



Your Ref:
Our Ref:
Enquires: Jim Sharp:JG

Phone: 9442 0304
Fax: 9386 1286
Email: sharonb@calm.wa.gov.au

Dr Jacqueline Dewar
Acting Secretary
Australian Senate
Environment, Communications, Information
Technology and the Arts References Committee
Parliament House
CANBERRA ACT 2600

Dear Dr Dewar

**INQUIRY INTO AUSTRALIA'S NATIONAL PARKS, CONSERVATION RESERVES AND
MARINE PROTECTED AREAS**

I refer to your letter of 16 December 2005 inviting submissions to the Senate *Inquiry into Australia's national parks, conservation reserves and marine protected areas*.

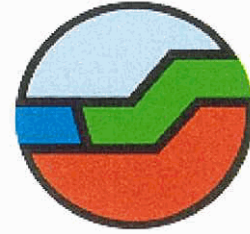
The Department of Conservation and Land Management (CALM) is Western Australia's lead conservation and protected area management agency and is pleased to provide the attached submission.

I would welcome the opportunity to discuss this submission with the Senate Committee in a formal hearing or through any other means, including any visits to Western Australian national parks, marine parks or other protected areas that the Committee may be planning.

Yours sincerely

Keiran McNamara
EXECUTIVE DIRECTOR

14 March 2006



**Department of Conservation and Land Management, Western
Australia**

**SUBMISSION TO THE SENATE INQUIRY INTO
AUSTRALIA'S NATIONAL PARKS, CONSERVATION
RESERVES AND MARINE PROTECTED AREAS**

March 2006

1. PREFACE

The Western Australian Department of Conservation and Land Management wishes to preface this submission with the following remarks:

- (i) Our national parks, marine parks and other conservation reserves are of enormous importance and value to the nation and indeed the world, for their environmental economic and social benefits. They protect many places of great beauty, natural richness, and spiritual and cultural significance.
- (ii) Protected areas provide the primary means for conserving Australia's rich and highly endemic biodiversity. Many of our wildlife species and ecosystems need protected areas for their survival, and cannot persist in alienated or fragmented landscapes that are used for other purposes.
- (iii) Protected areas are an incredibly valuable resource for our nature-based tourism and recreation industries, and make a significant but not adequately quantified or recognised contribution to local, regional, State and national economies.
- (iv) The formal public system of national parks, marine parks and other like reserves is the lynchpin of the protected areas system. Private protected areas and Indigenous Protected Areas have an important role to play, but should be seen as complementary to, rather than substituting for, the formal conservation reserve system.
- (v) The Western Australian system of terrestrial and marine conservation reserves is still well short of meeting the criteria of comprehensiveness, adequacy and representativeness, and therefore is still expanding and needs to do so. The State Government is allocating significant funding for this purpose, however the Australian Government has substantially reduced its contribution in recent years.
- (vi) Effective management of the conservation reserve system is essential. State Government funding for this purpose has steadily increased, and other sources of funding and support need to continue to be pursued and nurtured (e.g. park revenues, corporate sponsorship, volunteers).
- (vii) The role and importance of marine protected areas appears to be less well understood and accepted in the general community than is the case for their terrestrial counterparts. This needs to be addressed via improved scientific, awareness and engagement programs.
- (viii) The Australian Government appears to have moved away from its previous strong support for the National Reserve System, in favour of promoting and financing more generalised natural resource management programs which are heavily focused on primary production lands, and similarly in favour of private conservation reserves, as opposed to investing in the formal conservation reserve system that has long-term security, public ownership and public access.
- (ix) At the same time there has been growing criticism of protected areas and their management from some quarters, for example in respect of fire, pest and weed management, but this is often apparently based on ideological views. This leads to short-sighted calls that no extra parks and reserves should be established because "they can't manage what they've got".
- (x) There needs to be a renewed and shared commitment to the fundamental importance of the concept of, and the necessity to invest adequately in, our system of national parks, marine parks and other protected areas, both for the present and for a sustainable future for Australia and indeed the world.

2. INTRODUCTION

The Western Australian Department of Conservation and Land Management (CALM) is the State's lead agency for the establishment and management of the terrestrial and marine protected area systems.

In responding to the call for submissions to the Senate *Inquiry into Australia's national parks, conservation reserves and marine protected areas*, it is important to outline CALM's role and legislative responsibilities, the overarching international, national and State policy settings guiding CALM (and other State and Territory protected area agencies) in protected area establishment and management, and the current status of the terrestrial and marine conservation reserve system in Western Australia. This is addressed at the beginning of this submission and is followed by comment on each for the five terms of reference of the inquiry.

3. DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

As at 30 June 2005 CALM managed 25.4 million hectares of national parks, conservation parks, nature reserves, marine parks, marine nature reserves, marine management areas, State forest, timber reserves and other lands, including lands purchased for conservation and not yet formally reserved. The terrestrial conservation reserve system and State forest and timber reserves, and the marine reserves system are vested respectively in two statutory bodies established under the *Conservation and Land Management Act 1984* (CALM Act), namely the Conservation Commission of Western Australia and the Marine Parks and Reserves Authority. Both have appointed, community-based memberships and are responsible for proposing management plans to the Minister, auditing CALM's management against those management plans, providing advice to the Minister, and reporting to the Parliament.

The formal conservation reserve system in Western Australia features a legislative framework (CALM Act and *Land Administration Act 1997*), public ownership and access, formal management plans prepared with public input, public accountability mechanisms including agency annual reporting, statutory auditing, and Ministerial and Parliamentary oversight.

In addition to this framework for the establishment and management of the formal conservation reserve system, CALM has a wide range of expertise, including a strong research function which is fundamentally important to the successful delivery of biodiversity conservation and protected area management objectives.

The Department has three major outputs which deliver conservation and land management outcomes and services:

- nature conservation;
- parks and visitor services; and
- sustainable forest management.

The Nature Conservation Output seeks to enhance and protect the conservation of the State's biodiversity (the variety of life forms: the different plants, animals and micro-organisms, the genes they contain and the ecosystems they form).

The Parks and Visitor Services Output is essentially concerned with encouraging and facilitating people to experience, enjoy and therefore appreciate and value wildlife and the natural environment and secondly, providing the opportunity for people to be meaningfully engaged and involved in maintaining biodiversity through contributing to management.

The Sustainable Forest Management Output is concerned with the sustainable management of State forest and timber reserves for conservation, recreation, timber production and water catchment protection.

The functions and powers of CALM are provided in the CALM Act. This Act also deals with the management of lands and waters that come under the Act. This legislative and management

framework ensures that lands and waters vested in the Conservation Commission and the Marine Parks and Reserves Authority and managed by CALM are protected in perpetuity for the benefit of present and future generations, and managed sustainably.

4. PROTECTED AREAS – POLICY SETTING

4.1 International

The World Conservation Union (IUCN), of which CALM is a member, has a mission to:

influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The IUCN World Commission on Protected Areas (one of six Commissions established to implement the Union's work program) has the following mission:

To promote the establishment and effective management of a worldwide, representative network of terrestrial and marine protected areas as an integral contribution to the IUCN mission.

The IUCN defines a protected area as:

an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

The six IUCN categories of protected areas and their management objectives are:

1. Strict Nature Reserve/Wilderness Area: protected area managed mainly for science of wilderness protection;
11. National Park: protected area managed mainly for ecosystem protection and recreation;
111. Natural Monument: protected area managed mainly for conservation of specific natural features;
- 1V. Habitat/Species Management Area: protected area managed mainly for conservation through management intervention;
- V. Protected Landscape/Seascape: protected area managed mainly for landscape/seascape protection and recreation; and
- V1. Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems.

In 1992 the IUCN World Commission on Protected Areas identified that a minimum of 10% of each 'biome' should be preserved.

The Vth IUCN World Parks Congress held in Durban, South Africa in September 2003 agreed on new commitments and policy guidance for protected areas. An agreed recommendation (Recommendation 5.04) from the Congress under the topic 'Building Comprehensive and Effective Protected Area Systems' was to:

Urge governments, non-government organisations and local communities to maximise representation and persistence of biodiversity in comprehensive protected area networks in all ecoregions by 2012, focussing especially on those species that qualify as globally threatened with extinction under the IUCN criteria.

Additionally, under the theme 'Building a Global System of Marine and Coastal Protected Areas Networks', the Congress approved the following recommendation (Recommendation 5.22):

Establish by 2012 a global system of effectively managed, representative networks of marine and coastal protected areas, consistent with international law and scientific information,

4.2 National and State (Western Australian) Strategies

In Australia terrestrial protected areas that meet nationally agreed standards are included in the National Reserve System (NRS).

The NRS represents the collective efforts of the States, Territories, the Australian Government, non-government organisations and Indigenous landholders to achieve an Australian system of terrestrial protected areas as a major contribution to the conservation of the country's native biodiversity. It aims to contain samples of all regional ecosystems, their constituent biota and associated conservation values.

The NRS is based on the Australian Government and the States and Territories working in partnership towards a common goal to establish a comprehensive, adequate and representative (CAR) system of protected areas.

The establishment of a conservation reserve system that meet CAR criteria is a commitment in a range of national and State policies and programs. These include:

- *The National Strategy for the Conservation of Australia's Biological Diversity* (1996), signed by the Commonwealth and all States and Territories, included an objective to:

Establish and manage a comprehensive, adequate and representative system of protected areas covering Australia's biodiversity.

The National Strategy included an action to:

Undertake a 10 year Commonwealth, State and Territory cooperative program, which includes the provision of adequate resources, to ensure that the terrestrial and marine protected area systems are comprehensive, adequate and representative.

- *The Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia* (a report by the joint Australian and New Zealand Environment and Conservation Council/Ministerial Council on Forestry, Fisheries and Aquaculture National Forest Policy Statement Implementation Sub-committee) (1997) (known as the JANIS report) established criteria for the reserve system in forest areas including:

As a general criterion, 15% of the pre-1750 distribution of each forest ecosystem should be protected in the CAR reserve system with flexibility considerations applied according to regional circumstances, and recognising that as far as possible and practicable, the proportion of Dedicated Reserves should be maximized; and

Where forest ecosystems are recognized as vulnerable, then at least 60% of their remaining extent should be reserved.

The Western Australian Regional Forest Agreement (1999) was designed to result in the establishment of a reserve system in the south-west forests that met the JANIS criteria. The Western Australian State Government's *Protecting our old-growth forests* policy adds national parks and other reserves that exceed the JANIS criteria.

- The *Partnership Agreement between the Commonwealth of Australia and Western Australia* for the Natural Heritage Trust (1997) included a national goal:

To assist with the establishment and maintenance of a comprehensive, adequate and representative system of reserves.

It also included a national objective to:

establish and manage new ecologically significant protected areas for addition to Australia's terrestrial National Reserve System.

Additionally, in the context of establishing a CAR reserve system in Western Australia, the Partnership Agreement emphasized that *statewide strategic priorities for acquisition will be identified and pursued.*

- The *Gascoyne-Murchison Rangeland Strategy* (1997), endorsed by the Western Australian State Government, stated:

It is estimated that 10 to 15 per cent of the Gascoyne-Murchison area will need to be in the reserve system to meet the national criteria.

- The State of the Environment Report *Environment Western Australia 1998* included an objective:

To ensure that by the year 2010, all ecosystems within Western Australia are adequately and comprehensively represented in the conservation reserve system and appropriately managed to ensure their viability.

In the Government's response to the report, *Environmental Action* (1999), one of the actions was to *Establish a comprehensive, adequate and representative terrestrial conservation reserve system.* The response stated *This will result in development of a comprehensive, adequate and representative terrestrial conservation reserve system throughout Western Australia, subject to limitations resulting from prior land use decisions and taking account of social and economic considerations.*

- The Western Australian State Government policy *Managing the Rangelands* (1999) included a commitment to protect the environment by:

Identifying and establishing a comprehensive, adequate and representative conservation reserve system, representing the full range of landforms and biological communities.

- *Bush Forever* (2000), which dealt with regionally significant bushland and associated wetlands in the Western Australian Swan Coastal Plain portion of the Perth Metropolitan Region plus the Wilbinga-Caraban area, included the policy objective:

To establish a conservation system that is, as far as is achievable, comprehensive, adequate and representative of the ecological communities of the region.

It also stated:

Bush Forever is a 10 year strategic plan to protect some 51,200 hectares of regionally significant bushland in 287 Bush Forever Sites, representing, where achievable, a target of at least 10 per cent of each of the original 26 vegetation complexes of the Swan Coastal Plain portion of the Perth Metropolitan Region.

- The *National Objectives and Targets for Biodiversity Conservation 2001-2005* (June 2001), signed by the Commonwealth and five States and Territories including Western Australia, included as a target:

By 2005, a representative sample of each bioregion (as specified by the ANZECC action plan) is protected within the National Reserve System or network of Indigenous Protected Areas or as private land managed for conservation under a conservation covenant.

- *Hope for the Future: The Western Australian State Sustainability Strategy* – (September 2003) included as an objective:

To establish a comprehensive, adequate and representative marine and terrestrial conservation reserve system in Western Australia.

It lists the following actions:

Continue to identify and acquire land for addition to the terrestrial conservation reserve system so that it is comprehensive, adequate and representative.

Create five new marine reserves by 2005 to ensure Western Australia's unique coastal and marine environment is preserved in perpetuity.

- *Directions for the National Reserve System – A Partnership Approach* (Natural Resource Management Ministerial Council, (2004) includes a statement:

that experience in Australia to date has generally demonstrated that it is seven times more cost effective to conserve intact native ecosystems rather than attempting to re-establish them after they have been cleared or significantly degraded. The next decade will be a critical period for biodiversity conservation planning in Australia and presents significant opportunities for progressing a comprehensive, adequate and representative NRS.

This document, which represents the collective efforts of the States, Territories, the Australian Government and non-government organisations to achieve a system of protected areas as a major contribution to the conservation of biodiversity, sets out a series of directions and targets to be met by jurisdictions.

- The *Towards a Biodiversity Conservation Strategy for Western Australia Discussion Paper* (Government of Western Australia, December 2004) includes an objective:

To accelerate the establishment of a network of protected areas, both terrestrial and marine, that provides security of tenure in perpetuity for a comprehensive, adequate and representative sample of the full range of ecosystems at a sub-bioregional level.

It also includes as outcomes of this objective:

A comprehensive, adequate and representative system of terrestrial protected areas with at least 15 per cent of all ecosystems under legislative protection (to meet IUCN Management Categories 1 or 11 or 1V),

A system of marine conservation reserves where all ecosystems are represented and adequately covered under legislative protection to meet IUCN Management Categories, and

a target date of 2010 to establish a CAR conservation reserve system across 20 IBRA sub-regions and establish marine parks and reserves in the Western Australian South Coast and Kimberley Interim Marine and Coastal Regionalisation for Australia (IMCRA)

bioregions, particularly in the Recherche Archipelago, Fitzgerald River coast and Roebuck Bay/Eighty Mile Beach.

5. STATUS OF THE PROTECTED AREA SYSTEM IN WESTERN AUSTRALIA

5.1 Terrestrial Conservation Reserve System

At 30 June 2005, Western Australia had a terrestrial conservation reserve system comprising 96 national parks (covering 5,591,090 hectares), 745,195 hectares in conservation parks, 10,856,529 hectares in nature reserves and 133,106 hectares in miscellaneous conservation reserves under the CALM Act. The total area of 17,325,920 hectares equates to 6.8 per cent of Western Australia's land area. In addition, 4,963,747 hectares of former pastoral leasehold land and about 7,700 hectares of former freehold land have been acquired for conservation reserves as at 30 June 2005 but are yet to be reserved, and approximately 195,000 hectares of land tenure changes to establish new conservation reserves are yet to be implemented under the *Forest Management Plan 2004-2013*. Reservation of these areas will increase the total area of the conservation reserve system in Western Australia to around 22.5 million hectares, or 8.8 per cent of the State's land area. Furthermore, a total of more than 1.4 million hectares of land in the rangelands has been identified for exclusion from pastoral leases when the leases expire in 2015, and will be incorporated in the conservation reserve system.

The national framework against which progress towards a conservation reserve system is planned and measured is the Interim Biogeographic Regionalisation of Australia (IBRA). Under IBRA Western Australia has been divided into 26 bioregions (of which 8 are shared with the Northern Territory and South Australia) and 54 sub-regions or provinces. Of the 26 bioregions in WA, 8 are ranked nationally as very high or high priority, 11 as moderate priority and 7 as low priority for further reservation to meet major gaps at a national scale in the reserve system. However, even in regions ranked as 'low' at that scale, there are still additional areas warranting reservation to protect special values (e.g. threatened species and ecological communities), as well as areas of amenity or scenic value and community attachment.

The terrestrial conservation reserve system is still highly uneven or 'biased'. As at June 2005, there are 19 vegetation associations (using National Vegetation System Information System descriptions and boundaries) that have been extensively cleared to at least 90 percent of pre-European settlement occurrence, and are not represented in the terrestrial conservation reserve system (IUCN I-IV management categories). This includes seven associations with two percent or less remaining vegetation. About 39% of the State's vegetation associations are not protected in the conservation reserve system. Thirty-one percent of vegetation associations have greater than 15% of their occurrence represented in the conservation reserve system.

The table at Attachment 1 shows the proportion of vegetation associations, as an indicator of representativeness, protected in the conservation reserve system. The maps at Attachments 2A and 2B show the current level of reservation at bioregional province level (or sub-region level). The current statewide reservation level of 6.8% (or 8.8% if pastoral leasehold acquisitions and outstanding Forest Management Plan commitments are included) is significantly less than the 15% benchmark figure.

The above and attached information on the terrestrial conservation reserve system in Western Australia clearly demonstrates that there is still a long way to go to meet national and international criteria of comprehensiveness, adequacy and representativeness.

5.2 Marine Conservation Reserve System

At 30 June 2005 Western Australia's marine conservation reserve system comprised nine marine parks, two marine management areas and one marine nature reserve, covering a total area of around 1.54 million hectares, or 12.2% of the State's marine waters.

Marine parks are created to protect natural features and aesthetic values while at the same time enabling sustainable recreational and commercial use where these activities do not

compromise conservation values. There are four types of management zones applicable to marine parks: (i) recreation zones; (ii) general use zones; (iii) sanctuary zones; and (iv) special purpose zones. Sanctuary zones afford the highest level of protection for environmental values in marine parks, and allow passive recreational uses consistent with the protection of these values. Exploratory drilling, mining, commercial and recreational fishing, aquaculture and pearling are not permitted in sanctuary zones.

Marine management areas provide a formal integrated management framework over waters that have high conservation value and intensive multiple uses. These areas are selected primarily on the basis of their biological and recreational values.

Marine nature reserves are created for conservation and scientific research, although low-impact tourism may be permitted. No recreational or commercial fishing, aquaculture, pearling, petroleum drilling or production is allowed in these areas.

Since 2003, there have been some significant achievements in the establishment of the marine conservation reserve system in Western Australia with the creation of the Jurien Bay Marine Park, the Montebello Islands Marine Park, the Barrow Island Marine Park and the State's first marine management areas, the Muiron Islands Marine Management Area and the Barrow Island Marine Management Area. Two existing marine parks have also been significantly extended - the southern portion of the Ningaloo Reef was added to the Ningaloo Marine Park and all of the surrounding State waters were added to the Rowley Shoals Marine Park, significantly increasing the ecological integrity of both reserves.

Of the 18 IMCRA bioregions in Western Australia, 11 have no CALM Act marine reserves and four have less than three per cent of their area reserved. Planning for the establishment of new marine conservation reserves for the Dampier Archipelago-Cape Preston, Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet and Walpole-Nornalup Inlets, and extensions to the Shark Bay and Shoalwater Islands marine parks, is underway. There remain major gaps in the marine conservation reserve system, particularly in the Kimberley and South Coast IMCRA bioregions. Roebuck Bay and the Recherche Archipelago have been identified as high priorities for future consideration in those two bioregions respectively.

Currently, 2.5% of State marine waters are afforded the highest level of protection in marine nature reserves or sanctuary zones of marine parks.

Attachment 3 shows the location and extent of marine conservation reserves in Western Australia.

The above information demonstrates that both the terrestrial and marine conservation reserve systems in Western Australia are still well short of CAR targets. Considerable effort and investment are still required in Western Australia to achieve CAR targets. It is also noteworthy that in many instances terrestrial and marine reserves are contiguous and are managed in an integrated manner.

5.3 Off-reserve Conservation and Linkages with the Formal Conservation Reserve System

It is important that ecological processes and biodiversity are conserved across both the formal conservation reserve system and other lands and waters. Promotion of landscape scale conservation, which integrates both on and off-reserve conservation, is needed to address key threatening processes and to conserve, and where necessary recover, biodiversity at a range of scales.

Used in conjunction with regulatory controls, a variety of advisory, assistance and incentive programs make a valuable contribution to conserving biodiversity, meeting sustainability targets, and complementing the formal conservation reserve system.

CALM fully supports private protected areas and Indigenous Protected Areas but sees these as complementary to, rather than substituting for, the formal public system of conservation

reserves, as they are not necessarily subject to public accountability nor do they often have long-term security of tenure.

The Western Australian biodiversity conservation strategy (in preparation) will include strategies and mechanisms to promote and strengthen off-reserve conservation measures.

6. SENATE INQUIRY - TERMS OF REFERENCE

The reference for this Inquiry is:

The funding and resources available to meet the objectives of Australia's national parks, other conservation reserves and marine protected areas, with particular reference to:

- (a) the values and objectives of Australia's national parks, other conservation reserves and marine protected areas;
- (b) whether governments are providing sufficient resources to meet those objectives and their management requirements;
- (c) any threats to the objectives and management of our national parks, other conservation reserves and marine protected areas;
- (d) the responsibilities of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas, with particular reference to long-term plans; and
- (e) the record of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas.

Each of these is dealt with in turn in the following section.

7. CONSIDERATION OF THE TERMS OF REFERENCE

(A) the values and objectives of Australia's national parks, other conservation reserves and marine protected areas

Western Australia covers about a third of the Australian continent and has a coastline of approximately 13,500 kilometres. It contains 26 of Australia's 85 IBRA regions, and is further divided into 54 sub-regions (43 of which occur wholly within the State, and 11 are shared with other jurisdictions). Western Australia's marine waters are divided into 18 of Australia's 60 meso-scale marine bioregions.

The formal conservation reserve system plays a pivotal role in conserving Western Australia's biodiversity, which is both rich and exhibits a high degree of endemism (i.e. plants and animals occurring nowhere else). The south-west of Western Australia is recognised internationally as one of the world's 34 biodiversity hotspots. Furthermore, Western Australia contains eight of the 15 national biodiversity hotspots.

The NRS and the National Representative System of Marine Protected Areas (NRSMPA) are viewed as a major plank of biodiversity conservation. They also provide for a range of other benefits, including ecosystem services, education and scientific values, spiritual places, support for industries such as nature-based tourism, and contributing to the State and regional economies and employment.

The term 'value' has many meanings and applications. When considering the value of protected areas, it is useful to consider the different types of values in a framework. Protected area values can be categorised into environmental, social and economic values. Social values are concerned with providing community, group and individual benefits. Economic values support economic activity and relate to the generation of material wealth. Environmental or natural values are indicative of the inherent worth of natural areas. Each of these values can be

further divided into direct and indirect values. Use values can be either quantifiable or unquantifiable. Quantifiable values include economic values, recreational values and other benefits such as tourism, resource harvesting, education and research. Non-use values are experienced by those who do not visit or use a protected area but still enjoy its benefits, such as existence values.

Economic Benefits

Protected areas provide both direct and indirect economic benefits as they contribute towards Statewide and regional economies through sustainable nature-based tourism and recreation. Conservation reserves also play a key role in community wellbeing. The majority of Western Australia's tourism 'icons' are located in conservation reserves (e.g. Bungle Bungles, Karijini, Cape Range/Ningaloo, Monkey Mia, Pinnacles, Yanchep, Leeuwin-Naturaliste, south-west forests, Stirling Range, Tree Top Walk and south coast parks). Figgis (1999) suggests that Australia's \$72 billion tourism industry is largely based on its natural environment, key elements of which are within protected areas. Tourism based on protected areas is a large and growing component of the economy of many countries. For example, protected area tourism in the USA and Canada in 1996 had an estimated economic value of between \$236 billion and \$370 billion (Eagles *et al* 2002). Wildlife tourism in Australia, which is largely dependent on protected areas, was valued in 1996 at \$3.5 billion (Higginbottom *et al* 2001).

Protected areas are amongst the greatest attractions tourism has for international and domestic travellers. A study by Carlsen and Wood (2004) on the economic value of recreation and tourism in the southern forest and Gascoyne coast regions of Western Australia found that 80 percent of visitors rated the natural environment as the primary reason for their visit and over 90 per cent of activities were nature based. The study estimated that the annual expenditure value attracted to or retained in Western Australia due to the national parks and forests of the southern forest region was between \$61 and \$70 million and for the Gascoyne Coast Region it was between \$127 and \$138 million. This represents a significant boost to the local, regional, State and national economies. A copy of the Carlsen and Wood study is at Attachment 4.

In 2004/2005 there were almost 11 million visits to national parks and other conservation reserves in Western Australia by international, national and intrastate tourists indicating the popularity and significance of these areas to tourism (see Attachment 5).

In 2005 CALM collected \$8.75 million in revenue as a direct result of visits to managed lands and waters, as well as from leases and licences for use of protected areas. The growth in recreation and tourism revenue from the formal parks and reserves system is shown in Attachment 6. All such revenue is retained by CALM and invested in park and reserve management.

Social benefits

Protected areas not only conserve nature and biological diversity, they also conserve human history in structures and land practices. They play an important role in conserving non-indigenous and indigenous heritage. Protected areas can provide opportunities for indigenous people to maintain traditional ways of life. In an increasing number of protected areas, joint management arrangements play an important role in providing economic and social benefits for traditional owners. Many protected areas contain sites of cultural significance to the indigenous or traditional owners of the land. It is important that land managers respect this customary use and ensure access for traditional owners.

Health and wellbeing

Protected areas offer outstanding recreational opportunities for Western Australians and visitors. These opportunities contribute to both individual and community health and wellbeing. The total number of visits to lands and waters managed by CALM has increased 26% from 8.7 million in 1998/99 to 10.99 million in 2004/2005 (see Attachment 5). In comparison, the total population for Western Australia rose by about 10% over the same period. In the same period the area managed by CALM increased from 21.6 million hectares to 25.4 million hectares

(Attachment 7), an increase of about 17.6%. The increase in visitation can be attributed to a number of factors including growth in the interstate and overseas tourism markets, and a greater local awareness of the natural environment and opportunities to engage in adventure or eco-tourism activities.

There are over 400 licensed tour operators (a number which has grown 104% from 198 in 1996 to 404 in 2005 – see Attachment 8) providing commercial operations on CALM-managed lands and waters. *In addition, there are a range of leases providing commercial partnerships in visitor services.*

There are currently 7,600 registered volunteers who contributed 444,000 hours to CALM projects in 2004/2005, many of which are conducted on or support the management of CALM-managed lands and waters. These volunteers, whilst enjoying and assisting with the protection of CALM-managed lands, benefit both physical and emotionally from their engagement. The number of registered volunteers has risen by 216% since 1998 – see Attachment 9.

In November 2004 the Western Australian Government launched its Healthy Parks, Healthy People initiative, which is administered by CALM. The program aims to increase community awareness of, visitation to and support for parks, reserves and waterways by demonstrating the link between health and natural areas. It is anticipated that this initiative will create an even greater awareness and understanding in the community of the natural environment and the benefits it delivers.

Protected areas contribute to spiritual wellbeing. The establishment of a park or reserve is a result of human choice to protect the natural, cultural and landscape values of the area. This action alone recognises their value and importance to society. Many individuals and communities use protected areas as a place to find peace, solitude and spirituality.

Scientific Research

The parks and reserves system is significant to scientific research as it represents secure natural areas which are characteristic of many environments in Australia. They conserve species and habitats which provide a benchmark and reference sites for scientific investigation. Parks and reserves protect plants and animals which can provide a source of compounds for the development of new medicines, chemical applications etc.

Climate Change

Establishment of protected areas is also an important strategy in ameliorating the impacts of climate change on biodiversity. It provides the basis for continental and regional scale ecological linkages that allow connectivity for wildlife across landscapes, as well as areas large enough for evolutionary processes to occur.

(B) whether governments are providing sufficient resources to meet those objectives and their management requirements

The Department receives funds for the establishment and management of the conservation reserve system from a number of sources, with the principal source being through the State budgetary process.

Details of State (CALM) expenditure to manage the reserve system are shown at Attachment 10.

Expenditure on management of the State's parks and reserves has increased from \$40.5 million in 1995/1996 to \$105.1 million in 2004/2005, an increase of 159% (these figures represents half of the expenditure in CALM's Nature Conservation Output and all of the expenditure in its Parks and Visitor Services Output). Capital expenditure for the provision of visitor infrastructure and roading in the State's parks and reserves has also grown significantly from \$2.5 million in 1995/1996 to \$12.13 million in 2004/2005, an increase of 385% (see Attachment 11).

Over the last five years there has been significant expansion of the State's system of national parks and other conservation reserves in the south-west forests, and of the system of marine parks and other marine protected areas. CALM has been provided with additional ongoing funding for management of these areas.

The conservation reserve system in Western Australia remains well short of meeting CAR criteria, and the State Government therefore maintains an active program of reserve establishment, including purchase of suitable freehold and leasehold lands.

In addressing this term of reference it is important to also consider the contribution made by the Commonwealth Government under the NRS Program to the establishment of the conservation reserve system.

National Reserve System Program and Conservation Land Acquisition

Since 1996 the Commonwealth Government through the NRS Program of the Natural Heritage Trust (NHT) has provided financial support to the Australian, State and Territory Governments to purchase lands of high conservation value to add to the formal terrestrial conservation reserve system. Lands that are reserved under relevant legislation as part of the formal conservation reserve system are afforded the highest levels of long-term (statutory) security and their management is subject to public accountability. The terrestrial and marine protected area system is considered a major strategic component of conserving biodiversity *in situ* and meeting sustainability objectives.

The NRS Program has achieved positive outcomes for biodiversity conservation. Acquisitions under the NRS Program represent many of the most tangible and lasting outcomes from the NHT.

Under the 1997 NHT Partnership Agreement between the Commonwealth and the State, CALM was designated as the lead agency for the delivery of the NRS Program in Western Australia.

The NRS Program also provides funding assistance to local governments and non-government organisations to purchase or covenant land for the protection of their conservation values. Private lands managed for conservation (eg. under covenants) and Commonwealth Indigenous Protected Areas are not considered part of the NRS as they do not meet the minimum standards for inclusion in the NRS, although they do contribute to biodiversity conservation.

The level of financial investment by the NRS Program to the State (CALM) for the establishment of a CAR reserve system in Western Australia was initially negotiated under the 1997 NHT Partnership Agreement on a \$2 for \$1 basis. As the result of a unilateral Commonwealth decision, this fell in 2002/2003 to a \$1 for \$1 basis. Applications by non-Government agencies are understood to have continued to attract the higher level of funding support. The two-thirds Commonwealth, one-third State funds formula was negotiated in the first phase of the NHT based on recognition of the fact that the State contribution is ongoing, beyond purchase, in terms of funding for management of the purchased lands.

In the ten years between 1996/1997 and 2005/2006 (to date), over \$36 million (including negotiated but not settled purchases) has been invested by the State (CALM) and Commonwealth Governments (NRS Program) in the purchase of lands of high conservation value to add to the NRS. The State (CALM) contribution of over \$24.1 million is almost double the Commonwealth investment (NRS Program) of about \$12.3 million. Additionally, and despite the commitment in the Partnership Agreement and comments in the 1999 *Mid-Term Review of the Natural Heritage Trust National Reserve System Program* and the 1999 *National Reserve System Program Strategic Plan* for a contribution towards initial management and threat abatement actions on the purchased lands, only three of the 77 approved projects received funds for threat abatement.

The table below and graph at Attachment 12 provide a comparison of the level of investment in conservation land purchase by the State Government through CALM and the Commonwealth Government through the NRS Program and in earlier years. These figures demonstrate the dramatic decline in Commonwealth Government financial support for the establishment of the conservation reserve system in recent years.

In addition to CALM's contribution, the Western Australian Planning Commission through the Metropolitan Region Improvement Fund (MRIF) has expended in excess of \$173 million on the purchase of lands within the Perth metropolitan area for conservation from July 1994 to February 2006. This includes expenditure of \$23 million on acquiring *Bush Forever* sites and this level of MRIF expenditure is expected to be ongoing.

EXPENDITURE ON CONSERVATION LAND ACQUISITION IN WESTERN AUSTRALIA

Year ended 30 June	State (CALM) \$*	Commonwealth (NRS Program**) \$
1994	243,700	nil
1995	210,160	nil
1996	609,100	nil
1997	nil	nil
1998	342,650	115,800
1999	1,221,000	2,300,000
2000	10,680,000	1,020,000
2001	3,610,000	5,090,000
2002	1,670,000	1,480,000
2003	1,300,000	1,650,000
2004	763,000	333,500
2005	248,000	224,000
2006***	4,285,250	50,000
Total	\$25,182,860	\$12,263,300

Notes:

* State expenditure is for CALM only. It does not include in excess of \$173 million spent on the purchase of land in the Perth metropolitan area for conservation through the Metropolitan Region Improvement Fund between July 1994 and February 2006.

** The NRS Program was established in the 1996/97 financial year.

*** Includes commitments to 31 January 2006 (signed agreements but not settled) totalling \$365,500.

Research funding

NRS Program funding for research, including biological survey, which underpins the identification of areas targeted for acquisition for addition to the conservation reserve system has declined or ceased altogether. It seems that little or no allocation has been made for this critical work in the distribution of funds for the NRS component under Bushcare. The State (through CALM) has expended around \$18 million on regional-scale biological survey work in the Pilbara and Wheatbelt regions over the past eight years. The State is continuing its program of biological surveys.

It is recommended that a level of funding be reinstated under the NRS Program for identification and assessment projects that contribute to the scientific basis underpinning the conservation reserve system, while maintaining the emphasis on funding for land acquisitions.

Method of funding

The NRS Program since its inception has assessed projects on a case-by-case basis, i.e. each individual acquisition is assessed for funding support based on meeting relevant criteria (e.g. located in a high priority IBRA region etc). This approach hinders jurisdictions from acting on opportunities that are presented in the marketplace. CALM seeks support for a more strategic approach to the NRS Program where jurisdictions can apply for funds on a broadscale basis for

conservation land acquisition based on the level of their own investment. This would ensure opportunities in the marketplace are not lost.

NRS Program as a stand-alone program

During the first phase of the NHT, the NRS Program was a stand-alone program of the NHT. The second phase of the NHT saw the status of the program reduced to a component part of the Bushcare Program. Given the importance of the development of the NRS and the need to promote community awareness and political priority, the NRS Program needs to be reinstated and funded as a principal program of the NHT.

The State, at both head of agency and Minister levels, has expressed its disappointment and concern at the decline in the level of funding and the fact that funding is now being used to discriminate in favour of the non-government system over the formal public system of national parks and other conservation reserves.

The decline in funding will significantly impede progress towards a formal conservation reserve system in Western Australia that meets CAR criteria, particularly at a time of continuing strong investment by the State.

This apparent change in direction is detrimental to the overall effectiveness and credibility of the NRS Program, particularly at a time when the Natural Resource Management Ministerial Council has released its *Directions for the National Reserve System – A Partnership Approach* (2004). The Directions Statement is aimed at guiding the delivery of the terrestrial NRS, including both its establishment and management. The 38 directions are aimed at helping accelerate the establishment and improve management of the overall protected area network. Commonwealth Government participation through continued and adequate funding for the formal conservation reserve system (as well as funding for private protected areas and Indigenous Protected Areas) will be imperative if the States and Territories are to achieve objectives and targets for the NRS.

(C) any threats to the objectives and management of our national parks, other conservation reserves and marine protected areas

Terrestrial Conservation Reserves

The formal conservation reserve system in Western Australia is still well short of targets to meet CAR criteria (comprehensiveness, adequacy and representativeness - see maps at Attachment 2) and much still needs to be done if these targets are to be met. However, there is a declining opportunity to acquire or secure certain ecosystems for the terrestrial conservation reserve system due to competing land uses and loss of values through development.

Development processes are often accompanied by secondary threats which further diminish biodiversity values such as:

- salinisation of land and water;
- predation and competition by introduced animals;
- competition from introduced plants;
- disease from pathogens; and
- changes in management regimes such as those for fire and grazing.

In Western Australia, approximately two percent of described taxa are listed as threatened at the State level. Eleven mammals, two birds, one native bee, four snails and 15 plants are presumed to have become extinct in Western Australia since European settlement. In addition, 66 ecological communities have been identified as threatened, and three presumed destroyed. However, the real number of species and ecological communities that may have become extinct or destroyed could be much higher as many disappearances could have gone unrecorded.

Western Australia is on the verge of substantial species extinction if conservation action is not accelerated. Acceleration in the acquisition of land for the formal conservation reserve system is required to maintain momentum, meet targets and ensure opportunities are not lost.

In Western Australia, through CALM, the effective management of the existing formal terrestrial and marine conservation reserve system comprises two components:

1. Planning for management – under the CALM Act, CALM prepares management plans for parks and reserves on behalf of the Conservation Commission and the Marine Parks and Reserves Authority. Management plans are prepared in consultation with the community, and they identify and guide long-term management directions and strategies.
2. Implementation – the implementation of management actions is undertaken by CALM in accordance with management plans. For parks and reserves that do not have a prescribed management plan, management is undertaken based on the tenure of the land (e.g. national park, nature reserve conservation park), and the management issues relevant to that particular area.

The area of conservation reserve covered by statutory management plans to 30 June 2005 is shown in the table below.

AREA COVERED BY MANAGEMENT PLANS

Land category	Area covered by management plan (ha)	Total area (ha)	% covered
National park	1,751,553	5,591,090	31.3
Nature reserve	361,956	10,856,529	3.3
Marine reserve	1,489,461	1,536,418	96.9
Other recreation/conservation reserves	94,110	892,271	10.5
TOTAL	3,473,080	18,876,308	18.4

Note:

Figures exclude (a) some regional park management plan areas and (b) the area covered by the *Forest Management Plan 2004-2013* except those reserves with specific area management plans.

Key aspects of CALM's terrestrial reserve management include:

- Pest animal control – pest animals are a major threat to biodiversity values, natural landscapes and neighbouring pastoral and agricultural interests. Activities to control pest animals include baiting approximately 3.5 million hectares (predominantly in the south-west) to control introduced predators (principally foxes but also cats) and recover native fauna; research and operational trials to control feral cats; control of goats and other feral herbivores in the rangelands; developing and implementing a program to deal with cane toads in the Kimberley; addressing the feral pig problem in the south-west; and dealing with wild dogs.

Increased funding is required for the more effective control of pest animals on CALM-managed lands.

- Weed control – weeds are also a major threat to biodiversity and landscape values, and to neighbouring primary producers. In 1999 CALM developed the 'Environmental Weed Strategy for WA' which now guides its weed management activities. The strategy identified 1,350 weeds considered to be of environmental concern. CALM is also party

to the State Weed Plan which promotes an integrated approach across weeds of environmental and agricultural significance.

Increased funding is required for the more effective control of weeds on CALM-managed lands.

- Dieback – Dieback disease caused by the root-rot fungus *Phytophthora cinnamomi* is one of the most significant threats to biodiversity in the south-west of Western Australia, and has been listed as a key threatening process under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*. Activities conducted by CALM for dieback management include the detection and mapping of infested areas, assessment of the threat to biodiversity, analysis of the risk of spread, protective quarantine management of uninfested areas, and application of phosphite to protect susceptible threatened flora and ecological communities.
- Fire management – fire management activities include both the suppression of wildfire and arson fires that threaten community and biodiversity values and the active use of fire as a means of maintaining and recovering biodiversity by ensuring that the diversity of burning regimes necessary for plant germination, reproduction and habitat maintenance is delivered.

The Western Australian State Government has allocated significant additional funding to CALM in recent years for fire management in the south-west and also in the more remote parts of the State. This funding is allowing for improved fire preparedness and on-ground fire management to occur as well as the progressive implementation of planned fire regimes through prescribed burning in remote areas. Additional fire ecology research capacity has also been funded.

The large size of the protected area system in the north and interior of Western Australia, coupled with a knowledge gap in regard to the relationship between fire and biodiversity in those areas, will mean that the adequacy of resourcing for fire management will remain a key issue in Western Australia. As the level of knowledge increases and as the development of more sophisticated and reliable techniques for the application of planned fires is improved, the requirement for increased resources will also grow.

Marine Conservation Reserves

With respect to the protection of marine biodiversity, these areas are coming under increasing stress from:

- human pressures, including coastal population growth and development;
- exploitation of marine resources;
- loss of habitat; and
- land based sources of pollution.

The IUCN World Commission on Protected Areas Strategic Plan 2005-2012 (Draft of 22 December 2005) indicates that on a world scale, about half of the world's fisheries are fully exploited and a fifth are over fished; about 90% of large predatory fish biomass has been lost since pre-industrial times; and about 35% of mangrove forests have been lost over the past two decades. It also notes that the world's population is becoming increasingly dependent on these threatened resources for food, tourism, shoreline protection, and numerous other ecological services.

With these increasing pressures, marine protected areas are increasingly being recognised as a management tool to protect, maintain and restore natural and cultural resources in coastal and marine waters.

(D) the responsibilities of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas, with particular reference to long-term plans

The Western Australian State Government has constitutional responsibility for its land area and State waters. The State has a responsibility to contribute towards the national and global systems of protected areas by aiming to meet CAR targets for Western Australia. At present only 6.8% of Western Australia's land area is in formal conservation reserves and 12.2% of the State's marine waters are in marine conservation reserves. In comparison, 13% of the world's land area is in protected areas and only 1% of the ocean is protected. The World Summit on Sustainable Development, the World Parks Congress and the Convention on Biological Diversity have all committed to a goal of establishing a global network of protected areas by 2012.

The responsibilities of government to provide adequate funding and resources for the long-term protection and management of the formal conservation reserve system are fundamental to the integrity of the conservation reserve system. Protected areas deserve significant and ongoing financial support owing to the benefits they provide for biodiversity conservation and related economic, cultural and social benefits.

(E) the record of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas.

In the last ten years the area managed by CALM has increased over 25% from 20.2 million hectares in 1995/1996 to 25.4 million hectares in 2004/2005. In the same period funds for managing the parks and reserves system have grown 159% from \$40.5 million in 1995/1996 to \$105.1 million in 2005. Capital expenditure for the provision of visitor infrastructure and roading in the State's parks and reserves has increased by 385% in this period, from \$2.5 million in 1995/1996 to \$12.13 million in 2004/2005. Additionally, in the last ten years the State has spent \$24.1 million on the acquisition of suitable lands to add to the conservation reserve system (excluding expenditure under the Metropolitan Region Improvement Fund). In comparison the Commonwealth Government through the NRS Program has contributed \$12.3 million, about half the State's contribution, to conservation land purchase in Western Australia over the same period.

This continued strong investment by the State clearly demonstrates the commitment to the establishment and management of a CAR conservation reserve system.

The investment by the State in the conservation reserve system has resulted in increased nature-based tourism opportunities with visitors to CALM-managed lands and waters being in the order of 11 million in 2004/2005. Revenue generated from park entry fees, leases and licences for the use of CALM-managed lands and waters rose to \$8.75 million in 2004/2005.

As detailed in this submission and shown in the graph at Attachment 7, there has been a steady growth in the area reserved in Western Australia. However there is still a long way to go to reach the generally accepted benchmark figure of 15% for the terrestrial reserve system. There has been a corresponding growth in the funding allocated for the management of reserves in Western Australia.

The creation of a CAR reserve system must be accompanied by investment in effective management. This includes maintaining and often restoring ecosystems within protected areas along with the associated monitoring and evaluation. There has been a healthy increase in the funding allocated to the management of parks and reserves in Western Australia (see Attachments 10 and 11), however there is a need to continue to improve investment across biodiversity conservation and visitor facilities and services, particularly in the areas of fire and feral animal control. It is particularly important in the light of global changes, such as climate change, to also invest in the science base to gain a better understanding of changes and effective management actions.

Action also needs to be taken to improve public and political awareness and understanding of the values and benefits of protected areas.

8. CONCLUSION

The opportunity to provide input into this inquiry has been welcomed. It is hoped that the outcome of the inquiry will demonstrate the vital importance that the formal parks and reserves system has for the long-term protection of biodiversity values and for a range of other benefits including ecosystem services, education and scientific values, spiritual places, supporting industries such as nature-based tourism, and contributing to State and regional economies and employment.

Key points of this submission are:

- the formal parks and reserves system has global recognition and is supported by a range of international, national and State policies and strategies;
- the formal parks and reserves system is a vital and irreplaceable global and national asset and is essential to future sustainable development;
- the terrestrial and marine reserves which make up the formal conservation reserve system are afforded the highest levels of long-term (statutory) security and their management is subject to public accountability;
- private protected areas and Indigenous Protected Areas are important for biodiversity conservation, but these are considered complementary to, rather than substituting for, the formal public system of conservation reserves, as they are not subject to public accountability, nor do they often have long-term security of tenure;
- the formal conservation reserve system in Western Australia, which covers almost a third of the Australian continent, is still well short of targets to meet the criteria of comprehensiveness, adequacy and representativeness;
- the development of the IBRA/IMCRA framework has provided a standardised and welcome approach for the identification of priority bioregions for reserve establishment;
- only 6.8% of Western Australia's land area is in protected areas, compared with a world figure of 13%;
- despite a decrease in funding support from the Commonwealth Government for establishment of the reserve system in Western Australia, the State has continued to allocate significant funding for conservation land acquisition, management and infrastructure for its parks and reserves;
- the State (CALM) has invested \$24.1 million in the purchase of lands for the national reserve system in Western Australia between 1996/97 and 2005/2006 compared to the Commonwealth Government's contribution of \$12.3 million;
- investment in recurrent funding for management of the State's parks and reserves has increased 159% between 1995/1996 and 2004/2005;
- investment in visitor infrastructure and roading in the State's parks and reserves has grown 385% between 1995/1996 and 2004/2005;
- the formal parks and reserves system is the basis of a huge and growing tourism industry which is creating employment opportunities and is attracting millions of dollars each year to the State economy (e.g. the total annual expenditure value attracted to or retained in Western Australia due to the national parks and forests of the southern forest region and the Gascoyne Coast Region is estimated to be between \$188 million and \$208 million);

- in 2004/2005 CALM raised \$8.75 million in revenue from park entry fees, leases and licences (all such revenue is invested into park management);
- the Commonwealth Government appears to have moved away from promotion of the NRS Program in favour of promoting and financing natural resource management projects which are more heavily focussed on primary production lands, and similarly in favour of private conservation reserves as opposed to investing in the public conservation reserve system that has longer term security and public ownership;
- the Commonwealth Government's NRS Program needs to be reinstated and funded as a principal program of the Natural Heritage Trust, as opposed to its current status as a sub-set of the Bushcare Program or seen as largely concentrating on private protected areas and Indigenous Protected Areas;
- a level of funding needs to be reinstated under the NRS Program for identification and assessment projects that contribute to the scientific underpinning of the NRS;
- funding levels need to be reinstated at two-thirds Commonwealth, one-third State/Territory for conservation land acquisition in recognition of the States and Territories committing to the ongoing management costs associated with the land; and
- the development of the National Reserve System and the National Representative System of Marine Protected Areas needs to be raised in terms of community awareness and political priority.

*Department of Conservation and Land Management
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