This arrangement needs to account for the purchase of lands plus a nationally agreed formula for their continued management (including funding from the NHT for pest and weed control and land rehabilitation). 2. The NRS Programme should be re-instated and funded as a programme in its own right under the NHT. 3. NHT funding for the NRS Programme should be administered on a 3-year cycle. 4. The priority for the NRS Programme should be to fund and maintain conservation land acquisitions that will form part of a defined reserve system, which includes public reserves and in perpetuity private land reservation and provides legislative protection and long-term security for management. 5. A level of funding should be re-instated under the NRS Programme for national integrated bioregion-wide conservation planning (e.g. identification and assessment projects) to ensure the wise prioritisation of all conservation efforts across all tenures and NHT programs. 6. The NRS Programme should encompass freshwater and marine reservation targets and biodiversity conservation outcomes. 7. The establishment of future Indigenous Protected Areas should occur under an agreement established between the Commonwealth, the State or Territory and the traditional owners. 8. Public funding of private landholders for conservation activities at the national level should be contingent upon entering into formal conservation commitments. 9. There is a need to establish a partnership between the Commonwealth and the State on private landholder conservation initiatives to ensure security and adequate resourcing of private conservation commitments. 10. The current process of NRS Programme project assessment should remain under DEH to ensure this important function remains centralised and independent from other local or regional community pressures. 11. There is a need to identify and enhance the economic, social and cultural benefits of reserving land under the NRS Programme through appropriate planning and management, including cross-tenure planning for visitor use and tourism opportunities. 12. NRS Implementation Task Group be responsible for developing a national private land conservation approach.

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38.	**Birds Australia**	• State and Territory and Federal Governments need to maintain commitment to investing in the NRS if the NRS Programme is to achieve its objective of a CAR system of terrestrial reserves. • Substantial ongoing funding is required for base-level reserve system maintenance, enhancing connectivity, buffering against edge effects and systematic research into and monitoring of biodiversity, within and outside reserves. • On-going research is essential to long-term success of the NRS Programme. Adaptive management should rely on ongoing collection and analysis of scientific data. • Land acquisition represents a unique opportunity to learn from effects of various land management techniques and improve returns on resource expenditure. • Research should receive a significant proportion of ongoing reserve maintenance investment. • Most under-represented systems occur in what are now almost exclusively agricultural areas. Temperate grasslands and woodlands should be a major and immediate focus for the NRS Programme. • Assisting NGOs in acquisition and management of land in priority bioregions should form part of the land acquisition strategy. • Strategic acquisition needs to take into account past, present and predicted habitat loss. • Many threatened species rely on both reserves and adjacent non-reserve areas. Long-term planning needs to address off-reserve strategies. Consideration should be given to education and promotion, economic incentives and legislative restrictions. • Economic and cultural benefits of strategic land acquisition should be promoted to stakeholders alongside inherent benefits of biodiversity conservation.

Submission number	Submitter	Issues raised
39.	**Australian Conservation Foundation (taken from relevant sections of the ACF submission to the Senate Inquiry into National Parks)**	• ACF further suggests that to give full effect to CAR objectives, governments should: - Work with best available science and communities to set achievable but challenging targets for conservation of areas of high natural and cultural value and ecological restoration; - Identify and correct deficiencies in the design and management of protected areas; - Ensure biodiversity conservation is a priority in natural resource management programmes and regional delivery; - Strengthen proactive conservation management in areas outside of reserves, including agricultural areas; - Improve monitoring and reporting of ecological condition and conservation management across all tenures, including by enabling community and industry participation; - Improve public appreciation of PAs, and their ecological, social, cultural and economic importance; - Raise ecological literacy in the community, work with the community and private sectors to demonstrate the importance of PA's, and encourage community participation in protected area management; - Strengthen the resources available to protected area managers and institutions to enable them to carry out their responsibilities; • Australia has made substantial progress towards a comprehensive, adequate and representative system of protected areas. This is most notable for terrestrial areas, less so in the case for freshwater and marine environments. • Australian Governments have also made some significant progress towards diversifying PA models and developing cross-sectoral partnership, including joint management with Traditional Owners, the establishment of an Indigenous Protected Areas programme, private land trusts, community conservation and conservation incentives for private landholders. • All states and territories have expanded their conservation estate. Less effort has been put into resourcing their monitoring and management, and only now are governments making a start towards the integrated management of whole land and seascapes for biodiversity conservation and ecosystem services maintenance. • The development of national bioregional management frameworks - the Interim Biogeographic Regionalisation for Australia (IBRA) and its marine and coastal counterpart, the IMCRA - has meant a more strategic approach to protected areas acquisition and management. • Despite shortcomings, the NHT (both the first and second phase; quite different programmes in many respects) has substantially improved the country's environmental information base, and hence enabled better conservation planning and management; the National Land and Water Resources Audit, in particular, has been pivotal in developing a better national picture of the state of Australian ecosystems through a series of national assessments, including the Australian Terrestrial Biodiversity Assessment (2002).

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39.	**Australian Conservation Foundation (taken from relevant sections of the ACF submission to the Senate Inquiry into National Parks)**	• NHT funding for the National Reserves System Programme has been crucial in establishing new protected areas, including Indigenous Protected Areas and private land conservation estate. The NRSMPA has similarly been important for marine protected areas. • ACF is deeply concerned that NHT2 appears to have systematically excluded Indigenous interests in protected areas acquisition and management. • The NRS Programme 2:1 cost-sharing arrangement has made it possible to leverage substantial State and Territory, private, and community investment in PAs acquisition and management. • A sustained and strategic funding stream is fundamental to maintaining and upgrading the national reserve system, i.e. meeting nationally-agreed targets for a CAR system of protected areas. Funding is crucial to meeting acquisition costs, to basic and applied conservation science (including benchmarking studies), to effective stakeholder engagement, to strategic planning, to managing the threats to PA objectives and values outlined above, and so on. • Funding of this kind now, coupled to a long-term commitment, is a strategic investment in the future of Australia's natural assets that is likely to yield greater returns to the community and to industry into the future. • ACF deplores the steady erosion of the Australian Government's funding commitment to the NRS Programme; from $20.6M in 2001-02 to around $6M in 2005-06 according to the Department of Environment and Heritage. • As important as it is to invest in sustainable landscape management beyond protected areas, it is especially important to remember that protected areas are a key element in sustainable NRM. The point has already been made that they are also a cost-effective approach to maintaining natural heritage and ecosystem services. • Reserve and off-reserve management should be complementary, and public investment in both should reflect this principle. It is unclear to what extent parks and reserves have been adequately addressed in the shift towards regional NRM delivery, but early indications give us cause for concern. • ACF believes that there is an urgent need to strengthen the scientific underpinning and strategic delivery of regional NRM at the same time as consolidating the NRS. • Given the benefits of a consolidated NRS (as shown by Moreton, *et al.* 2001), given that governments are slipping behind in meeting their conservation targets, and given the cost-effectiveness of reservation, ACF believes that the Council of Australian Governments should - in line with PMSEIC's recommendation – commit to six years funding of $350M to augment the NRS on a 2:1 cost-sharing arrangement between the Commonwealth and the states/territories.

Submission number	Submitter	Issues raised
40.	**WWF–Australia (taken from the relevant sections of the WWF–Australia submission to the Senate Inquiry into National Parks)**	• According to a recent study undertaken by Griffin NRM Pty Ltd (2004) for WWF–Australia, Australian Governments are behind in meeting a number of national biodiversity targets, including those relating directly to the consolidation of the NRS Objective 1.2 of the National Objectives and Targets for Biological Diversity Conservation 2001–2005. • Approximately half of the country's bioregions are a high priority for further reservation and proactive conservation management actions if Australia is to meet its target of a CAR reserve system. Moreover, around 1,500 ecosystems are now recognised as threatened; many of these should be targeted for protective management. Given the high level of fragmentation of terrestrial ecosystems, it is also important to focus attention on maintaining and restoring habitat connectivity between ecological communities. • Amongst the assessment's key recommendations were calls for legislated framework for ecological monitoring (together with proper resourcing), and an urgent call to consolidate the reserves system given the pressures on native vegetation and river systems. ACF supports these calls wholeheartedly. • Core elements of a national framework that proactively tackles climate change include: - Implement a systematic, integrated approach to re-building resilience across priority ecosystems, and the communities and agencies that manage them; as well as minimising threatening processes. • Recommendation 1: That the NRM Ministerial Council explicitly recognise the pressing need to establish the National Reserve System and that sufficient funds should be provided by governments to ensure that the targets in the *Directions for the National Reserve System – A National Partnership Approach* are implemented within agreed timeframes. • Recommendation 2: That the Australian Government reaffirm its critical leadership and enabling role in the establishment of the National Reserve System through promoting national planning and providing substantial funding through NHT2 and the proposed NHT3. • Recommendation 3: That for 2005/06–2006/07, NHT2 invest a minimum of $20m/yr for NRS related land acquisitions. • Recommendation 4: That the proposed NHT3 delivery framework include establishing and effectively managing a comprehensive, adequate and representative system of protected areas as an explicit priority area of activity. • Recommendation 5: That the NHT3 delivery framework include a national investment stream with block funding of between $20m/yr-$40m/yr for NRS related land acquisitions to enable the 80% comprehensiveness target under the *Directions for the National Reserve System – A National Partnership Approach* to be achieved by 2010–2015. • Recommendation 6: That the cost sharing arrangements between the Australian Government and other government partners should revert to at least the 2:1 basis as recommended by the HORSCERA inquiry in 1993. Consideration should also be given to the Australian Government assisting with some establishment costs to balance the on-going management costs, particularly in relation to the acquisition of any large reserves in the Northern Territory and South Australia.

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40.	**WWF–Australia (taken from the relevant sections of the WWF–Australia submission to the Senate Inquiry into National Parks)**	• Recommendation 12: That Parks Australia and the Australian Greenhouse Office undertake detailed studies into the most appropriate protected area acquisition strategies required to enable effective climate adaptation, including the proposed Eastern Australian Great Escarpment Corridor (p.7). • Recommendation 15: That the Australian Government maintain the NRS 2:1 funding formula for private conservation organisations. • Recommendation 16: That States and Territories allocate additional resources to increase the standard of management across bioregions. • Recommendation 17: National Representative System of Marine Protected Areas WWF recommends that the Australian Government increase resourcing: of the application of the principles of integrated, spatial ecosystem based management as the roll-out of the NRSMPA continue; to increase the momentum in which the NRSMPA roll-out can occur, not only to meet Australia's international obligations, but also in recognition of the under-representation of large areas of Australia's waters in protected areas; for the identification of further sites of high conservation value to achieve a comprehensive, adequate and representative system in Australia's EEZ; to build the data/knowledge base where necessary by undertaking scientific research programs. For many of the stakeholders the lack of data is seen as a reason not to protect until the level of knowledge gives reason to apply high levels of protection. Resources must be applied to gathering data, but meanwhile the precautionary approach must be applied. • Recommendation 18: Great Barrier Reef Marine Park: WWF recommends that the Australian Government increase resourcing: to adequately resource GBRMPA to remain an independent statutory authority while increasing its resources to deal with the increasing severity of threats impacting on the GBR from outside the marine park. These include: coral bleaching, land-based sources of pollution, shipping and illegal fishing; to review and strengthen the existing Dugong Protection Area network. In the southern GBR, all Zone B Dugong Protection Areas should be upgraded to Zone A status; and a new Zone A network of Daps should be established in the northern GBR; to extend the eastern boundary of the Great Barrier Reef Marine Park eastwards to include the Coral Sea reefs and surrounding waters of the Coral Sea. The extended Park should include a comprehensive network of no-take zones to highly protect the reefs of the Coral Sea. • Recommendation 19: Northern Australia WWF recommends that the Australian Government increase resourcing: · to accelerate the development of the National Representative System of Marine Protected Areas (NRSMPA) in northern Australia; to work collaboratively with the Governments of Queensland, Western Australia and the Northern Territory to implement complementary MPAs across Australia's north; to continue to develop an Indigenous Sea Ranger Programme in northern Australia that; is developed in liaison with Indigenous communities, Land Councils, State/Territory Government departments, non-government organisations; is flexible enough to ensure that local Sea Ranger groups develop in a way that is appropriate to them; provides sustainable funding arrangements with properly paid positions (e.g. at Park Ranger rates) to the Sea Rangers and has a career path; incorporates accredited training; has reporting requirements that are accountable but not onerous.

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41.	**Department for Environment and Heritage, South Australia**	• The National Reserve System Programme has made a significant contribution towards the conservation of biodiversity in conjunction with other funding programs under the Natural Heritage Trust. • While the appropriateness and effectiveness of the sound scientific basis and framework for establishing a comprehensive, adequate and representative reserve system is acknowledged there are also some major challenges and opportunities that should be addressed in the future, including: - meeting the cost of establishing and managing protected areas; - filling in knowledge gaps; - providing incentives and support to meet targets and priorities for the protected area system; and - long-term security and management of private protected areas. • It is essential that adequate resources are provided by the Australian, State and Territory Governments in order to meet these challenges and ensure the continued establishment and maintenance of an effective national reserve system. • **Recommendation 1:** It is recommended that there be a renewed commitment by the Australian Government to funding for the National Reserve System Programme as a principal programme of the Natural Heritage Trust (or its successor) and that the two thirds contribution towards land purchase for State or Territory conservation agencies be restored. • **Recommendation 2:** It is recommended that consideration be given to provision of funding for initial establishment costs for protected areas. • **Recommendation 3:** It is recommended that the principles underlying the National Reserve System be reviewed to ensure funding decisions can be made in a manner that achieves the best outcome for long-term conservation, by building on the CAR approach and addressing issues such as threats, connectivity and resilience. • **Recommendation 4:** It is recommended that: - land acquisition funding should be linked to the long-term security of tenure of the land for conservation purposes and the capacity for on-going management; - the National Reserve System Task Force review the regulatory framework for private protected areas, including Indigenous Protected Areas, the applicability of IUCN protected area categories, and a clearer articulation of their role and contribution to a National Reserve System; and - State and Territory conservation agencies should have a role in providing advice on funding private land acquisitions.

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42.	**Parks and Wildlife Service, Tasmanian Government**	• The Tasmanian Parks and Wildlife Service (TPWS) strongly supports the *Directions for the Reserve System – A Partnership Approach* published by the Natural Resource Management Ministerial Council in 2005. It provides a valuable, accessible guide to the development and management of a truly comprehensive, adequate and representative national reserve system to maintain and enhance Australia's exceptional natural diversity whilst providing great enjoyment to current and future generations as well as a steady flow of social and economic benefits, especially to regional communities. • From wide practical experience TPWS concurs with the observation in the Directions Statement (p. 8) that conservation of intact native ecosystems is far more cost effective than attempts to re-establish them after they have been significantly degraded. • Notes and supports targets to progress achievement of a CAR NRS by 2010–2020. An expanded NRS Programme to assist the achievement of these targets is considered to be national priority. • Given that all opportunities for fully achieving the Tasmanian component of the NRS on public land have been taken, remaining gaps in the system can now only be filled at an appropriate high level of security through private land purchase or secure perpetual covenants on private land. This is where the NRS Programme has already played an important role and hopefully can continue to do so. • The NRS Programme, through its support for the Protected Areas on Private Land (PAPL) Project in Tasmania, has been successful in establishing over 100 private conservation covenants with individual landowners, protecting over 4000 hectares of priority land. • Several important private land blocks have also been purchased directly with NRS Programme funding. • Under the Directions Statement, the NRS provides clear targets, standards for reservation and management as well as provisions for monitoring and evaluation. As such, it provides a framework for very secure and transparent outcomes for biodiversity conservation compared with other programs. • The NRS Programme has highly appropriate mechanisms for assessing priority areas for the Comprehensive, Adequate and Representative reserve system (CAR). This system of assessment of priority is used by the Protected Areas on Private Land (PAPL) Project, and is compatible with other private land covenanting programs being offered in Tasmania for assessing priorities for the CAR reserve system. • The National Reserve System is highly appropriate as a funding mechanism to achieve biodiversity conservation, particularly in relation to the establishment of the protected area network. • While many NHT programmes provide funding for weed control and revegetation activities, providing incentives to private landowners to protect existing native vegetation in private reserves is the most effective means to conserve biodiversity on private land, and funding for these programs is most effectively delivered through the NRS Programme. • An unintended outcome of the NRS Programme is that some areas of conservation importance may be disregarded if they do not meet NRS or RFA guidelines. For instance, in the past proposals to protect and gain funding for some highly significant conservation values outside the NRS, notably karst, have had to be couched in terms of their threatened species.

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42.	**Parks and Wildlife Service, Tasmanian Government**	• The public land component of the NRS provides long term security and formal public recognition of conservation values and benefits supported by experienced and professional management agencies. The large size of some public reserves provides added long-term security against incremental degradation through edge effects, weed and disease invasion, climate change, urban encroachment etc. • The private land component of the NRS, with its reliance upon voluntary inclusion of landowners in the programme, increases the unpredictability of its success. However, this component is vital to achieving a CAR system in the state. • Overall, the NRS Programme is an effective programme provided it is implemented and funded as necessary. • The NRS provides a good statewide strategic approach while NRM is more regional. There may be a need to develop other approaches to provide for strategic protection of species and environments that don't conform to existing regionalisations, e.g. migratory birds, wetlands. • The NRS Programme is a dedicated programme to securely protect conservation values, i.e. through purchase or covenants in perpetuity etc. Covenants are binding on all future landowners. Other NHT programs, although more widely spread, tend to be shorter term with less certainty about long term outcomes. • The NRS Programme compares well with other NHT measures in terms of leveraging funds for biodiversity conservation. By forming partnerships with State Government agencies, the Tasmanian Land Conservancy and Tasmanian Farmers and Graziers Association, the NRS Programme ensures the ongoing funding support of these organisations. In addition, as many landowners appreciate the ongoing relationship with the Programme, they are more willing to contribute their own resources to improving the condition of their priority native vegetation under private agreements (for example through weed control activities etc). • The NRS Programme has proven to be effective in achieving economic, cultural, social and community benefits. The PAPL Project has been successful in promoting the involvement of the community and has developed a strong network of landowners who are promoting the benefits of private protected areas to their friends and neighbours. The longevity of the NRS Programme PAPL Project has further promoted the links with the community and the support for landowners with private protected areas. • The NRS Programme has enabled the PAPL Project to develop private covenants on title and contributed significantly to these costs. Ongoing management costs associated with conservation covenants are borne by the State Government. • The NRS Programme has been successful in promoting conservation covenants to the landholder community in Tasmania through the PAPL Project. Covenants are now considered to be quite acceptable, and in many cases, a good option by many landowners. • In addition the NRS Programme has supported the establishment of the Tasmanian Land Conservancy, which has started to successfully purchase priority properties and purchase areas for formal reserves. • Consideration could be given to expanding the guidelines and objectives of NRS to meet the full range of conservation priorities e.g. geoconservation, cultural heritage.

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42.	**Parks and Wildlife Service, Tasmanian Government**	• There is scope for greater integration between all programs to address areas falling outside guidelines of each, but still worthy of protection, e.g. areas may fall across two or more programmes and there should be the ability to readily tap into each programme proportionally. • There is scope for improved integration of on and off reserve conservation work. • Consideration could be given to ways of making the NRS Programme more flexible in its approvals so as to take advantage of opportunistic purchases etc and to allow for often lengthy delays in reaching voluntary agreements with landowners.
43.	**National Farmers Federation**	• ToR refer to the NRS in the context of sustainable NRM. If this is an indication of the future direction of the NRS Programme 'then we are extremely encouraged.' • Planning context for the NRS establishes two basic approaches as essential to achieving effective biodiversity conservation across landscapes. NFF perceives them not as distinct approaches, but lying on a continuum. • Not convinced that separate buckets of money attached to delivery frameworks rather than outcomes are the right way to go. • Environmental outcomes need to be clearly articulated with the most appropriate tools being used to achieve them. • Framework for NRS could potentially benefit from more flexibility, re timeframes, protection mechanisms and priorities. • Need to enhance the links between Australian Government priorities for NRS and on-going delivery through current regional CMA model. • The broader public through the Australian Government has long recognized that it is impossible to deliver suitable environmental outcomes for Australia without including private land. • NFF working with DAFF to develop a stewardship programme to support farmers in delivery of long-term public-good environmental outcomes. • Many of the principles on which the stewardship concept is based are shared by the NRS Programme. • It would be extremely valuable to consider how the objectives and goals of the NRS Programme might assist in delivery of an incentives based regime and vice-versa. • It is incumbent on the NRS Programme to provide for suitable on-going management of protected areas not only with financial support but also appropriate technical and scientific research and development. This is not only to ensure biodiversity values are maximized but also to minimise impact on private lands and farm production. • Many of the best protection techniques for certain species and habitats integrate modern farming practices such as no tillage and optimized grazing regimes (e.g. Blue grass ecological communities).

Submission number	Submitter	Issues raised
44.	**Australian Wildlife Conservancy**	Recommendation: • Clarify the goals of the NRS by reference to measurable criteria. • Provide information that will allow progress against such criteria to be measured and future priorities identified. Such information should include, for example: - How many ecosystems are there in Australia? - How many are 'protected'? - Where are the ecosystems that are not protected and so should be targeted? • Perhaps most fundamentally – what is an 'ecosystem' for the purposes of this programme? Is there one national definition or are we using different definitions in each jurisdiction? **Recommendation:** • *Short-term:* The NRS Programme needs to recognize that non-government organizations cannot guarantee permanent destocking of a pastoral lease unless consent is obtained from the relevant State Government. This position should be reflected in the Funding Agreement – e.g. the agreement could state that the NGO will destock to the extent permitted by State law. • *Short-term:* Before providing funding, an assessment needs to be made as to the risk of timber being allocated to a third party. • *Short-term:* The Funding Agreement needs to recognize that, under current laws, NGOs cannot guarantee no mining. • *Medium-term:* The Federal Government should amend the EPBC Act to allow conservation agreements to be entered into between the NGO and the Federal Government AND for such agreements to over-ride State laws – in this way, a conservation agreement between the Federal Government and the NGO could authorize destocking and could possibly protect timber resources and prevent mining on areas purchased for the NRS. Alternatively, the Federal Government needs to take the lead in negotiating amendments to State legislation to authorize conservation as the primary land use on pastoral leases. **Recommendation:** • The Federal Government should require proponents (public and private) to report on the effectiveness of on-ground management and the health of relevant ecosystems at designated intervals. It will be necessary to develop a flexible, outcome-based framework for such reporting. • There should be a programme of on-ground, independent audits of NRS properties. **Recommendation:** • The Federal Government needs to define a clear and transparent mechanism which is triggered if an audit (see above) reveals that management of the property is failing to protect the values for which the property was purchased. Such a mechanism might include: • an assessment by an independent expert; • an opportunity for the proponent to take action recommended by the independent expert; and • as a last resort, an option for the Federal Government to acquire the property (at a price reflecting its initial contribution) and to transfer it to another private or public organisation with a proven track record in managing NRS properties.

No. 44 continued on next page ...

Submission number	Submitter	Issues raised
No. 44 continued from previous page ...		
44.	**Australian Wildlife Conservancy**	**Recommendation:** • That the Federal Government provide an amount equal to 50% of the purchase price for both government and non-government acquisitions. **Recommendation:** • That 50% of the Federal Government contribution can be set aside in a permanent investment fund generating income for management of the property, provided that the Federal Government contribution to the fund is matched by the proponent. **Recommendation:** • The Federal Government should confirm that NRS Programme funds are available to secure the execution of a conservation agreement (covenant) over a part of a property. It should be possible to apply the NRS Programme funds toward a capital payment to a landholder who surrenders, via a conservation agreement, certain rights in relation to the relevant property (e.g., the right to graze cattle). **Recommendation:** • The NRS Programme should continue to fund the acquisition of properties by private organizations and public agencies. Preference should not be given to either public or private projects per se. In selecting which projects are to be supported, the Government should consider only the relative contribution of the property to the achievement of the goals of the NRS Programme (see item 1 above) and the record of the proponent in delivering effective on-ground management of NRS properties (or its potential to do so, if the proponent is new).

Attachment 4

Mid Term Review of the NHT-NRS Programme 1999: Recommendations

Programme Overview

1) Maintain and extend the operation of the NRS Programme.
2) Increase funding available to the programme for land acquisition to at least the level recommended by HoRSCERA.
3) Refine and release the Strategic Plan for the NRS Programme.
4) The NRS Programme should identify and promote the economic and social benefits of protecting areas under the NRS.
5) The Commonwealth should encourage State Governments to make a defined commitment to land acquisition funding for the life of the NRS Programme.
6) The current partnership arrangement that stipulates a 2:1 funding share should be maintained. Other financial arrangements should be explored (including enhanced management costs) to improve the capacity of conservation agencies to commit to NRS Programme projects.
7) Applicants' commitment to start-up costs and costs associated with developing interim management arrangements for new reserves should be considered as part of the contribution where it can be demonstrated that these costs are essential to control threats to the site.
8) Land acquisition should be maintained as the major priority for funding under the Programme.

Land Acquisition

9) The NRS Programme should, in cooperation with the States and Territories, initiate a major structured programme of protection and acquisition in high priority IBRA regions where threats to biodiversity values are high.
10) The NRS Programme should investigate and develop a more flexible approach to providing funding to the States including provision of funding based on an agreed annual programme, funding for a class of sites and funding to identify and acquire specific values.
11) In addition to the above measures, the NRS Programme and States should develop and implement procedures to ensure that applications are developed, assessed and approved in a timely manner to reduce lost purchase opportunities.
12) Minimum standards should be developed for statutory covenants and other legal mechanisms in order to ensure that private land is protected and managed in perpetuity for identified conservation values.
13) The NRS Programme should utilise the conservation provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* to develop private land protected areas within the NRS where there are no suitable State level mechanisms.
14) The concept of Protected Area Networks should be further developed and promoted as a means of achieving NRS goals in fragmented ecosystems.
15) The NRS Programme should develop and support initiatives that facilitate the achievement of its biodiversity objectives in the broader landscape including support for regional planning strategies and catchment plans.
16) The NRS Programme should continue its community programme including actively sponsoring the protection of high priority areas through private groups, revolving funds and land trusts.

Change in Comprehensiveness, Adequateness and Representativeness of Ecosystems in Reserve Systems and Protected Areas

17) The NRS Programme should give priority to land acquisition proposals that add unrepresented, poorly represented and threatened ecosystems to the National and regional reserve system.

18) The NRS Programme should seek to pro-actively target threatened ecosystems especially where the risk of irreversible loss is high.

19) The Commonwealth should encourage the introduction by all States of controls over land-clearing as a matter of urgency, especially in regions that are a high priority for the NRS.

20) The NRS Programme should provide support for projects that specifically address the protection of public land supporting poorly represented and threatened ecosystems through the inclusion of such land in the reserve system or the development of management agreements.

21) Develop strategies to ensure that Commonwealth land with significant values for the NRS is protected either through transfer to the states or other management organisation or through binding management agreements.

Improvement in Knowledge of Conservation Status of Ecosystems and Representation in the Reserve System

22) The IBRA should be further refined and its level of resolution increased to include provinces and ecosystems.

23) The Commonwealth should regularly review priorities for protection in the light of additions to the reserve system and changes to threats and other factors.

24) The NRS Programme should encourage and support investigative or planning projects that identify major gaps in national and regional reserve systems.

25) Information regarding the distribution and status of regional ecosystems should be developed in a consistent manner by the States with Commonwealth support.

26) The NRS Guidelines should be sole basis for assessing the merit of proposals for the development of the NRS.

Management of protected areas in accordance with IUCN categories and best practice

27) State Governments should provide adequate resources for the effective management of conservation reserves.

28) The NRS Programme should develop incentives to assist States and other parties to ensure that land acquired under the Programme receives adequate management resources.

29) The NRS Programme should ensure that management plans are being produced for new reserves by the States and Territories. Systems for reporting and monitoring of the development of management plans should be improved.

30) The NRS Programme should encourage the systematic implementation of best practice management.

31) The development and implementation of ANZECC best management practices should be integrated into the Programme.

Interest by Landholders and Others to Contribute to the National Reserve System

32) The NRS Programme should seek to participate in the development of appropriate incentives for long-term nature conservation on private land.

33) State and Commonwealth Governments should conduct community awareness programs for the NRS, including information programs specifically directed at community groups, landholders and local government.

34) The importance of community involvement to the success of the programme should be highlighted and promoted.

35) Involve Local Government by explaining relevance of programs, availability of funding and opportunities for involvement.

Quality of Performance Information and Required Monitoring

36) The States should provide the required performance information to the Commonwealth on an annual basis to enable accurate and efficient evaluation of progress towards goals.

37) NRS Programme should ensure that Programme Administrator is able to readily provide appropriate data to monitor projects.

38) CAPAD should be reviewed and updated on an annual basis using information provided by the States.

39) Regional targets for achieving NRS objectives should be developed and applied where appropriate.

Barriers and Other Issues

40) Projects should only be funded where they clearly meet the guidelines for the Programme.

41) The Commonwealth should develop a strategic framework for the integration of biodiversity programs within Environment Australia.

42) The NRS Programme should provide more information to State Assessment Panels about the achievements and guidelines of the programme.

43) The NRS Programme should improve mechanisms for providing advice and information to proponents on successful and unsuccessful project applications.

Attachment 5

Directions to progress the Comprehensive, Adequate and Representative National Reserve System

(from Natural Resource Management Ministerial Council (2005), *Directions for the National Reserve System – A Partnership Approach*, Australian Government, Department of Environment and Heritage, Canberra, ACT, Table 1, pp.8-12)

Progressing comprehensiveness

1. Examples of at least 80% of the number of extant regional ecosystems in each IBRA region are to be represented in the NRS.

Progressing adequacy

2. Protected areas are selected and managed to maximise the probability of survival of their biota through:

- including replication of sampled regional ecosystems;
- being of sufficient size and condition to ensure long term sustainability;
- being managed within a bioregional planning context;
- optimising opportunities for species dispersal between protected areas.

As part of the consideration of long-term targets outlined in Direction 11, particular attention will be given to providing more measurable criteria for progressing adequacy.

Progressing representativeness

3. Examples of at least 80% of the number of extant regional ecosystems in each IBRA subregion are represented in the NRS by 2010–2020.

Protecting threatened species and ecosystems

4. As a priority, critically endangered and endangered species and regional ecosystems in each IBRA region are included in the NRS by 2010. (Section 2.3.1).

5. Significant progress is made towards inclusion of vulnerable species and regional ecosystems in each IBRA region in the NRS.

Updating biogeographic regionalisation framework

6. IBRA subregionalisation and IBRA V6 to be finalized for publication by 2005.

Freshwater ecosystems

7. The current understanding of freshwater biodiversity in relation to CAR to be reviewed and an agreed approach finalized, which may include future amendments to the NRS Scientific Guidelines, to ensure freshwater ecosystems are appropriately incorporated within the NRS.

Assessing priorities

8. Pre-European vegetation mapping coverage at 1:250,000 scale or better to be completed to assist with planning priorities in the intensive land use zone and identification and mapping of freshwater systems at an appropriate scale is commenced.

9. Priority IBRA regions to be reviewed for the NRS and updated regularly.

10. State, Territory and Australian Government NRS Implementation Plans to be developed for each priority IBRA region.

Long-term targets

11. Natural Resource Policies and Programs Committee (NRPPC) of NRMMC to consider recommendations for long-term targets for the NRS taking into account the JANIS Reserve criteria which apply to forest ecosystems.

Monitoring progress of NRS development

12. Biennial reports to be prepared on the comprehensiveness, adequacy and representativeness of ecosystems in the NRS as per the NRS Scientific Guidelines.

IUCN categorization

13. Protected areas will continue to be reported on by IUCN categories, in accordance with IUCN Guidelines, and identified anomalies are to be resolved for CAPAD 2004.

NRS standards

14. Mechanisms for protection and management of protected areas (both private and public) to be assessed in each jurisdiction against the NRS Standards and after consultation necessary enhancements made.

Private protected areas

15. An all Jurisdiction approach to be co-ordinated to assist capacity building for the Private Protected Areas and Indigenous Protected Areas component of the NRS.

16. An annual national forum to be convened for managers (both government and non-government) of protected areas to discuss implementation of relevant directions in the Directions Statement.

17. Covenanting and the use of revolving fund arrangements to be implemented as part of the NRS where appropriate and managers of revolving funds to be encouraged to give priority to implement NRS objectives.

18. As incentives will be necessary to achieve the NRS, continue to investigate and implement.

Achieving National Reserve System standards

19. A review of current legislation to be conducted in each jurisdiction, including covenanting arrangements and legislation relevant to leasehold lands, and if necessary and feasible action taken to ensure there is a clear nexus between enabling legislation and reserve system objectives.

20. Processes and legislation will be examined in each jurisdiction to ensure that any proposal to excise an area from a NRS Protected Area is made subject to a process of public notification.

21. Model documentation including agreements and covenants will be prepared for use by intending PA managers and be accessible on the NRS website. These shall incorporate all standards referred to in section 3.2.

22. Inclusion of the relevant State/Territory will be sought as a party to each agreement establishing a Private or Indigenous Protected Area.

Protected area mechanisms

23. Jurisdictions, and those establishing and managing protected areas, where appropriate to investigate possible collaboration/partnerships with private organizations including business in regard to establishment and management of particular protected areas.

Code of Management

24. A national code of management should be developed to ensure protected area management is of an appropriately high standard.

25. Nature conservation agencies or appropriate NGOs should encourage partnerships with private protected area managers to provide advice, assistance, and training and support as required.

Monitoring reserve establishment

26. Protected areas in each jurisdiction, which meet NRS standards and which therefore qualify for listing in the Collaborative Australian Protected Areas Database (CAPAD), to be reported on, detailing the attributes of each protected area and its contribution to CAR. Such reports are to also include information on any NRS-qualifying Private Protected Areas to which the jurisdiction is a party, to ensure there is a comprehensive register of all qualifying protected areas for each jurisdiction. The Australian Government will continue compiling CAPAD.

Public funding accountability

27. Protected Area managers to maintain public reporting processes and observe public accountability standards.

Management of protected areas

28. Management plans, or where this is not possible, statements of management intent, to be in place for all existing NRS Reserves and for any new reserves within 3 years of establishment unless Native Title Act considerations preclude this.

29. Interim management guidelines to be in place within 9 months of acquisition of protected areas under the NRS Programme.

30. Protected areas to be managed in accordance with fire management plans which take into account the purpose of reservation and management objectives for the protected area and take into account issues such as public safety, the ecological role of fire, landscape effects of fire, indigenous use of fire, and asset protection.

31. Principles for key management issues to be developed based on best practice standards for protected area management.

Involvement of indigenous communities

32. A process for engagement of indigenous communities in protected area management to be in place in each jurisdiction.

Legislative mechanisms for PPA management

33. The potential for the application of relevant laws to be investigated to assist in the protection of values on Indigenous Protected Areas and Private Protected Areas in each jurisdiction.

Management effectiveness

34. A reporting system, such as State of the Parks report, which identifies programs to monitor management effectiveness and progress towards achieving protected area objectives, to be in place in each jurisdiction.

Best practice management

35. An assessment against ANZECC best practice standards to be undertaken in each jurisdiction as part of the regular State of the Parks reporting.

Funding arrangements

36. A joint partnership approach to be maintained for funding NRS acquisitions and new partnerships to be considered where appropriate. Governments to consider sources and quantum of funding for the NRS.

Core data sets

37. A work programme to be developed for the identification, acquisition and maintenance of core data sets required for the NRS.

Community awareness and involvement

38. A communication strategy to be prepared to increase awareness and understanding of the objectives and achievements of the National Reserve System.