

Annual Report 2002-2003



Our Vision

A natural environment in Western Australia that retains its biodiversity and enriches people's lives.

Our Mission

In partnership with the community, we conserve Western Australia's biodiversity, and manage the lands and waters entrusted to us, for their intrinsic values and for the appreciation and benefit of present and future generations.

Our Values

In working to achieve our Mission, we endeavour to behave with:

- **Honesty and integrity** – acting ethically, legally and treating people with impartiality.
- **Respect** – understanding and respecting individual differences, valuing each other's contribution, and respecting the views and aspirations of co-workers and the community.
- **Openness** – having processes that are transparent and understandable.
- **Commitment** – being responsible, accountable and dedicated in our work.

We will demonstrate:

- **Teamwork** – working collaboratively and cooperatively with co-workers, and in partnership with the community.
- **Leadership** – being progressive, showing initiative and creativity in meeting our objectives.
- **Professionalism** – acting in a professional, courteous and fair manner, and using up-to-date and sound scientific principles and accurate information in our work.
- **Value** – delivering the best possible result for conservation through continual improvement of our efforts.

Our Principles

In making decisions we will be guided by the following principles:

- *The diversity and health of ecological communities and native species throughout WA will be maintained and restored.*
- *Where there are threats of serious or irreversible damage, the lack of full scientific certainty shall not be used as a reason for postponing measures which seek to prevent loss of biodiversity.*
- *Users of the environment and resources will pay fair value for that use.*
- *Use of wildlife will be on the basis of ecological sustainability.*
- *Outcomes will be delivered in the most effective and efficient way.*
- *Cooperation, sharing and integration of resources and knowledge within the Department and between communities and agencies will be promoted.*
- *We will adopt a flexible and responsive approach to management and operations and be receptive to change.*

Our Objectives

Conserving Biodiversity – *To protect, conserve and, where necessary and possible, restore Western Australia's natural biodiversity.*

Creating sustainable community benefits – *To generate social, cultural and economic benefits through the provision of a range of services that are valued by the community and are consistent with the principles of ecological sustainability.*

Maintaining community involvement and support – *To develop community awareness and appreciation of the State's rich diversity of native plants, animals and natural ecosystems, and its unique landscapes, and promote community involvement in and support for their protection, conservation and restoration.*

Improving the way we do business – *To foster a positive work culture of trust, continuous improvement and anticipation of biodiversity conservation issues and customer needs, and deliver core business activities in the most effective and efficient manner.*

Our Responsibilities

The Department of Conservation and Land Management is part of a greater conservation community and has distinct State Government responsibilities for implementing Government policy within that community. Conservation is a collective role.

We have the lead responsibility for conserving the State's rich diversity of native plants, animals and natural ecosystems, and many of its unique landscapes. On behalf of the people of Western Australia, we manage more than 24 million hectares, including more than 9 per cent of WA's land area: its national parks, marine parks, conservation parks, regional parks, State forests and timber reserves, nature reserves, and marine nature reserves.

As an agency with integrated responsibilities, we manage lands and waters for the conservation of biodiversity at ecosystem, species and genetic levels, including management for the renewable resources they provide, and for the recreation and visitor services they can sustainably support.

We assist the Conservation and Land Management Act statutory bodies (Conservation Commission of Western Australia, Marine Parks and Reserves Authority, and Marine Parks and Reserves Scientific Advisory Committee) to carry out their statutory functions.

We work closely with the Forest Products Commission to ensure that all activities in State forests and timber reserves are consistent with the protection of nature conservation, community, recreation, cultural, catchment and physical values.

We also contribute to national and international programs through national Ministerial Councils, the Natural Heritage Trust, the work of organisations such as the IUCN (the World Conservation Union), and to the implementation of international conservation treaties in WA.

**HON MINISTER FOR
THE ENVIRONMENT**

**In accordance with Section 62 of
the Financial Administration and
Audit Act 1985, I submit for your
information and presentation to
Parliament the annual report of
the Department of Conservation
and Land Management.**



**Keiran McNamara
EXECUTIVE DIRECTOR
29 August 2003**

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THE OPINIONS OF THE AUDITOR GENERAL APPEAR AFTER THE
PERFORMANCE INDICATORS AND THE FINANCIAL STATEMENTS.



*The Department is committed to
developing a range of services that
meet the needs of our many customers,
and at the same time are consistent
with our responsibilities for conservation
and land management in WA.*

Executive Director's Review

Conserving Western Australia's biodiversity, the ecosystems and the ancient and diverse landforms – collectively the 'nature of WA' – for their intrinsic value and the benefit and enjoyment of present and future generations is the Department of Conservation and Land Management's mission.

As part of the strategies to accomplish this mission, the Department is seeking to integrate the cultural heritage of Indigenous Western Australians with conservation management practices that are based on sound science and modern day experience. It is a strategy that is based on the principles of respect and involvement.

The integration of traditional land management practices with today's conservation needs is particularly applicable to managing many sensitive areas, especially in the arid zone such as the Goldfields and Pilbara and in the tropical Kimberley region.

This integrated approach takes several forms. One is involving Traditional Owners in conservation management through avenues such as park councils. However, the Department recognises that process also must translate into providing training and employment opportunities for Aboriginal people, particularly young people who are the future traditional custodians of the land and waters. Consequently, a special highlight for the Department during this year was the formal announcement of a 10-year program designed to achieve a 10 per cent to 15 per cent Indigenous representation of its full-time workforce.

Under the program, up to 175 positions in the Department will be filled by Aboriginal people with 25 of those positions filled within the next five years. Already, the Department has four Aboriginal trainees based at Kalgoorlie, two at Denham in the World Heritage-listed Shark Bay area, two at Yanchep National Park, two in the Department's Aboriginal Heritage Unit at Kensington, one in Esperance and one in the Perth Hills District between Mundaring and Dwellingup.

Other Aboriginal cadets have been appointed to the Department's People Services Branch, Financial Services Branch, Science Division and Marine Conservation Branch. An Indigenous liaison officer has been appointed to our regional headquarters in Manjimup and during the fire season a crew of six Aboriginal people was engaged in the Blackwood District. CALM is a Registered Training Organisation which enables it to provide trainees with on-the-job experience under the guidance of certified trainers and graduate after four years with a Certificate IV in Conservation and Land Management, a recognised Technical and Further Education qualification.

The program – Mentored Aboriginal Training and Employment Scheme (MATES) – represents a new dimension in caring for the nature of WA and is one which the Department looks forward to further developing in the years to come.

The year in review has presented many challenges in terms of implementing the Government's *Protecting our old-growth forests* policy and in working

with the Conservation Commission and Forest Products Commission to prepare a new 10-year Forest Management Plan that will take effect from January 2004.

A key feature of these activities has been the extensive community consultation and public participation that has taken place. The Department fully recognises that community involvement is critical to the successful management of WA's biodiversity. The Department also acknowledges that there always will be a range of views on conservation management issues. This is part of the open, two-way communications process that is fundamental to ensuring we have a balanced approach to conservation.

I'd like to acknowledge the contribution of the Department's staff and volunteers for their unstinting efforts during the year. I also want to place on record my appreciation for the remarkable efforts of our firefighters during a long, strenuous and dangerous fire season. The Department also gratefully appreciates the contributions of the members and staff of the Conservation Commission of WA, the Marine Parks and Reserves Authority and the Marine Parks and Reserves Scientific Committee and the many community-based and other organisations who work with the Department on a day-to-day basis throughout the year.



Keiran McNamara
EXECUTIVE DIRECTOR

29 August 2003

Highlights of the Year

Progress towards new parks

A key priority of the Department during the year was the continued progress towards the creation of new national parks under the State Government's *Protecting our old growth forests* policy.

As at the end of June, indicative boundaries for 16 of the 30 proposed new parks were released, with remaining park boundaries scheduled for release over the coming months. Under the *Protecting our old-growth forests* policy about 350,000 hectares across the State's forest regions will be added to the conservation reserve system.

A key part of this process was public consultation and input. During 2002-2003, formal public consultation was sought to finalise the boundaries of 16 proposed new national parks including Butler, Hilliger, Milyeannup, Blackwood River, Boyndaminup, Greater Preston, Greater Beedelup, Greater Kingston, Boorara-Gardner, Jane, Greater Dordagup and Wellington.

Community participation for the proposed Walpole Wilderness Area was also taken a step further with the release of an issues paper as part of the management planning process. The creation of the Walpole Wilderness Area will comprise four proposed new national parks and three existing national parks.

New Biodiversity Conservation Act

During the year, the Government announced an overhaul of the State's archaic wildlife conservation laws into new biodiversity conservation legislation for the 21st century. The new Act will ensure Western Australia has the legislative backing to achieve its vision for conserving the State's

world-renowned diversity of native plants, animals and ecological communities.

The new law will include a significant increase in maximum fines for unlawfully taking threatened species – currently limited to \$10,000, compared with up to \$500,000 for an individual under Commonwealth legislation - as well as a broad range of new measures to protect all of the State's biodiversity.

Work commenced on the preparation of the new Biodiversity Conservation Bill with the release of a consultation paper seeking public submissions. A total of 157 submissions was received reflecting overwhelming support for the new Act.

In addition, it is intended that the powers of the Environment Minister will be strengthened with the ability to issue conservation orders to protect the recovery of a threatened species or critical habitat.

Western Shield Review

A comprehensive review of the Department's wildlife recovery program *Western Shield* commenced in early 2003. More than 100 people, including representatives from interstate and Federal Government agencies, gathered in Perth to hear presentations from Department staff involved in this major conservation program.

Presentations covered a range of project issues including translocation and fauna reconstruction sites, captive breeding, feral cat control, community support and education, monitoring, staff training and financial analysis.

The Department appointed an expert panel to independently review the information presented at the forum. The panel also visited Dryandra

Woodland to view the extensive wild populations of woylies, tammars and possums found there, a result of intensive fox baiting. It also is the site for one of the Department's captive breeding programs and the visitor facility, Barna Mia, where visitors can see several species of native animals listed as endangered. Two of the panel members also visited Peron Peninsula in the World Heritage-listed Shark Bay area where the Department is introducing several species that were once widespread but are now locally extinct.

Western Shield is part of the Department's wider aim to re-establish whole ecosystems. The Department conducted a number of translocations during the year including black-flanked rock-wallabies, tammar wallabies, woylies and quenda to Avon Valley National Park; black-flanked rock-wallabies and tammar wallabies to Walyunga National Park; numbats to Stirling Range National Park; bilbies to Dryandra Forest and Francois Peron National Park; noisy scrub-birds to jarrah forest near Harvey and western swamp tortoises to a reserve near Mogumber and to Ellen Brook Nature Reserve.

A wildlife conservation highlight during the year was the discovery of a new colony of Gilbert's potoroos, Australia's rarest marsupial, on the slopes of Mt Gardner in Two Peoples Bay Nature Reserve, east of Albany.

New nature-based tourism attractions

A new Karri Forest Explorer self-guided drive in the forests around Pemberton opened during the year. The 86 km-drive aims to contribute to the development and management of a vibrant and sustainable recreation and tourism industry. The \$1.6 million project was funded through the Government's *Protecting our old-*

growth forests policy as well as under the Regional Forest Agreement process. A key feature of the Karri Forest Explorer is community consultation and participation, an important part in blending the wonderful scenic attractions of the Pemberton forests with the burgeoning number of tourism operations in the area.

A guide to the southern native forests also was released as part of the Government's strategy to bolster tourism in the region. The guide, produced by the Department, is a 12-page tabloid-size paper that focuses on the karri and jarrah forests. The publication presents an overview of the forests and is aimed at visitors and local residents alike. It covers the region from Nannup and Bridgetown, south to the coast and east to Denmark.

A plan for a new tree-top experience in the southwest karri forest near Manjimup was unveiled for public comment in January. The Diamond Tree Lift project is a private sector project, developed by a consortium of business people who want to build on the appeal of the well-known Diamond Tree fire lookout. The Department, which manages the fire lookout built in the 1940s, is guiding a steering committee for the project. The proposed developments are sited about 50 metres from the Diamond Tree in the Diamond State Forest, near the boundary of Sir James Mitchell National Park.

New visitor facilities were opened at Karijini and Cape Range national parks - popular tourism sites in the Pilbara. This capital works program reflected the Department's strategy of enhancing nature-based tourism facilities across the State, while also working towards environmentally sound access to WA's national parks.

Key completed projects included the provision of new facilities for the Turquoise Bay day-use area in Cape Range National Park including additional parking; self-composting toilets and on-site information; new day-use facilities at Dales Gorge and Kalamina recreation sites in Karijini National Park; and the first stage of Savannah Campground in Karijini National Park - a project being developed in partnership with local Aboriginal leaseholders, Gumala Enterprises. Dales Gorge and Kalamina recreational sites also gained new coach and car parking, picnic facilities and on-site information.

New additions to conservation estate

More than 521,690 hectares of land of high conservation value were acquired during the year for addition to the conservation estate. Priorities for purchase are those areas containing ecosystems that are not adequately reserved in the existing conservation reserve system, and additions to existing reserves that would greatly improve their diversity or facilitate their management.

Funds for conservation land acquisitions were obtained from four sources: the Department's annual capital allocation; an allocation under the Gascoyne-Murchison Strategy; the National Reserve System component of the Natural Heritage Trust; and some funding from the Crown reserves component of the State Salinity Strategy. The total expenditure from all funding sources for the financial year was more than \$2.95 million.

With funds allocated under the Gascoyne-Murchison Strategy, the Giralia Pastoral Lease at the southern end of Exmouth Gulf and part of Wanna Pastoral Lease northwest of Mt Augustus National Park were purchased covering a combined total area of 519,700 hectares.

Acquisitions outside the Gascoyne-Murchison Strategy area included the following: two parcels of remnant vegetation in the Shire of Gingin supporting declared rare and priority flora totalling more than 525 hectares; 193 hectares of remnant vegetation situated in the upper reaches of Donkey Creek north-east of Eneabba; 24 hectares east of Busselton supporting the Southern Ironstone Threatened Ecological Community; 408 hectares of remnant vegetation and a freshwater wetland east of Geraldton; approximately 40 hectares adjoining the Lesueur National Park; 726 hectares in the Lake Bryde Recovery Catchment north-east of Pingrup in the south-eastern Wheatbelt; and an 81-hectare enclave within the Lane Poole Reserve supporting most of Lake Yourdamung.

In addition to the above acquisitions, a 122-hectare parcel of land within the Shire of Chapman Valley was generously bequeathed to the Department by the late Jean McGauran. The land will be set aside as a reserve for the purpose of 'Conservation and Seed Orchard'.

Biodiversity

Work was completed during the year on a national assessment of terrestrial biodiversity - the first time such an assessment was undertaken encompassing all of Australia. The assessment covers wetlands, threatened species and communities, land use impacts, information gaps, the reserve system and the capacity to integrate biodiversity conservation into broader natural resource management challenges. A summary was published under the National Land and Water Resources Audit and it is intended to publish in full the detailed Western Australian synopses and case studies prepared by nature conservation experts from within the Department.

A \$12.5 million biological survey of the Pilbara commenced in February 2003. The survey area covers 180,000 square kilometres and is being undertaken by the Department with assistance from the Western Australian Museum. The five-year survey comprises the establishment of 800 sites studying the plants, animals (including insects), soils and water systems (above and below ground). The survey will contribute to the assessment of the environmental impact of developments, provide a framework for future sustainable land use and for conservation planning and management in the Pilbara.

Purnululu National Park World Nomination

The Western Australian Government and the Commonwealth Government cooperated to nominate Purnululu National Park as a place of outstanding natural and cultural values for listing as a World Heritage Area. The Commonwealth submitted the nomination to the World Heritage Committee in February 2002.

The International Council on Monuments and Sites and the World Conservation Union assessed the nomination and reported to the World Heritage Committee with their recommendations during the early part of 2003. The assessment reports were based on analysis of the nomination and the findings of a joint field visit in August 2002. The World Heritage Committee was to consider the nomination and make a determination in early July 2003.

New wildlife licences

The State Government announced new regulations under the *Wildlife Conservation Act 1950*, which allow the keeping of reptiles and amphibians as pets in WA. The new Wildlife Conservation (Reptiles and Amphibians) Regulations provide the framework for a licensing system to keep native reptiles and amphibians as

pets. There are four categories of licence, which are based on the conservation status of the species and the degree of difficulty in keeping particular animals. They range from a basic keeping licence for common lizards and frogs, through to an expert keeping licence for venomous and relatively difficult to keep species such as death adders, tiger snakes and olive pythons. Licences are issued with special provisions covering activities such as keeping, dealing, farming and wild harvest and would take into account the experience and age of the applicants.

Fire management

The Department released a major internal review of its fire policy and operations during the year. This followed a three-day scientific and community symposium on the impact of fire on southwest ecosystems that attracted 350 delegates from throughout Australia during the previous year. Preparations commenced for an independent public review of the Department's fire management by the Environmental Protection Authority. Together, these initiatives represent a three-stage strategy to ensure fire management is in line with the State's biodiversity conservation objectives.

The 2002–2003 fire season in the southern part of the State was one of the most severe since the destructive wildfires of 1961 when the settlements of Dwellingup, Karridale, Holyoake and Nanga were destroyed. Key features of the fire season were long periods of hot, dry, windy conditions, and a relatively high number of lightning strikes. During the season, the Department attended 620 wildfires that burned 1.2 million hectares in the South-West Land Division. Of these, 549 wildfires covering almost 140,000 hectares were recorded in the southwest forests. Forty-two per cent of the wildfires were a result of lightning.

Major fires as a result of lightning occurred in the Mt Cooke region southeast of Perth (18,000 hectares); in the proposed Walpole Wilderness Area (29,000 hectares); in the D'Entrecasteaux National Park (24,400 hectares) and in the Cape Arid National Park and neighbouring unallocated Crown land (130,000 hectares).

Seasonal conditions also impacted on the area that could be prescribed burned in the southwest. The Department completed approximately 145,000 hectares of these burns. Although this was an increase on the previous two years, it was below the annual target of approximately 200,000 hectares.

The wildfire suppression activities in the southwest were bolstered with the provision of an additional two fixed-wing water bombers based in Manjimup. Water bombers also were based in Bunbury and Perth. Two medium-size helitankers also were based in Perth. The six fixed-wing water bombers were used in suppression operations for 166 wildfires in the southwest.

Training of staff involved in fire management, including wildfire suppression, continued to be a priority for the Department. Thirty-six fire training courses were conducted during the year and involved more than 580 staff. A key training initiative was the development and presentation of an Advanced Incident Leadership Program that was attended by senior CALM staff as well as personnel from other fire and land management agencies throughout Australia.

Senior Department fire managers also were deployed to the United States to help combat an outbreak of wildfires. This was the second time in three years that the Department had sent officers to the US during the northern hemisphere fire season.

Volunteers – integral service

The work of volunteers in helping to protect the environment was recognised in December 2002 with the presentation of the Department of Conservation and Land Management's annual Volunteer of the Year and Outstanding Service Awards by the Minister for the Environment. The awards come at time when the number of registered volunteers helping to conserve the State's environment continues to grow.

Selected as Volunteers of the Year were:

- Ellenbrook resident Don Briers, a stalwart of the Bibbulmun Track Foundation, which promotes and maintains the southwest walk trail;
- Frank Parrott, of Wembley Downs, who developed a database of historical information on the distribution of native mammals; and
- David Hancock, of Kingsley, for his commitment to helping conserve

Yellagonga Regional Park and Shepherd's Bush, through his dedicated work for 'friends' groups.

Outstanding Service Awards were also presented to:

- Wildlife Carers' Consultation Group (Penny Anderson, Liz Appelt, Marilee D'Souza, Ruth Haight, Mieke Gaikhorst, Isabel Hughes, Amanda Payne, Sue Smith);
- Chris Collins of Kununurra, for crocodile research survey project;
- Regional park volunteers at Darling Range;
- Vicki Laurie (Friends of Kadina Brook, Gooseberry Hill Block)
- Linda Stanley (Friends of Piesse Brook);
- David Taggart (Friends of Yellagonga);
- Neil Goldsborough (Friends of North Lake); and
- Jo and Dick Stone (Friends of Canning River)

The Department has more than 5,160 registered volunteers, whose skills and energy assisted a myriad of programs or projects. Volunteers continued to participate in several major ongoing projects such as the Bibbulmun Track and Cape-to-Cape Track maintenance, the campground host program, wildlife care and protection, flora and fauna surveys, plant curation, regional parks rehabilitation projects, and friends of parks groups.

The Community Involvement Program continues to provide opportunities for students to gain work experience throughout the year, and the Department receives valuable feedback from the public, through managing parks in partnership with community based advisory committees and friends of parks groups.

Output 1:

Nature Conservation

HIGHLIGHTS

- **Work commenced on the preparation of a new Biodiversity Conservation Bill with the release of a consultation paper seeking public submissions.** A total of 157 submissions was received reflecting overwhelming support for a new Act. Due in early 2004, it will replace the outdated *Wildlife Conservation Act 1950* and is a major initiative in providing greatly improved legislation for biodiversity conservation in the State.
- **Work was completed on input to a national assessment of terrestrial biodiversity – the first time such an assessment was undertaken encompassing all of Australia.** The assessment covers wetlands, threatened species and communities, land use impacts, information gaps, the reserve system and the capacity to integrate biodiversity conservation into broader natural resource management challenges. A summary was published under the National Land and Water Resources Audit and it is intended to publish in full the detailed Western Australian synopses and case studies prepared by nature conservation experts from within the Department.
- **In December 2002 the State Government endorsed the policy of establishing a comprehensive, adequate and representative conservation reserve system for Western Australia.** Work undertaken included progressing the establishment of new parks and reserves, the purchase of lands under the Gascoyne Murchison Strategy and the 2015 pastoral lease review. Under the latter up to

1.4 million hectares of land in the rangelands were identified as important additions to the conservation estate.

- **The Department continued to expand its significant involvement in the broad aspects of natural resource management.** Important progress was made with the signing of the Natural Heritage Trust bilateral agreement between the State and Commonwealth governments. Major steps also were taken towards the signing of the National Action Plan on Salinity and Water Quality bilateral agreement. In recognition of the Department's commitment to natural resource management in the State, it established a Natural Resources Branch.
- **A panel of three independent experts reviewed the Department's wildlife recovery program Western Shield in February 2003.** The panel's report will be made available for public comment, and the background papers published, later this year.
- **A five-year biological survey of the Pilbara was announced in February 2003.** This \$12.5 million project will research the area's plants, animals (including insects) and soils and water systems (above and below ground). Undertaken by the Department and the Western Australian Museum, the survey will be one of the State's biggest covering an area of 180,000 square kilometres.
- **The Department established Urban Nature to provide an integrated advisory, training and assistance service for urban bushland conservation groups.** The program will also encourage new urban bushland initiatives.

- **Seven species of native animals were translocated around the southwest under the Western Shield program.**
- **Thirty-seven species of native invertebrates were listed as either presumed extinct or threatened fauna.** Most of the species are terrestrial snails restricted to particular habitats in the east Kimberley where they are threatened by altered fire regimes and stock grazing.

Outcome achieved by:

The conservation of indigenous plants, animals and ecological processes in natural habitats.

Output description

The development and implementation of programs for flora and fauna conservation, for threatened species and ecological communities and for commercially exploited species according to the principles of ecological sustainability, the acquisition, conservation and protection of representative ecosystems; and encouraging public awareness, understanding and support for nature conservation services and policies.

Note: The Department uses the National Strategy for the Conservation of Australia's Biological Diversity definition of 'conservation', i.e. 'the protection, maintenance, management, sustainable use, restoration and enhancement of the natural environment.'

The Output performance can be best measured in three key areas:

1. **Wildlife and habitat management.**
2. **Wildlife utilisation.**
3. **Threatened species and ecosystems management.**

Legislation

In December 2002 a consultation paper was released seeking public comment on the development of a Biodiversity Conservation Act for Western Australia to replace the outdated *Wildlife Conservation Act 1950*. It is intended that the new Act will bring into place effective legislation that assists in achieving the State's responsibility to conserve Western Australia's renowned biodiversity. The new Act will encompass the key areas of protecting, restoring and sustainably using biodiversity. A particular goal of the proposed new Biodiversity Conservation Act is to meet criteria for accreditation to allow State implementation of relevant parts of the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*.

Public submissions closed on 5 March 2003 and 157 submissions were received. There was overwhelming support for the development of the new Act and it is intended that a draft Bill will be available early in 2004.

Associated with drafting the Bill is work on preparing a State Biodiversity Conservation Strategy. This strategy will set out objectives and targets to guide the various instruments at the Government's disposal, including biodiversity conservation legislation.

WILDLIFE AND HABITAT MANAGEMENT

Natural Resource Management

The Department continues to build on its involvement in natural resource management across the State with individuals, community groups and State and Commonwealth government agencies. Biodiversity conservation, with the Department as the lead State agency in this regard, is a major component of all natural resource management. This is in line with the objectives and responsibilities of the Department for the conservation of the

State's native plants, animals and natural ecosystems across all land tenures.

The Department, along with other key natural resource management agencies, is involved in the Natural Heritage Trust and the National Action Plan on Salinity and Water Quality. As part of the process for identifying priority projects under the Natural Heritage Trust, the Department had nineteen projects approved for funding totalling approximately \$2.4 million. Many of these projects are committed to the recovery of some of the State's most threatened flora and fauna.

Associated with this increase in commitment to natural resource management is the Department's membership of the State's main regional Natural Resource Management (NRM) groups. These groups have the responsibility of producing regional NRM strategies for accreditation by both the State and Commonwealth governments. The Department is committed to assisting those groups in addressing the biodiversity conservation aspects of those strategies. Senior regional Departmental staff work with community based regional NRM groups directly through representation on various councils and working groups. New dedicated resources were provided by the Department to build on the work that has been taking place with regional NRM groups. During the year the Department established two new positions to directly assist the rangelands and south coast regions in the biodiversity components of the regional strategies. It is also the role of these staff to provide inter-departmental coordination on the provision of the State Government's technical data and advice. The Department continued to host a number of marine/coastal and biodiversity conservation facilitators.

A new branch, the Natural Resources Branch, was established within the

Department, and will initially concentrate on the;

- Development and coordination of Departmental implementation of natural resource management policies.
- Coordination of Departmental interaction with regional NRM groups.
- Coordination of the implementation of State Salinity Strategy programs for biodiversity conservation funded through the Department.

Fauna Recovery – *Western Shield*

The wildlife recovery program *Western Shield* aims to facilitate the recovery of native wildlife populations by reducing and if possible removing introduced predators. Native wildlife populations recover naturally or are assisted through reintroductions back into their natural habitats throughout the southwest following predator control.

The Department conducted the first detailed review of the *Western Shield* program early in 2003. An independent panel of experts from universities and the CSIRO travelled to Perth to interview key Department staff and to inspect captive breeding facilities at Perth Zoo, Dryandra and Francois Peron National Park. The panel members inspected the Department's feral cat bait development facility. Representatives from several State and Commonwealth conservation and environmental agencies also attended the review meetings.

Through *Western Shield*, the Department continues to bait around 3.5 million hectares of lands it manages to control foxes and cats with more than 800,000 poison baits being used annually. Valuable corporate sponsorship is provided for the program, notably from Alcoa Australia Limited and TiWest Pty. Ltd.

Monitoring of fauna across the southwest continued to demonstrate the effectiveness of predator control in fauna recovery, although several populations were adversely affected by severe drought experienced in parts of the inland Wheatbelt during the past year.

Further research is being undertaken to develop suitable baits for feral cats and trials were undertaken to investigate the most appropriate baiting intensity in areas where alternative prey (eg. rabbits) are present or absent. Following the removal of feral cats from Faure Island, reconstruction of the mammalian fauna commenced with the introduction of boodies and Shark Bay mice on the islands.

The Department conducted translocations of black-flanked rock-wallabies, tamar wallabies, woylies and quenda to Avon Valley National Park; black-flanked rock-wallabies and tamar wallabies to Walyunga National Park; numbats to Stirling Range National Park; bilbies to Dryandra Forest and Francois Peron National Park; noisy scrub-birds to jarrah forest near Harvey and western swamp tortoises to a reserve near Mogumber and to Ellen Brook Nature Reserve.

The Wind Over Water Foundation generously sponsors much of the Department's work in feral cat control research.

Salinity Strategy

Work under the Salinity Strategy was largely one of consolidation last year. Planning and on-ground works continue in all six natural diversity recovery catchments. Highlights include the significant level of activity in the Lake Warden and Toolibin catchments (for example, a combined total of 285,000 seedlings planted); and the purchase of a valley floor location

at Lake Bryde, which will allow for better management of surface flows. Working with a wide range of groups and stakeholders is crucial to successful land management for conservation. Interesting examples include joint work on hydrological investigations with the Department of Environment in the Lake Muir-Unicup area; and collaboration between landholders, the Department and CSIRO at Buntine-Marchagee, which will underpin landscape level planning to conserve biodiversity using a focal species approach. This project, as with many in recovery catchments, tests important land management ideas for wider application in agricultural areas.

In line with recommendations in the Department's review of its salinity work, funds from the Crown Reserves Program are being re-focused on managing key landscape units, as the initial phase of rehabilitation works is completed. Examples include work with the Wallatin Creek Catchment Group and at Lake Magenta where the headwaters of the Fitzgerald River are threatened by salinity.

Monitoring work on wetlands provided new and important data. An example, with widespread application to a range of management work, is the contour mapping of lakebeds, shorelines and surface inflow and outflow channels of the Esperance Lakes System, Lake Bryde, East Lake Bryde, Lake Mears and a major part of the Yenyening Lakes System. Detailed maps covering each of these areas are available from the Department.

Results from a biological survey of the Wheatbelt are being prepared for publication and dissemination. This survey has been hailed as the first survey at the landscape level documenting the links between the loss of biodiversity and the impacts of the threatening salinity process. In 2002, it was announced that 450 native

plant species in the southwest of Western Australia were under direct threat of extinction because of salinity. Providing wider communication of the survey information will be a key objective next year.

Wetlands

The Department continues to Chair and provide support to the State's Wetland Coordinating Committee (WCC) and is actively involved in the implementation of the Wetlands Conservation Policy for Western Australia (1997) (WCP). The Department is represented on the working groups for classification and evaluation; wetland buffer zones, wetlands management manual and wetland loss - all established by the WCC to address actions of the WCP.

During the year, \$99,981 was allocated across 12 new wetland conservation projects, with projects contributing to the implementation of objectives and actions of the WCP. A further two projects continued from the previous year that involved longer term monitoring activities. Projects included the development and implementation of management plans, research, survey, monitoring and education/information (including visitor facilities). Successful projects involved wetlands that are listed under the Ramsar Convention, the Directory of Important Wetlands of Australia, the Register of National Estate, and as threatened ecological communities.

The Department re-drafted management plans for Thomsons and Forrestdale Lake nature reserves, and is facilitating closer collaboration between government agencies and non-government organisation stakeholders in gathering monitoring data for these two wetlands. The Department is taking a lead role in reporting on the biogeochemical values and health of the reserves.

Progress Towards a Comprehensive, Adequate and Representative Conservation Reserve System

At the end of 2002, the State Government completed the process of identifying pastoral leases where land was required for public purposes and which would be excluded from those leases in 2015. Leaseholders were given the option of negotiating with the State Government on boundaries and management issues relating to those exclusions. A total of 57 leases were identified as containing lands of conservation interest with an approximate total area of 1.4 million hectares. The Department has begun meetings with 37 leaseholders who have chosen to negotiate. A rangelands unit was established within the Department, which along with officers from a variety of Departmental regions, is responsible for liaising with leaseholders, advising the Pastoral Lands Board of progress and informing the Minister for Planning and Infrastructure of the outcomes. The timeframe for the completion of this negotiation phase is the end of 2004.

The Department acquired more than 521,690 hectares of land of high conservation value during the year for future addition to the conservation estate. Priorities for purchase were those areas containing ecosystems that are not adequately reserved in the existing conservation reserve system, and additions to existing reserves that would greatly improve their diversity or facilitate their management.

Funds for conservation land acquisitions were obtained from four sources: the Department's annual capital allocation; an allocation under the Gascoyne-Murchison Strategy; the National Reserve System component of the Natural Heritage Trust; and some funding from the Crown reserves component of the State Salinity Strategy. The total expenditure from all funding sources for the financial year was more than \$2.95 million.

With funds allocated under the Gascoyne-Murchison Strategy, the Giralia Pastoral Lease at the southern end of Exmouth Gulf and part of Wanna Pastoral Lease northwest of Mt Augustus National Park were purchased covering a combined total area of 519,700 hectares.

Acquisitions outside the Gascoyne-Murchison Strategy area included the following: two parcels of remnant vegetation in the Shire of Gingin supporting declared rare and priority flora totalling more than 525 hectares; 193 hectares of remnant vegetation situated in the upper reaches of Donkey Creek north-east of Eneabba; 24 hectares east of Busselton supporting the Southern Ironstone Threatened ecological community; 408 hectares of remnant vegetation and a freshwater wetland east of Geraldton; approximately 40 hectares adjoining the Lesueur National Park; 726 hectares in the Lake Bryde Recovery Catchment north-east of Pingrup in the south-eastern Wheatbelt; and an 81-hectare enclave within the Lane Poole Reserve supporting most of Lake Yourdamung.

The Department gratefully acknowledges the significant contribution made by the Commonwealth Government through the National Reserve System component of the Natural Heritage Trust, which supported the majority of the above purchases. This year's contribution amounted to more than \$1.65 million.

In addition to the above acquisitions, a 122-hectare parcel of land within the Shire of Chapman Valley was kindly bequeathed to the Department by the late Jean McGauran. The land will be set aside as a reserve for the purpose of 'Conservation and Seed Orchard'.

Indigenous Involvement

Continued support and assistance was provided to the Ngaanyatjarra Council

for the survey and management of bilby populations in the Tjirrkarli area and for surveys of Great Desert skinks in the Patjarr area, funded by Threatened Species Community Grants. The Goldfields Land and Sea Council/CALM working group continued towards the implementation of a Memorandum of Understanding Five Year Strategic Plan and staff visited conservation reserves and met with claimant groups throughout the Goldfields region. There was extensive consultation with the Ngaanyatjarra Council over joint management planning for the Gibson Desert Nature Reserve that included: a briefing and presentation at the Minister for the Environment's office by the Gibson Desert traditional owners; the Minister for the Environment attending a two day meeting in the Gibson Desert Nature Reserve, west of Patjarr, to meet traditional owners and discuss joint management options; continuation of agreements with Ngaanyatjarra people for assistance with operation Warru (rock wallaby) and bilby monitoring work in the Gibson Desert.

Cooperative management procedures were put in place for Mitchell Plateau (Ngauwu) with the Wunambal people. Close cooperation includes involvement with the prescribed burning program as part of ongoing efforts to implement an appropriate burning regime in the area.

Marine Estate Management

A moorings policy statement and a set of complementary guidelines for the administration of public and private moorings in Western Australian marine conservation reserves were finalised during the year. In addition, a moorings database was implemented to manage the Department's mooring related data. The Natural Heritage Trust National Moorings Program project, begun in 2001 with funding of \$256,000, was completed and resulted in new public moorings at two sites in Shoalwater Islands Marine Park, six in

Marmion Marine Park and 25 in Ningaloo Marine Park.

A network of long-term benthic monitoring sites throughout the State's marine conservation reserves was completed this year with the establishment of a further 14 monitoring sites in Marmion Marine Park, 13 in Shoalwater Islands Marine Park and seven in Swan Estuary Marine Park. The network allows the response of benthic communities to human activity and natural processes to be systematically monitored. Work commenced on developing a standardised annual performance assessment report.

Marine Planning and New Estate

A significant advance this year was made on the drafting of a joint Marine Parks and Reserves Authority (MPRA) and Departmental audit policy outlining the process of periodic assessment of the implementation of management plans, the resources allocated to them and the progress achieved. The policy provides for the development of annual 'marine work plans' for each marine conservation reserve by the Department and their consideration by the MPRA. Work plans were prepared for all existing marine conservation reserves and will form part of the annual performance assessment to be completed by September of each year.

The Department continued planning activities throughout the year for the establishment of new marine conservation reserves. This work focussed on the proposed Jurien Bay Marine Park, and proposals for marine conservation reserves in the Dampier Archipelago/Cape Preston, Montebello/Barrow Islands and Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet areas. The Department continued planning activities for the review of the Ningaloo Marine Park Management Plan (and a proposal for additions to the marine park), and the preparation of a draft management plan for the Rowley Shoals Marine Park. The community-

based Coral Coast Parks Advisory Committee was appointed to facilitate community input into the Ningaloo Marine Park Management Plan review. Planning for the proposed Walpole/Nornalup Inlets Marine Conservation Reserve commenced at the end of the financial year.

The advisory committee for the proposed Dampier Archipelago/Cape Preston Marine Conservation Reserve held two meetings and finalised its recommendations in respect to the draft indicative management plan for the proposed reserve. The Department conducted extensive consultation to support the advisory committee.

A working group comprising government and petroleum industry representatives was established to work through a number of key issues with regard to the proposed Montebello/Barrow Islands Marine Conservation Reserve, including specification of ecological management targets, environmental approvals processes and regulation of the petroleum industry in marine conservation reserves.

The Minister for the Environment launched the planning process for community consideration of the proposed Geographe Bay/Leeuwin-Naturaliste/Hardy Inlet Marine Conservation Reserve. Associated education products and tools were produced to assist the planning process including posters, a magazine and the development of content on the Department's website NatureBase. Initial consultation with key stakeholders was conducted and the Department appointed an officer to coordinate community consultation for the proposal.

Marine Conservation

The Marine Community Monitoring Program progressed through the year with the further development of a manual to assist community groups with monitoring the marine environment. A program launch,

scheduled for later in 2003, will promote the program and increase public awareness and encourage active community involvement in the management of the marine environment through participation in marine monitoring initiatives.

Departmental activities to facilitate externally driven research for conservation of the State's marine ecological and social values included the following:

- Representation on the joint venture management and technical advisory committees of the Strategic Research Fund for the Marine Environment;
- Representation on the steering and technical committees of the North West Shelf Joint Environmental Management Study;
- Input to the Australian Institute of Marine Science (AIMS) triennial research planning;
- Collaborations in funding applications and on-the-ground marine research projects with AIMS, CSIRO and local universities;
- Collaborative involvement with the CRC for Coastal Zone, Estuary and Waterway Management in the successful bid for \$3 million in supplementary funds for research and development into acoustic instrumentation and methods for the broad-scale identification and mapping of benthic marine habitats;
- Seed funding of undergraduate and post-graduate marine research through local universities; and
- The development of marine research databases and prioritised marine research plans for existing marine conservation reserves;

Several funding applications to the Commonwealth Government's Natural Heritage Trust (NHT) program for projects that will provide information to facilitate management of high conservation value marine areas were

successful, providing approximately \$540,000. The projects will involve a range of activities involving baseline surveys of water quality, benthic communities and human usage patterns, implementing data management systems, education and interpretation strategies and Statewide marine community monitoring. Areas of particular focus include Roebuck Bay, the proposed Jurien Bay Marine Park and the existing Marmion and Shoalwater Islands marine parks.

An ecological risk assessment framework was developed to assist in prioritising management efforts for more than 25 species of marine wildlife within Western Australia. Generic management strategies were developed to guide the nature and priority of management actions required for the conservation and management of these species.

A four-year project to characterise dugong movements and associated feeding behaviours in the Shark Bay World Heritage Property was completed. The project was partly funded by the Commonwealth Government and conducted collaboratively by the Department, Shark Bay Yadgalah Aboriginal Corporation Inc., Edith Cowan University and James Cook University. The Shark Bay dugong population has a high conservation value, nationally and internationally, and the project provided important insight and understanding on the dugong's seasonal movement patterns and foraging grounds. These are key information requirements for management of human pressures on these animals. The Yadgalah Corporation considered it an important project for an Indigenous organisation to work together with a government department in on-ground research that contributed to both conservation outcomes and capacity building for indigenous involvement in management of culturally important wildlife species.

A communications plan was prepared to provide strategic direction in the Department's education and awareness raising strategies for marine conservation. The plan defines a vision for marine conservation communications, core communication objectives, target audiences, key messages and suitable strategies for implementation. Its development consolidates previous education programs and provides a strategic platform to prioritise and implement education/awareness initiatives.

Community based conservation

The Department's *Land for Wildlife* scheme is a voluntary program that aims to increase the area of wildlife habitat under voluntary private management. To achieve this, landowners or leaseholders are invited to register their properties in the scheme. An assessment is made of the quality of the wildlife habitat and advice is provided to encourage land management based on sound ecological methods. Advice is provided to allow landholders to obtain assistance in fencing, replanting and managing wildlife habitats.

During the year, 174 properties were inspected and assessed for registration to the scheme. The total area of dedicated wildlife habitat was 12,944 hectares.

To 30 June 2003, a total of 1,223 properties applied to join *Land for Wildlife*. Of these, 981 have been assessed, while 242 are awaiting assessment. Properties that have been assessed include 115,635 ha of land whose primary management purpose is nature conservation.

The Voluntary Nature Conservation Covenant Program assists private landowners with the conservation of bushland of high nature conservation value, by placing a protective covenant on the land title, and providing management advice and assistance through incentives and a stewardship

program. To 30 June 2003 the program had established 27 covenants in perpetuity on 32 titles protecting a total of 606 hectares of land. Sixteen covenants were established during the year. A further 49 covenants are in negotiation covering 9,490 hectares.

Covenant Program staff include the Covenant Coordinator and Technical Officer based in Perth, and four regional Covenant Officers on contract or casual employment based in Narrogin, Busselton, Katanning and Northam. The program entered into a contractual arrangement with staff from WWF Australia's Woodland Watch Program to improve the delivery of covenants in the Central and Northern Wheatbelt. Such a partnership represents an excellent opportunity for government and non-government organisations to work together and provide a combined service to private landowners.

Ecoplan is a community support program that operates through community partnerships. The program supports community conservation volunteers and friends groups, raises public awareness about bushland and biodiversity values, and undertakes education and training programs for conservation volunteers.

The Ecoplan Bushland Care Day program operates in conjunction with Conservation Volunteers Australia. During the year there were eight bushland care days with a total attendance of 440 volunteers.

The Skills for Nature Conservation Education and Training Program operates in conjunction with Greening Australia (WA) and the Swan Catchment Centre. Twenty Skills for Nature Conservation workshops and seminars were conducted through the year with an attendance of 360 people, participating in more than 500 hours of workshops and skills training.

During the year it was announced that Ecoplan would become part of a

broader urban bushland advisory service, to be called Urban Nature. Urban Nature will extend the activities of Ecoplan to more managers of urban bushland by providing an integrated service for advice, training, best practice guidance, community capacity building as well as access to expert knowledge and assistance on urban bushland conservation management.

The Department continued to provide biodiversity advice to the Commissioner for Soil and Land Conservation as part of the assessment process for notices of intent to clear native vegetation. Biodiversity advice was provided for 99 clearing notifications during the year, covering 8531.6 ha at 12 interagency meetings. In addition, verbal and written advice was provided to landholders intending to clear vegetation and site visits were undertaken to 15 properties.

The Department assisted the Department of Environment in developing regulations and procedures for implementing the new land clearing assessment process proposed under the *Environmental Protection Amendment Bill 2002*. During this process, a prototype GIS system was developed for assessing the potential biodiversity values of areas notified to be cleared and for recording and mapping proposal areas.

The Department continues to host and chair the Roadside Conservation Committee (RCC) and promote its activities. The Department and Main Roads Western Australia each pay 50% of the Executive Officer's salary and the Department meets all other costs associated with servicing the RCC.

The Committee's terms of reference are "To coordinate and promote the conservation and effective management of native vegetation on road and rail reserves for the benefit of the environment and the people of Western Australia". The Roadside Conservation Committee has no powers to regulate for, or enforce, the

protection of roadside vegetation. Achievement of its terms of reference is based on cooperation, liaison and the voluntary acceptance by all who work in the roadside environment of management practices that maintain a safe and efficient road system while ensuring the sustainability of the many values present within the roadside.

The increasing public awareness of the value of roadside vegetation resulted in a noticeable increase in public complaints about alleged excessive clearing of vegetation in transport corridors, and the specific consideration of the conservation of roadside vegetation in the vegetation clearing provisions included in the *Environmental Protection Amendment Bill 2002*. The RCC has been working with the Department of Environment on the implementation of the proposed vegetation clearing regulations, as they will apply to roadside vegetation.

The RCC, Main Roads Western Australia and the Western Australian Local Government Association produced a booklet 'Environmental Code of Practice for Road Construction and Maintenance Works' during the year. This booklet provides background information and environmentally acceptable best practice procedures for activities associated with working in road reserves. As a result of ongoing mapping and surveys of conservation values of roadsides during the year, roadside conservation value maps and reports were produced for the Shires of Esperance, Broomehill, Murray, Kojonup, Manjimup and Augusta-Margaret River.

In the Frankland District the importance of native species and ecological communities was promoted through the involvement of local volunteers in weed control and biodiversity monitoring. The community was involved in projects such as *Typha* removal in William Bay, tammar wallaby and woylie translocations in Thames Block, post-fire invertebrate and small vertebrate monitoring in Nuyts Wilderness and wetland bird survey work in the Irwin Inlet.

In November 2001, the Minister for the Environment established an agency and community based Tuart Response Group chaired by the Department of Conservation and Land Management. The group's objective is to advise on and coordinate the development of the Government's *Tuart Conservation and Management Strategy and Action Plan* and investigate the cause(s) of tuart decline at Yalgorup. It also is charged with the preparation of educational material for improved tuart protection on freehold lands. The Tuart Response Group has met on 12 occasions and conducted two field trips. Its main achievements include:

- The release of the Status Report on *Tuart Conservation and Protection*, and the *Tuart Community Participation Plan*. These can be viewed on the Department's NatureBase website;
- The development of an 'atlas' of the extent and condition of tuart and its associated understorey;
- A series of community and stakeholder workshops on tuart health research, conservation and management strategies, and community awareness programs;
- The development of remote sensing satellite tools for monitoring changes in the extent and impact of tuart decline; and
- The provision of advice to the Minister for the Environment on models for the formation of a Wandoo Response Group.

In February 2003 the Minister for the Environment established an agency and community based Wandoo Response Group chaired by the Department of Conservation and Land Management. Its functions are to advise and coordinate on the improved understanding and mitigation of decline in wandoo health and the health of other Wheatbelt woodland species, the development of educational material for individual landowners and the community to combat the decline, and the work of various wandoo interest groups and research projects.

BIOLOGICAL SURVEY AND MONITORING

The mammal fauna of the Kimberley was previously regarded as reasonably secure and not subject to the massive declines that have occurred elsewhere in central and southern Australia over the last 100 years. However, there has been growing concern that the increased frequency and extent of fire in the Kimberley together with grazing by introduced animals, is having a detrimental impact on the biodiversity of this region. In June 2003, mammal surveys of sites in the northwest Kimberley that were sampled in the 1970's and 1980's were resampled. While many of the critical weight range mammals (35–4200 g) were still present, arboreal species appeared to have declined. Another survey of sites further inland will be undertaken in June 2004.

In February 2003 the start of a \$12.5 million biological survey of the Pilbara was announced. The survey area covers 180,000 square kilometres and will be undertaken by the Department with assistance from the Western Australian Museum. The five-year survey will involve the establishment of 800 sites studying the plants, animals (including insects) and soils and water systems (above and below ground). The survey will contribute to the assessment of the environmental impact of developments, provide a framework for future sustainable land use together with conservation planning and management in the Pilbara. As part of this project a survey of the biodiversity of groundwater habitat commenced in July 2002. This component of the survey aims to document and describe the stygofauna of the Pilbara and to begin ecological investigations of these species, especially in relation to physico-chemical parameters. Results to date indicate there is a greater diversity of animal groups represented than previously thought to occur in stygofaunal habitats of the Pilbara. New species were discovered, including possibly new families of small aquatic crustaceans.

As a contributor to a national assessment of the state of Australia's biodiversity, work on the 59 Interim Biogeographic Regions of Australia sub-regions in Western Australia and two detailed case studies was completed by Departmental nature conservation experts. This nationally important study looked at;

- the condition and trend of nationally and regionally important wetlands and riparian zones and threatening processes affecting them;
- the status and distribution of threatened species and ecological communities and processes threatening them;
- the impact of land use on biodiversity identified through a detailed analysis of mammals, birds, acacias and eucalypts;
- the status of the conservation reserve system and the gaps in this; and
- the capacity to integrate biodiversity conservation into natural resource management generally, recover threatened species and repair threatened ecosystems based on land and water degradation, socio-economic issues and community capacity.

A summary was published under the National Land and Water Resources Audit. It is intended to publish the detailed Western Australian synopses and case studies in full.

Biological survey and monitoring work for Goongarrie and Lorna Glen stations were undertaken in the Goldfields region. Work was also conducted on the conservation significance of the Abrolhos Islands for reptile species in conjunction with the Western Australian Museum. Populations of the significant species *Morelia spilota imbricata* (Southwest carpet python) on West and East Wallabi Islands were surveyed to determine population health and dynamics.

The Western Australian Herbarium

During the year 29,044 flora specimens were added to the collection of the Western Australian Herbarium that currently comprises the following total number of specimens:

Algae	5,473
Mosses	5,370
Liverworts	1,437
Fungi	7,288
Lichens	6,861
Ferns	3,025
Gymnosperms (Pines, Cycads)	1,723
Flowering Plants (Monocots)	88,641
Flower Plants (Dicots)	441,760
Total number of databased specimens	561,857

Records of all specimens incorporated in the Herbarium are entered into the Herbarium Specimen Database (WAHERB), which is updated constantly. During the year, a total 30,589 records were added to WAHERB. Of special note, 1,244 priority flora and 291 declared rare flora specimens were added to the State Collection, bringing the total collection of priority and declared rare flora to 31,372 specimens.

Over the last year the Australian Virtual Herbarium (AVH) project progressed the databasing of the backlog of specimens at the Herbarium, curating, identifying, databasing and validating the material to be incorporated into the main herbarium collection. To date, a total of 33,705 specimens has been processed as part of the AVH since project commencement in 2001. Of these, 17,262 records were processed during the year. The project remains on target to complete databasing the entire backlog of specimens by the end of this five-year national project.

Biosystematics and conservation studies of flora continued, with specific work on Proteaceae (*Isopogon*, *Petrophile*), Poaceae (*Amphipogon*, *Austrostipa*), Lamiaceae (*Dicrastylis*), Epacridaceae (*Leucopogon*,

Conostephium), Dilleniaceae (*Hibbertia*) and Myrtaceae (*Astartea*, *Astus*, *Enekbatus*, *Cyathostemon*, *Thryptomene*, *Pterocarpus*, *Scholtzia*, *Agonis*, *Taxandria*). Studies on the Myrtaceae were supported by a grant from Australian Biological Resource Survey (ABRS). Targeted taxonomic work was undertaken on declared rare and priority flora. A *Census of WA Lichens* was completed, which will serve as the basis for a lichen section of the Herbarium's online information system *FloraBase*.

There are now some 60 active Regional Herbaria in the Western Australian Regional Herbarium Network Project, which plays an important role in both the collection of flora information and the dissemination of this knowledge to the regional community. A number of training workshops were held and the number of trained collectors continues to increase. The project continues to make a positive impact on the knowledge of the location of rare and threatened plant species with 70 reports on plants in this category being received, as well as making discoveries of new taxa. During the year, Regional Herbarium Network volunteers added 2,077 specimens to the Herbarium collection.

The Census of Western Australian Plants (WACENSUS) now contains more than 17,660 records, representing 13,250 currently recognised vascular plant taxa for the State.

FloraBase is the Herbarium's on-line information system, which integrates corporate biodiversity information by providing global access to descriptive, nomenclatural, geographic and image data through the Internet. During the year a completely new version of *FloraBase* was developed, which will be officially launched in the coming year. In addition to a new interface and functionality, this version has significantly increased content, notably addition of generic and family

descriptions. Registration for *FloraBase* was further rationalized and now required only for users requiring access to specimen data. During the year *FloraBase* responded to a total of 1,026,485 enquiries.

The Plant Image Database is rapidly growing through the assistance of volunteers who scan and edit photographs before archiving them at high resolution. Twenty-five thousand images have been scanned to date. Composite images illustrating habitat and detail of some 4,300 species are now available on-line via *FloraBase*.

Max, a species database utility, has become an indispensable tool for many Departmental staff collaborators in maintaining their species database. It forms a vital component of the Regional Herbaria Network with many country users. There are now some 300 registered users of this software, including a number of commercial clients. A number of features were added to *Max* including full support for coordinate and datum conversion. More than 5,400 records were added to WAHERB using *Max* during the last 12-month period, avoiding re-keying specimen collection data.

The Herbarium continues to benefit from a major volunteer program. During the year, volunteers contributed 17,336 hours to a wide range of projects including specimen mounting, image scanning and editing, the Reference Herbarium, Regional Herbaria and Weed Information Network (WIN), geo-coding validation, specimen incorporation and curation of plant groups of special interest. In addition, the Regional Herbaria and Weed Information Projects effectively harness the efforts of some 200 volunteers Statewide.

WIN continues to maintain and update a complete list of Western Australia's weed species. During the year specimens of *Cytisus* and other species

were sent overseas for up-to-date identification by taxonomists. The current list and available information on taxonomy, and specimen details, including geographic distribution in Western Australia, are made available through *FloraBase*. Volunteer researchers at the Herbarium have compiled detailed descriptions of approximately 400 weed species.

WILDLIFE UTILISATION

The Department ensures that wildlife-based activities are licensed in accordance with the *Wildlife Conservation Act 1950* and conducts monitoring and investigations to ensure compliance with legislation and the licences issued.

Management of the commercial harvesting of kangaroos continued throughout the year, with input from the Kangaroo Management Advisory Committee. The kangaroo management plans (1998–2002) expired on December 31 2002, and the Commonwealth Government approved, under the *Environment Protection and Biodiversity Conservation Act 1999*, new management plans for red and grey kangaroos that will operate for the period 2003 to 2007.

During the preparation of the management plans the Commonwealth Government advised that they would not approve a management plan for the euro, despite the fact that such a plan has been approved since 1985.

Under the new programs, commercial harvest quotas were set for red and grey kangaroos for the 2003 calendar year. During 2002, aerial kangaroo population surveys were undertaken over the southern survey zone as part of the triennial survey program.

The management program for saltwater crocodiles and freshwater crocodiles in Western Australia continues to be implemented. This covers all aspects of crocodile management, including crocodile

population surveys and regulation of crocodile harvests, farming, processing and export.

Under the management program, commercial harvests of live crocodiles for farm breeding stock development, and limited harvest of eggs and hatchlings, can be approved. For management purposes, these harvests are primarily restricted to the Cambridge Gulf area, where monitoring ensures that the wild crocodile populations are conserved. Surveys were again undertaken of saltwater crocodile and freshwater crocodile populations in the Cambridge Gulf and Lake Argyle areas during the year.

A total of 6,115 fauna (other than damage, but including non-commercial) licences were issued during the year, an increase of 3.1% from the previous year (see Appendix 7). The increase was due primarily to introduction of the new pet herpetofauna licensing system in March 2003. The total number of flora licences/permits issued was 2,180, an increase of 11.1% from the previous year, with an increase in permits to take declared rare flora, scientific/prescribed and sandalwood licences. The Department issued 453 Commercial Purposes Licences and 406 Commercial Producer's Licences/Nurseryman's Licences in 2002 to 2003.

The Department revised the State commercial flora harvesting management plan for approval under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*. The management plan was approved for the period 2003 to 2008, facilitating the export of native flora sourced from Western Australia for that period.

The Western Australian Flora Industry Advisory Committee met twice during the year, and provided flora industry management advice to the Department and the Minister for the Environment.

The majority of district and regional flora industry staff can now access the Flora Industry Data Management System to obtain information on the industry operation in their management areas, and input flora industry endorsements. There are currently four flora industry management teams; Southern, Swan Region, Warren Region and Northern Sandplains. These groups meet as is necessary to coordinate the industry and to discuss management issues.

Intensive management of *Banksia hookeriana*, *Boronia megastigma*, *Stirlingia latifolia*, *Verticordia nitens*, and eucalyptus stems used for making didgeridoos continued during the year. Monitoring of *Banksia hookeriana*, *Dasyopogon bromeliifolius* and brushwood continued to determine their regeneration following disturbances such as fire and harvesting.

Current investigations include issues relating to firewood collection, private property logging and the development of a new management plan for *Santalum spicatum* (sandalwood).

Marine Interactions

A total of 109 whale-watch boat-tour operators are licensed Statewide, an increase of two (1.0%) on last year. While these tours were primarily based on humpback whales, southern right whales are the focus of whale watching activities in the Albany area.

There were 86 boat-based dolphin interaction licences, three in-water dolphin interaction licences and three boat-based dugong interaction licences issued. No in-water sealion interaction licences were issued, however 43 boat-based Australian sea lion/ New Zealand fur seal interaction licences were issued, an increase of 22 (104.7%).

Fifteen Whale Shark interaction licenses were issued for the year. Passenger numbers increased to record levels from 4,195 (2001–2002) to 4,975 (2002–2003), an 18.6% increase.

Problem Wildlife and Offences

Departmental staff provided advice on a wide range of wildlife matters in response to many thousands of inquiries from members of the public. Calls involved sick, injured and orphaned fauna; fauna causing a nuisance, such as possums living in rooves and noise from frogs and ravens; dangerous fauna, including venomous snakes and swooping magpies; and fauna, such as kangaroos, ducks and parrots, causing damage to private property and primary production. A summary of licences issued is at Appendix 7.

Officers in the Kimberley and Pilbara received six reports of problem crocodiles. Licences to remove the six saltwater crocodiles from the wild were issued because of the threat they posed to public safety. Other dangerous fauna licences were issued for magpies (74), butcherbirds (2) and galahs (1) at an airstrip that represented a risk of bird strike on aircraft.

Fauna causing damage resulted in 62 licences issued for emus, 927 licences for grey kangaroos, 34 licences for Western long-billed corellas, 45 licences for twenty-eight parrots, 20 licences for galahs and 24 licences for Australian ravens. The total number of damage licences issued for birds was 290, an increase of 17% from 2000 to 2001.

During the year, Departmental staff provided guidance to many people regarding the legal requirements of conservation legislation. Verbal warnings were issued for minor offences as appropriate. Written reports were prepared for 326 offences under the *Wildlife Conservation Act and Regulations* and 152 offences under the *Conservation and Land Management Act and Regulations*. In addition, 18 offences under the *Agriculture and Related Resources Protection Act and Regulations* were prosecuted for illegally importing and keeping prohibited bird species. To

date, action in 131 matters under the *Wildlife Conservation Act* and 124 matters under the *Conservation and Land Management Act* were completed. See Appendix 9 for further details of offences.

THREATENED SPECIES AND ECOSYSTEMS MANAGEMENT

New lists of threatened flora and fauna under the *Wildlife Conservation Act* were endorsed by the Minister for the Environment and gazetted on 11 April 2003.

As at 30 June 2003, the fauna listing has 187 taxa threatened with extinction. Thirty-three invertebrate taxa were added to the list of species threatened with extinction and none were deleted. In addition a further four taxa of invertebrates were added to the list of species presumed to be extinct. One millipede and 32 terrestrial snail taxa were added to the list, while all four presumed extinct taxa added to the list were also terrestrial snails.

Seventeen taxa of fauna are now listed as presumed to be extinct, 30 bird species are specially protected because of their listing under the Japan and Australia Migratory Bird Agreement and the China and Australia Migratory Bird Agreement, and 11 taxa are otherwise specially protected. The Priority Fauna List has 196 taxa.

A further 22 taxa (one amphipod, two freshwater fish and 19 terrestrial snails) were added to the Department's Priority Fauna list following the March 2002 and March 2003 meetings of the Threatened Species Scientific Committee.

With respect to flora, there are currently 351 taxa of extant declared rare flora and 15 listed as presumed to be extinct. During the year, three taxa were added to the extant list, namely *Calectasia cyanea*, *Dryandra pseudoplumosa* and *Eucalyptus recta*. One species was deleted from the list due to studies determining that the

taxon, *Eucalyptus olivacea* ms, was sympatric with *Eucalyptus macrandra*. One taxon (*Stachystemon nematophorus*) was removed from the list of flora presumed to be extinct following its re-discovery in Kalbarri National Park by Departmental volunteers during the previous year.

Volunteers continue to make a significant contribution to the survey effort for declared rare and priority flora, including through the Regional Herbarium program. A further 41 taxa were added to the Department's Priority Flora list, 19 taxa were deleted from the list on the basis of further survey and taxonomic review and three transferred to declared rare flora. A total of 2,086 taxa are listed as Priority Flora.

Project Eden, on the Peron Peninsula in the Shark Bay World Heritage area continues to bring significant results with regular sightings of bilbies all over the peninsula and the capture of second generation wild recruits. Large numbers of malleefowl chicks were sighted this year. The Shark Bay Primary School was involved in an integrated study program based around terrestrial and marine fauna conservation. *Project Eden* has hosted two international environmental student study programs.

In the Frankland District pig trapping programs were completed with particular attention given to peat lands and threatened flora and fauna habitat, such as that of *Reedia spathacea* threatened ecological community (TEC) and *Spicospina flamocaerulea* (sunset frog).

In May 2003 a survey for Western ground parrots was undertaken in the Cape Arid National Park and the western part of Nuytsland Nature Reserve. The ground parrot had not been recorded at Cape Arid since the mid-1980s despite several dedicated surveys and there was some doubt as to whether they still occurred in the area.

The survey was successful in relocating and confirming the presence of the species at three sites in patches of vegetation that had survived two large wildfires last summer.

Threatened flora surveys in the Albany District involving 389 site visits resulted in 25 new populations or sub-populations of threatened taxa and 97 new populations of priority taxa. Two new populations of the orchid *Caladenia bryceana* subsp *bryceana* and two new populations of *Isopogon uncinatus*, both of which are critically endangered, were found. Volunteers located several new populations of threatened plants. Several new populations of threatened flora were discovered throughout the Merredin District including *Eucalyptus recta*, *Acacia ataxiphylla* subsp *magna*, *Eremophila resinosa*, *Hakea aculeate* and *Grevillea roycei*. In the Goldfields region declared rare and priority flora surveys were conducted in the Windarling and Bungalbin areas.

Fire management strategies for the Waychincup-Two Peoples Bay area were the subject of a two-day workshop held in Albany in March this year. The area contains the only population of the critically endangered Gilbert's potoroo, the largest single population of noisy scrub-bird and important populations of Western whipbird, Western bristlebird and a small population of Western ground parrot. The number of sensitive species combined with difficult mountain terrain requires special fire management consideration.

A total of 149 hectares (21 sites) of *Phytophthora cinnamomi*-affected vegetation was treated with phosphite in the annual aerial spraying program. These sites contain eight critically endangered and seven other threatened flora species, many of which are part of the Eastern Stirling Range or the Montane Mallee TECs.

Monitoring data from the 21 target areas in 2003 show no significant population decline within 19 of these targets. The phosphite spray regime was modified in some cases where sensitive juveniles of threatened flora species have appeared since the October 2000 fires in the Stirling Range. No major declines in the numbers of juveniles within the 2000 burn sites due to *Phytophthora cinnamomi* were observed to date.

Recovery Teams

Regional and District Threatened Flora Recovery Teams coordinated the recovery of threatened flora, and in some cases threatened ecological communities, in the South West, Warren and Swan Regions, and the Geraldton, Esperance, Merredin, Albany, Moora, Katanning and Narrogin Districts. Recovery teams operate for one threatened species (*Grevillea scapigera*) and particular TECs: Toolibin Lake; sedgeland in Holocene dune swales; thrombolites of Lake Richmond; thrombolites of Lake Clifton; aquatic root mat communities of caves of the Swan Coastal Plain, and of the Leeuwin Naturaliste Ridge; and montane thicket and heath community (Stirling Range). The North West Cape Karst Management Advisory Committee oversees the preparation and implementation of recovery plans for Camerons Cave and Cape Range remipede (Bundera Sinkhole) communities, and the Lake Bryde

Recovery Catchment Team covers two occurrences of the *Muehlenbeckia* and *Tecticornia* lake bed community.

A new Threatened Flora Recovery Team was established in the Esperance District and the first meeting held on 24 October 2002.

During the year recovery teams continued to oversee recovery of the following species of threatened fauna: Gilbert's potoroo, numbat, dibbler, south coast threatened birds (noisy scrub-bird, Western bristlebird, Western whipbird and Western ground parrot), Muir's corella, Carnaby's black-cockatoo, Western swamp tortoise, Lancelin Island skink and orange-bellied and white-bellied frogs. A new recovery team was established for the Western ringtail possum. Implementation of the national recovery plan for the malleefowl continues via the WA Malleefowl Network, with the involvement of the Department, Threatened Species Network and many members of the rural community.

Recovery actions – flora

Many recovery actions were implemented for threatened flora in the Albany, Narrogin, Moora, Geraldton, Katanning, Merredin and Esperance districts, and Swan and South West Regions.

Survey results included a larger count (>10,000) of the declared rare flora

(DRF) species *Eucalyptus cerasiformis* in the Bremer Range, the rediscovery of two old populations of *Rhizanthella gardneri* in the Munglinup area, not seen since 1989, and the relocation of a population of *Eremophila subteretifolia*, not found for some years.

In the South Coast Region 54 taxa of threatened flora and 100 priority flora were surveyed or monitored in 2002 (389 site visits), and a translocation program began for *Daviesia microcarpa*, with a watering system established and 500 seeds planted.

Among many actions in the Wheatbelt Region have been the following: the translocation of *Darwinia carnea* continued with a further 180 plants being planted into two secure sites in partnership with the Central South Naturalist Club and Botanic Gardens and Parks Authority; *Symonanthus bancroftii* was translocated into two secure sites as part of a Departmental project in partnership with the Bruce Rock Land Conservation District Committee (LCDC) and Botanic Gardens and Parks Authority; rabbit proof fencing was erected around the extant population of *Eremophila verticillata*; the Cunderdin LCDC, through WWF/NHT community grants and in partnership with the Department, have provided recovery actions for extant populations of the taxa *Daviesia cunderdin* and *Acacia volubilis*, and have set up a translocation project for the two taxa.

New populations of the following threatened flora were discovered:

Acacia aprica
Acacia auratiflora
Acacia depressa
Acacia leptalea
Bentleya spinescens
Caladenia bryceana subsp. *bryceana*.
Caladenia elegans
Calectasia pignattiana
Conostylis micrantha
Drummondita ericoides
Eremophila denticulata subsp. *denticulata*.
Eremophila veneta
Gastrolobium hamulosum
Gastrolobium lehmannii

Goodenia integerrima
Grevillea phanerophlebia
Grevillea scapigera.
Lasiopetalum rotundifolium.
Lambertia echinata subsp. *occidentalis*
Lasiopetalum pterocarpum
Microcorys eremophiloides.
Muehlenbeckia horrida subsp. *abdita*
Myoporum turbinatum.
Orthrosanthus muelleri
Ptilotus fasciculatus.
Stachystemon nematophorus
Thomasia montana
Verticordia staminosa subsp. *cylindracea* var. *erecta*

In the Geraldton District, fencing of *Gyrostemon reticulatus* was completed, and translocations of *Verticordia spicata* subsp. *squamosa* and *Eremophila nivea* continued. Drainage and erosion control programs were instigated to help protect populations of *Caladenia elegans* and *Pterostylis micrantha*. New populations of five DRF and 11 priority taxa were located during extensive field surveys.

Many recovery actions for threatened flora were completed under the NHT project 'Conservation of the Critically Endangered "Southern Ironstone" Community in Busselton'. This includes the continuing involvement of many volunteers in the translocations for *Grevillea maccutcheonii*, *Gastrolobium papilio*, *Petrophile latericola*, and *Darwinia* sp. Williamson; hydrological investigations, and spraying to control dieback.

The NHT funded project 'Conservation of Nine Critically Endangered Plant Taxa in the Moora District', was completed. Some highlights include detailed investigations of the biology of *Eremophila scaberula*, *Grevillea humifusa*, *Grevillea batrachioides* and *Gastrolobium hamulosum*. During this project, the numbers of plants in populations of all these taxa, and of *Synaphea quatrztica* and *Jacksonia pungens* were found to be greater than previously recorded. New populations of *Gastrolobium hamulosum* and *Acacia aprica* were located. Translocations were instigated for *Eremophila scaberula*, *Grevillea humifusa* and *Grevillea batrachioides*

In the Swan Region, a very high survival rate was noted during the monitoring of the translocated population of *Lasiopetalum pterocarpum*, and a new population of this species was located. Weed control trials on the two subspecies of *Grevillea curviloba* have continued. Grids were erected over populations of *Thelymitra manginiorum* to prevent

grazing by feral pigs and bandicoots. A new project writing and implementing interim recovery plans for rare flora threatened by salinity commenced. The State Salinity Strategy will fund this project for two years.

Recovery actions – fauna

During the year implementation of recovery plans continued for the following species of threatened fauna: Gilbert's potoroo, Numbat, Dibbler, south coast threatened birds (noisy scrub-bird, Western bristlebird, Western whipbird and Western ground parrot), Muir's corella, Carnaby's black-cockatoo, Western swamp tortoise, Lancelin Island skink, orange-bellied and white-bellied frogs and the Western ringtail possum.

Recovery actions – ecological communities

Implementation actions for critically endangered TECs on the Swan Coastal Plain included around 150 hectares of weed control, rehabilitation of around 50 hectares, a hydro-geological investigation on mound springs of the Swan Coastal Plain, a re-survey of the Leeuwin caves and mound springs fauna, and the drafting of a management plan for Mundijong Road and Duckpond Reserves.

Maintaining and updating information on botanical and other types of communities on the TECs database continues. Approximately 100 new occurrences of 'endangered' and 'vulnerable' threatened ecological communities on the Swan Coastal Plain were surveyed and the information added to the database. Most of these TECs were identified in the Bush Forever document and System 6 survey and were sites that were not already included.

A review of the category of threat for several Swan Coastal Plain floristic communities was undertaken. The outcome is the establishment of a monitoring program to clarify whether

any significant change in the condition of TECs has occurred since they were first assessed. The project to identify and conserve TECs in the agricultural southwest of Western Australia, (previously funded by NHT) continues to be funded by the State Salinity Strategy and concentrates on TECs threatened by salinity and water-logging.

A cooperative program between the Department and the Water and Rivers Commission, Water Corporation and Forest Products Commission is designing and installing an emergency water supply for the critically endangered root mat community of the Yanchep Caves and the Crystal Cave Crangonyctoid. The first trials for this major artificial recharge scheme were encouraging and work is continuing with the intention of completion for at least five caves before summer 2003–2004.

Off-reserve conservation work with the North Kimberley LCDC and monitoring of occurrences of North Kimberley mound spring communities continued. A Living Wetlands grant from Wetlands Conservation Australia and Banrock Station Wines for \$14000 was obtained to fence a mound spring in the North Kimberley

In a joint project between the Department and the Broome Botanical Society, the survey of occurrences of the monsoon vine thickets of the coastal sand dunes of Dampier Peninsula, north of Broome continued. Thirty-nine patches were surveyed. The conservation management of these vine thickets was promoted in liaison with Aboriginal people and organisations, including a cultural day out for primary school children from Lombadina-Djarindjin Catholic School to visit some examples of the monsoon vine thickets.

Hydrological monitoring at two of the critically endangered TECs 'Perched wetlands of the Wheatbelt region with

extensive stands of living sheoak and paperbark across the lake floor' was continued with the assistance of funds received from the Wetlands Conservation Program. Biennial monitoring of tree health was carried out for a second time. The very extensive recovery program for this community at Lake Toolibin continued, with considerable cooperation and interaction with the local community and landholders.

A camping reserve in the Shire of Three Springs containing occurrences of the vulnerable ferricrete floristic community (Rocky Springs type) and organic mound springs (Three Springs region) TECs, was converted to an A class reserve vested with the Conservation Commission.

Continuing vegetation surveys and photo point monitoring of a burnt area of the vulnerable TEC plant assemblages of the Koolanooka System was carried out and a hydrological investigation of the vulnerable 'natural organic saline seeps fed by artesian waters of the Avon Botanical District' TEC was completed.

Currently eight community volunteers assist with the management and monitoring of eleven TECs, under the 'Adopt a TEC Program', initiated to encourage greater community participation in recovery actions for

threatened ecological communities. Two TEC projects funded under NHT were completed. One was to identify and conserve TECs in the rangelands and the other involved implementing interim recovery plans for critically endangered communities.

Interim Recovery Plans

Interim Recovery Plans (IRPs) are mostly written for critically endangered species and ecological communities in order to prescribe urgent recovery actions needed to address the threatening processes most affecting their ongoing survival. Since the last Annual Report, 25 IRPs were approved by the Director of Nature Conservation, including 21 for threatened flora and four for threatened ecological communities.

Flora IRPs approved were:

Caladenia hoffmanii subsp. *graniticola*
Eremophila pinnatifida
Eremophila subteretifolia,
Dryandra mucronulata subsp. *retrorsa*
Eremophila viscida
Gastrolobium hamulosum
Goodenia integerrima
Grevillea althoferorum
Grevillea batrachioides
Grevillea elongata
Grevillea humifusa
Grevillea pythara
Lambertia echinata subsp. *occidentalis*
Lambertia orbifolia subsp. *orbifolia*

Lasiopetalum pterocarpum
Muehlenbeckia horrida subsp. *retrorsa*
Myoporum turbinatum
Rhizanthella gardneri
Synaphea quartzitica
Thomasia sp. Green Hill
Verticordia staminosa subsp. *cylindracea* var. *erecta*

The four IRPs for TEC were for the Lake Richmond thrombolite community, the Yanchep caves root mat community and Crystal Cave Crangonyctoid, plant assemblages of bentonite lake beds of the Watheroo-Marchagee region and the Lesueur/Comallo floristic community.

Information Posters

Information posters were produced for 10 flora species as follows:

Caladenia hoffmanii subsp. *graniticola*
Drakaea confluens
Eremophila lactea
Eremophila pinnatifida
Eremophila verticillata
Eremophila viscida
Gyrostemon reticulatus
Lambertia orbifolia subsp. *orbifolia*
Rhizanthella gardneri
Verticordia staminosa subsp. *cylindracea* var. *erecta*

The two TECs featured in such posters are the invertebrate communities of caves and organic mound springs of the Swan Coastal Plain.

Translocation proposals approved for threatened flora and fauna 2002–2003

Species	Source and destination
Bilby	From captive breeding facilities at Denham to Francois Peron National Park, return to Dryandra Forest.
Burrowing Bettong	Heirisson Prong, (Shark Bay WA) to Faure Island (Shark Bay WA).
Dibbler	Re-introduction from Perth Zoo to proposed Peniup Reserve.
Djoongari	Perth Zoo to Faure Island.
<i>Dryandra montana</i>	Seed from Stirling Range to seed orchard.
<i>Eremophila verticillata</i>	Seed from wild to unallocated Crown land.
<i>Grevillea batrachioides</i>	Seed and cuttings from plants in wild, raised at Botanic Gardens and Parks Authority (BGPA) and translocated to an area within the Lesueur National Park.
<i>Grevillea humifusa</i>	Seedlings raised at BGPA from seed sourced from wild and introduced to Coomallo Nature Reserve.
Noisy Scrub-bird	From Two Peoples Bay Nature Reserve to State forest near Harvey.
Numbat	From Perth Zoo to Stirling Range National Park.
Quenda	From development sites in Perth metropolitan area to Avon Valley National Park.
Shark Bay Mouse	Perth Zoo to Faure Island (Shark Bay WA).
Tammar Wallabies	From Tutanning Nature Reserve to Avon Valley National Park and Walyunga National Park.
Western Swamp Tortoise	Perth Zoo to Mogumber and Ellen Brook Nature Reserve.
Woylie	From Karakamia Sanctuary to Walyunga National Park

Performance Measures

Output 1

	2002–2003 Target	2002–2003 Actual	Explanation of significant variation
Quantity			
Nature Conservation area managed (hectares)	24.5 million	24.7 million	
Quality			
Threatened species	538	538	
Change in number of	+36	+36	
Timeliness			
Completion of management plans within specified timeframes	100%	100%	
Cost			
Cost per hectare managed	\$2.58	\$2.76	

Output 2:

—Sustainable Forest Management—

HIGHLIGHTS

- **Implementation of the State Government's Protecting our old-growth forests policy.**
- **Preparation of the Draft Forest Management Plan for the Conservation Commission of Western Australia.**
- **Formulation of indicative boundaries for new conservation reserves proposed in the State Government's forest policy.**
- **Completion of a suite of major projects on computer systems development, biometric modelling and data updates to improve timber yield estimation.**
- **Provision of data and analysis for a review of sustained timber yields within the context of ecologically sustainable forest management.**
- **Provision of integrated forest management, monitoring and planning services.**

Outcome achieved by:

The development and implementation of management plans and systems for sustainable management of State forest and timber reserves.

Output Description

The sustainable management of State forests and timber reserves while maintaining or enhancing nature conservation, water, recreation, landscape and other values in the long-term, and encouraging public awareness, understanding and support for sustainable forest management, services and policies.

Consistent with the statutory purpose of State forests and timber reserves as defined in the Conservation and Land

Management Act 1984 (CALM Act), this Output provides for the management of the forests and timber reserves on an ecologically sustainable basis, including:

- implementing the *Protecting our old-growth forests* and other Government policies;
- ensuring the values of multiple use forests and woodlands are maintained on an ecologically sustainable basis; and
- providing for the harvesting, regeneration and growth of forest products from State forest and timber reserves in accordance with approved forest management plans and guided by the principles of ecologically sustainable forest management.

The Sustainable Forest Management Output addresses five key areas of activity:

1. Implementation of approved forest management plans and Government policies and programs.
2. Inventory and assessment of forest resources.
3. Maintenance and enhancement of biodiversity and other values.
4. Provision for harvesting, regeneration and growth of forest products in accordance with approved management plans and guided by the principles of ecologically sustainable forest management.
5. Partnerships.

Working Arrangements

Work to consolidate the working arrangements between CALM and the Forest Products Commission (FPC)

continued following the separation of the commercial timber production functions of the Department from its conservation functions in November 2000. This includes the identification of key planning and information services provided by the Sustainable Forest Management (SFM) Division to a range of clients, including the FPC, other branches of the Department and external agencies.

IMPLEMENTATION OF APPROVED FOREST MANAGEMENT PLANS AND GOVERNMENT POLICIES AND PROGRAMS

Protecting our old-growth forests policy

As part of its forest policy, the State Government committed to create 30 new national parks, including the 12 new national parks proposed under the Regional Forest Agreement (RFA), and two new conservation parks. The Department is progressively undertaking work on the indicative boundaries for the new conservation reserves. During the year, indicative boundaries were prepared for public release for the proposed Boorara-Gardner, Greater Dordagup, Jane, Butler, Hilliger, Milyeannup, Blackwood River and Boyndaminup national parks.

The indicative boundaries for the proposed Greater Preston, Greater Beedelup, Greater Kingston, Boorara-Gardner, Greater Dordagup, Jane, Wellington, Butler, Hilliger, Milyeannup, Blackwood River and Boyndaminup national parks were advertised for a two-month comment period during the year, as part of a consultation process developed for new

parks as a result of the *Protecting our old-growth forests* policy. Mapping to support this process was undertaken and a review of submissions commenced. A stakeholders reference group considered the indicative boundaries for the proposed Walpole Wilderness Area, and recommendations from the group were referred to the Minister for the Environment.

Community forest inspection program

During the year the Minister for the Environment announced a pilot program of community forest inspections designed to provide representatives of the community with the opportunity of inspecting first-hand the systems and processes in place to manage sustainably the harvest of native timbers from State forest, and note compliance with existing management systems and processes. The first inspection, involving members of the voluntary conservation movement, and staff from the FPC, the Conservation Commission and the Department, took place in harvest coupes in the Wellington District in April 2003.

New Forest Management Plan

The Forest Management Plan 1994–2003 will expire on 31 December 2003. Work by the Department continued during the year on the development of a new 10-year forest management plan for the Conservation Commission.

The Draft Forest Management Plan was released in August 2002 for a two-month public comment period. A total of 5,602 submissions was received, comprising 914 individual submissions, and 26 pro formas representing 4,688 individuals. Submissions received have been taken into account during the formulation of the proposed Forest Management Plan. The principles of ecologically sustainable forest management, as described in the *CALM Act*, have guided development of the objectives and actions in the new plan, consistent with the *Protecting our old-growth*

forests policy commitment to manage the forests in line with the principles of ecologically sustainable forest management.

An update of the Department's silviculture guidelines for the jarrah, karri and wandoo forests, with an emphasis on specific practices to be applied in the field, continued during the year.

Forest Management Plan 1994–2003 Progress and Compliance Report

The final report to the Environmental Protection Authority in respect of Ministerial Conditions on the 1994–2003 Forest Management Plan for 2000, 2001 and the first six months of 2002 was completed and submitted.

Implementation of the Regional Forest Agreement (RFA)

The RFA included a number of commitments by the State that are the responsibility of the Department. Although a number of commitments were completed, the intended timelines for implementation of RFA commitments were altered as a result of a series of policy changes. The following commitments were completed during the year:

- addressing improvements related to the calculation of sustained timber yields;
- external review of the sustained yield estimating process; and
- updating processes to allow more efficient consideration of social, economic and environmental implications in the development, approval and ongoing audit of compliance with forest management plans.

Progress was also made for the following commitments:

- development of an environmental management system conforming to international standards;
- assessment, data-basing and integration of cultural heritage resources into forest planning;

- preparation of a forest management plan to implement the commitments in the RFA; and
- development of a set of sustainability indicators.

INVENTORY AND ASSESSMENT OF FOREST RESOURCES

Throughout the year the Forest Management Branch of the SFM Division performed a diversity of tasks relating to the maintenance, analysis and provision of datasets for the southwest forests and softwood plantations on behalf of the FPC, other Divisions and external clients. This included:

- the provision of data, analysis, technical and policy advice to various committees, review panels, independent consultants and Government;
- the ongoing maintenance of inventory and growth datasets, monitoring of harvesting data, update of bluegum growth data measurements on behalf of the FPC and industry, and establishment of permanent sample plots;
- the maintenance of spatial reference sets for the condition and history of management activities for southwest forests, including the extension of databases summarising the occurrence of *Phytophthora cinnamomi* on lands vested in the Conservation Commission and prescribed fire extent;
- assistance with mapping the density and health of tuart forest overstorey and vegetation for evaluation of conservation priorities;
- survey and demarcation of sensitive boundaries (e.g. conservation reserves) adjacent to harvest areas on behalf of the FPC;
- the design and execution of inventories and resource mapping in FPC softwood plantations to assess sustainability, audit requirements and to assist harvest planning and asset valuation;

- validation of sharefarm contract areas, plantation survey for the 2002 planting season and stratification of timber resource by productivity classes on some plantations were undertaken on behalf of the FPC; and
- services such as resource inventory, photogrammetry, GPS survey and *Phytophthora cinnamomi* disease mapping services were also provided to other Divisions within the Department, Government departments, private companies and individuals on a recoup basis.

Specific projects were undertaken to progress the estimation of sustained timber yields and the preparation of analyses for the proposed Forest Management Plan. Major computer systems development, data updates and biometric modelling projects were completed to provide a major refinement of the basis for the calculation of sustained timber yields. Some of these projects are outlined below.

Rate of spread of dieback

Field surveys were undertaken to quantify the annual rates of spread of *Phytophthora cinnamomi* (the pathogen that causes dieback) in a range of landforms and soil types. The results were used to predict the future spread of *Phytophthora cinnamomi* and determine its likely impact on the growth rate and future yields of timber. This was used to inform the sustained yield calculations for the proposed Forest Management Plan.

Restratification of the forest

The jarrah and karri forest estates were restratified to better reflect the geographic, silvicultural and site variation relevant to current and potential timber yields.

New inventory of the karri forest

A new inventory of approximately 15,000 hectares of geographically dispersed karri forest (in areas that

remain available for timber production following the cessation of harvesting in old-growth forests) was completed during the year. The purpose of the inventory was to obtain a more reliable estimate of the standing volume of timber.

Computer systems and yield modelling enhancement

A new computer system was developed to improve the estimation of the timber yields arising from areas of forest harvested to any silvicultural practice. Models used to project the growth and yield of stands were extended, while new yield scheduling tools were developed to accommodate the complexity of settings required to be modelled for the new Forest Management Plan.

MAINTENANCE AND ENHANCEMENT OF BIODIVERSITY AND OTHER VALUES OF FORESTS

Activities conducted by SFM Division incorporate measures to sustain or where possible enhance biodiversity and other forest values. In particular, staff in the Division deliver information services and the mapping of dieback occurrence for disease management and are responsible for setting standards for prescribed burns for silvicultural objectives that incorporate biodiversity requirements. Other SFM outcomes are delivered through Regional Services Division.

Disease in native forests

The mapping of the presence of *Phytophthora cinnamomi* (dieback) symptoms was carried out by accredited interpreters to determine protectable areas and specify hygiene requirements for activities likely to result in soil movement on lands managed by the Department. Approximately 27,710 hectares were mapped to assist the planning of roading and harvesting operations undertaken by the FPC. This included 8,300 hectares of previous mapping

that was rechecked for further spread. Mapping of the occurrence of dieback and hygiene planning was also undertaken by accredited interpreters on a further 160 hectares for the Parks and Visitor Services Output, 540 hectares for the Nature Conservation Output, 1,390 hectares for the SFM Output, and for external requests.

To facilitate mapping for conservation management, aerial photography was acquired over approximately 4,500 hectares during the year.

Environmental Management System

Work on an Environmental Management System for the SFM Output of the Department continued during the year, with limited progress being made due to the need to focus on development of the new forest management plan.

PROVISION FOR HARVESTING, REGENERATION AND GROWTH OF FOREST PRODUCTS IN ACCORDANCE WITH APPROVED MANAGEMENT PLANS AND GUIDED BY THE PRINCIPLES OF ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT

Monitoring of timber harvesting and treatment activities

The monitoring of harvesting, silvicultural treatments and land disturbance activities carried out by the FPC or other organisations was undertaken by Forest Management Branch during the year.

In 2002, 13,260 hectares of jarrah forest were harvested with the following silvicultural or management objectives:

	Hectares
Thinning	1,610
Release of regeneration	1,050
Establishment of regeneration	6,500
Single tree selection	1,450
Selective	2,260
Other (mining and utilities)	390
Total	13,260

An additional 30 hectares of jarrah/wandoo forest was harvested.

Silvicultural objectives for approximately 320 hectares of the above area were achieved through the commercial harvesting operations. Silvicultural objectives for a further 5,330 hectares harvested in this or previous years were achieved by follow-up treatment during 2002.

In 2002, 700 hectares of karri forest were clearfelled or partially cut, and 350 hectares were thinned. Regeneration was completed on 1,240 hectares harvested in either this or previous years.

Review of sustained yield within the context of ecologically sustainable forest management

Work continued by an independent expert panel, chaired by Professor Ian Ferguson from the University of Melbourne, to assess the management practices, data and calculation methods that estimate the sustained yield of timber for their conformity with the principles of ecologically sustainable forest management. The third and final stage of the project required assessment of whether proposals associated with the calculation of sustained yield in the new forest management plan conform to these principles. Presentations were made to the panel of systems, tools and data used to calculate sustained timber yields from native forest when it reconvened in May 2003. The panel's report for the final stage of the review will assist the EPA in developing its recommendations to the Minister for the Environment for the new plan, and will be published in the 2003–2004 financial year.

Regional indicative harvest plans

The Division was involved in the preparation of the 2003 Indicative Timber Harvest Plan, which was released in December 2002 and identified areas for detailed planning and coupe design. The plan, which included parts of 43 forest blocks,

Silviculture

The Jarrah Forest

Harvesting in the jarrah forest is undertaken using a variety of silvicultural objectives (silviculture is the art and science of establishing and tending forests). Where there is a predominance of vigorously growing trees, the stand is thinned; where this is not the case the stands are harvested with the object of regenerating them. This is achieved either by harvesting in a way that will release existing lignotubers to grow unimpeded into saplings; or, where there are inadequate lignotubers, harvesting to create a shelterwood under which seedlings are established. The proportion of each area that is harvested to each of these objectives, and the degree of intermixing, vary according to the existing stand structure and condition.

In many areas the desirable silvicultural objective is achieved completely or nearly completely by the harvesting operation itself. A proportion of the remainder is completed by silvicultural tending operations one or two years after harvesting. In more marginal forest types harvesting is done by selective cutting. In some areas harvesting precedes clearing for mining or the construction of public utilities such as reservoirs or

power lines. Cleared areas are not regenerated immediately but where possible are rehabilitated later.

The Karri Forest

Karri forest harvesting is also dependent on the structure and age of the existing forest, though it is less complex than jarrah harvesting. Patches of even-aged and vigorously growing forest which are greater than two hectares in size are identified for thinning. When the stand is old enough to yield saleable products, it is thinned to an appropriate density by commercial harvesting. No further tending is necessary.

Mature forests and forests of mixed structure created by past logging activities are harvested under a clearfelling system. Regeneration following harvesting is achieved within the following year or two by means of temporarily retained seed trees, by planting with nursery raised seedlings, or by broadcast seeding. Seed trees are the preferred method, but planting is used in the years when there are inadequate seed crops available in the karri forest. Broadcast seeding is only used to a limited extent.

formed the basis for regional consultation and was prepared for a one-year rather than three-year period, so as not to pre-empt land use decisions, sustained yield and public consultation processes that will result from the development of the new Forest Management Plan.

FORESTCHECK

The FORESTCHECK monitoring initiative was implemented for a second year with a further nine sampling grids established in jarrah forest. The purpose of FORESTCHECK is to provide forest managers with timely information about the status of forest ecosystems and the effects of management activities and natural climatic variation on a broad range of

organisms. Such information supports compliance with Ministerial Conditions attached to implementation of the Forest Management Plan 1994–2003. Sites established this year were located north of Collie in the Wellington District and included areas of forest harvested to gap and shelterwood silvicultural treatments, as well as three sites in previously unharvested forest. A report of the results from FORESTCHECK monitoring undertaken in 2001–2002 is available on the Department's website, NatureBase.

Sustainable forest management and refinement of silvicultural practices

During spring 2002, post-harvest burning was undertaken in two

experimental catchments east of Dwellingup. These catchments form part of a study of the hydrologic impacts of timber harvesting and associated silvicultural treatments in the intermediate rainfall zone (900-1100 mm/annum) of the northern jarrah forest. This study is designed to support compliance with Ministerial conditions attached to implementation of the Forest Management Plan 1994–2003. Stream-flow and groundwater levels are being compared between an undisturbed control catchment and catchments subject to timber harvesting under the current silvicultural prescription, and under a more intensive prescription that resulted in a less densely stocked forest. To date, only small changes in groundwater levels have been observed. However potential groundwater recharge was limited by lower than average winter rainfall in recent years.

A series of studies of the effects of forest management practices on soil properties was finalised during 2002. This research was partially funded through the Forest and Wood Products Research and Development Corporation as part of the Commonwealth Government Wood and Paper Industry Strategy. Studies investigated the effect of fire frequency on soil organic matter in jarrah and karri forests, soil disturbance during forest harvesting, and the effects of soil compaction on tree growth.

Studies of the life-cycle of gumleaf skeletoniser (*Uraba lugens*) confirmed that past outbreaks in the southern jarrah forest may have in part been initiated by consecutive years of warm winters which resulted in a change from one to two generations of insects per year.

PARTNERSHIPS

Throughout the year effective communication and interaction continued with:

- the community and stakeholders;
- other State agencies and authorities; and
- Commonwealth agencies.

The SFM Division contributed to the work of the Primary Industries Ministerial Council, the Natural Resource Management Ministerial Council, the National Forest Inventory and to other national forums on ecologically sustainable forest management. This included the provision of technical expertise to the development of a Continental Forest Monitoring Framework, private native forest inventory, and national initiatives in carbon accounting.

Performance Measures

Output 2

	2002–2003 Target	2002–2003 Actual	Explanation of significant variation
Quantity			
Forest area managed (hectares)	1,475,000	1,262,000	
Quality			
Compliance with management	>95%	88%	The figure represents the unweighted average of the level of compliance with the measures of the Key Effectiveness Indicator reported in the Performance Information section of this report.
Timeliness			
Satisfaction of programmed management	100%	100%	
Cost			
Average cost per hectare managed	\$19.75	\$25.83	

Output 4:

—Parks and Visitor Services—

HIGHLIGHTS

- **Considerable progress in the identification of boundaries, management planning and visitor facilities to service the new southwest national parks as proposed under the Government's *Protecting our old-growth forests* policy.**
- **Communication strategy and interpretation plans for Perth's Regional Parks network and the Shark Bay World Heritage Area completed.**
- **Purnululu National Park nominated for inscription on the list of World Heritage Properties.**
- **Final management plans released for Yellagonga Regional Park and Carnac Island Nature Reserve and draft management plan released for Woodman Point Regional Park.**
- **5,160 volunteers contributed 240,000 hours to help the Department care for the environment.**
- **Commencement of a study to assess the economic value of recreation and tourism in the State's conservation protected areas.**
- **First stage of the Munda Biddi off-road cycling trail between Mundaring and Dwellingup completed.**
- **Extensive involvement and consultation with Indigenous groups and communities regarding joint management and current operations.**

Outcome achieved by:

Community enjoyment of wildlife, land and waters without compromising conservation and other management objectives.

Output description

Dealing with public involvement, visitation and appreciation of the natural environment on lands and waters managed by the Department, including preparing and implementing management and recreation site development plans; providing, managing and maintaining appropriate access, recreation opportunities and visitor facilities; protecting natural areas, visitors and facilities from wildfire; training Departmental staff and volunteers; working with local tourist bureaux and commercial tour operators; involving Aboriginal people in park management and the provision of visitor facilities and services; providing visitor information and designing and initiating educational and interpretive activity programs which enrich visitor experience and help develop greater community awareness and support for parks, natural areas, nature-based tourism and recreation services and policies.

The output performance is reported in eight key areas:

1. Planning for management;
2. Acquisition and administration of protected areas;
3. Park presentation and resource protection;
4. Visitor communication and management;
5. Community involvement;
6. Liaising and working with Indigenous people;
7. Business management; and
8. Legislation and policy for parks and visitor services.

There are several other significant projects, such as the Bibbulmun Track

and Munda Biddi Trail, Regional Parks and Regional Services that merit reporting separately.

PLANNING FOR MANAGEMENT

Section 33 of the *Conservation and Land Management Act 1984* requires the Department to manage all land to which the Act applies according to a 'management plan'. A management plan contains a statement of policies or guidelines proposed to be followed, as well as a summary of the proposed operations. The *CALM Act* also specifies that the public be given an opportunity to contribute to the content of management plans. The Department achieves this through public and stakeholder workshops and meetings, advisory committees, newsletters and inviting comments on draft plans.

Priorities for plan preparation are guided by the assessment of each proposed management plan against the delivery of strategies outlined in the Department's Corporate Plan (2002–2005). Priorities are determined for a three-year period but reviewed annually by the Conservation Commission and the Marine Parks and Reserves Authority. Management plans are prepared for a period of 10 years after which they may be replaced by a new management plan.

The Minister for the Environment approved two management plans during 2002–2003, bringing the total number of management plans approved under the *CALM Act* to 46. A further 30 management plans are currently in various stages of completion. In addition to assisting to determine priorities for the preparation of management plans, the Conservation

Commission of Western Australia revises and approves plans before submitting them to the Minister. The Commission is also responsible for auditing the Department's performance in implementing management plans.

The Marine Parks and Reserves Authority has a similar role for marine reserves (see Output 1 Marine Conservation).

During 2002–2003, management plans for Yellagonga Regional Park, Carnac Island and a draft management plan

for Woodman Point Regional Park were completed and approved by the Minister for the Environment. Approximately 10 public or stakeholder meetings and 74 advisory committee meetings were held to facilitate community input into the planning process (excluding marine reserves – see Output 1 Marine Conservation). 'Have Your Say' brochures were also released to facilitate input into management plans being prepared for Lane Poole Reserve and the Walpole Wilderness Area.

The 'Managing Our Parks and Reserves' NatureBase webpages features facilities for electronic public submissions, and downloadable 'Issues Papers', 'Have Your Say' brochures, management plans and analysis of public submission reports.

The two tables list the area of each tenure category managed by the Department for which plans are completed, and the status of plans in preparation or already approved as at 30 June 2003.

Management Plans as at 30 June 2003

Final Management Plans (completed and approved)	Region	Effective from
Mooradung Nature Reserve	Swan	21/2/86
Nature Reserves in the Shire of Wyalkatchem	Wheatbelt	21/2/86
Forrestdale Lake Nature Reserve (5 year term)	Swan	10/7/87
Nature Reserves in the Shire of York-Northam	Swan	10/7/87
Shannon and D'Entrecasteaux National Parks	Warren	8/1/88
Benger Swamp Nature Reserve (5 year term)	South West	12/2/88
Northern Forest Region	Swan	12/2/88
Central Forest Region	South West	12/2/88
Southern Forest Region	Warren	12/2/88
Leeuwin-Naturaliste National Park	South West	21/4/89
Yanchep National Park	Swan	29/9/89
Ningaloo Marine Park	Pilbara	24/11/89
Waroona Reservoir and Catchment Area	South West	16/3/90
Logue Brook Reservoir and Catchment Area	South West	16/3/90
Cape Range National Park	Pilbara	23/3/90
Dampier Archipelago Nature Reserves	Pilbara	31/8/90
Lane Poole Reserve	Swan, South West	14/12/90
Fitzgerald River National Park	South Coast	19/7/91
South Coast Region	South Coast	13/3/92
Marmion Marine Park	Swan	15/5/92
Walpole-Nornalup National Park	Warren	3/7/92
Shoalwater Islands Nature Reserves	Swan	20/10/92
Matilda Bay Reserve	Swan	21/5/93
John Forrest National Park	Swan	19/8/94
Goldfields Region	Goldfields	24/2/95
West Cape Howe National Park	South Coast	4/8/95
Yalgorup National Park	Swan	15/8/95
Lesueur National Park – Coomallo Nature Reserve	Midwest	13/10/95
Dryandra Woodland	Wheatbelt	14/11/95
Purnululu National Park and Conservation Reserve	Kimberley	5/3/96
Two Peoples Bay Nature Reserve	South Coast	7/6/96
Wanjarri Nature Reserve	Goldfields	2/7/96
Shark Bay Marine Reserves	Midwest	7/3/97
Canning River Regional Park	Swan	5/12/97
Nambung National Park, Wanagarren, Nilgen and Southern Beekeepers Nature Reserves.	Midwest	11/9/98
Leschenault Peninsula Conservation Park	South West	8/1/99
Esperance Lakes Nature Reserves	South Coast	11/5/99
Karijini National Park	Pilbara	15/6/99
Stirling Range and Porongurup National Parks	South Coast	3/12/99
Swan Estuary Marine Park and Adjacent Nature Reserves	Swan	7/4/00
Jurabi, Bundegi Coastal Parks and Muiron Islands	Pilbara	25/08/00
Serpentine National Park	Swan	3/10/00
Shark Bay Terrestrial Reserves	Midwest	3/10/00
Rowles Lagoon Conservation Park and Clear and Muddy Lakes Nature Reserve	Goldfields	19/1/01
Carnac Island Nature Reserve	Swan	Approved 13/05/03 – Awaiting Gazettal
Yellagonga Regional Park	Swan	Approved 28/06/03 – Awaiting Gazettal

Management Plans as at 30 June 2003 (continued)

Final Management Plans (being prepared)	Region	Submission Period
Indicative Management Plan for the proposed Jurien Marine Park	Midwest	5/10/00 – 5/1/01
Herdsmen Regional Park	Swan	5/6/01 – 5/9/01
Beeliar Regional Park	Swan	14/11/01 – 14/2/02
Turquoise Coast Islands Nature Reserves	Midwest	19/12/00 – 28/2/02
Woodman Point Regional Park	Swan	30/09/02 – 30/11/02
Draft Management Plans (in preparation)	Region	
Cape Range National Park (Revision)	Pilbara	
Dampier Archipelago	Pilbara	
Indicative Management Plan for the proposed Dampier Archipelago/ Cape Preston Marine Conservation Reserve.	Pilbara	
Darling Range Regional Park	Swan	
Esperance Coastal Parks and Reserves	South Coast	
Forrestdale Lake Nature Reserve	Swan	
Jandakot Regional Park	Swan	
Kalbarri National Park	Midwest	
Kimberley Region	Kimberley	
Lane Poole Reserve	Swan and South West	
Leeuwin Naturaliste Ridge and Scott National Park	South West	
Millstream-Chichester National Park and Mungaroo Range NR	Pilbara	
Indicative Management Plan for the proposed Montebello/ Barrow Islands Marine Conservation Reserve.	Pilbara	
Ningaloo Marine Park Management Plan and Indicative Management Plan for proposed extensions.	Pilbara	
Rockingham Lakes Regional Park	Swan	
Rowley Shoals Marine Park Management Plan and Indicative Management Plan for proposed extensions	Kimberley	
Shannon-D'Entrecasteaux National Park (Revision)	Warren	
Shoalwater Islands Marine Park Management Plan	Swan	
St Johns Brook Conservation Park	South West	
Thomsons Lake Nature Reserve	Swan	
Walpole Wilderness	Warren	
Wellington Forest National Park	South West	
Wheatbelt Region	Wheatbelt	
Yanchep and Neerabup National Parks and Neerabup Nature Reserve	Swan	

Areas covered by Management Plans as at 30 June 2003

Tenure classification	Area covered by plan (ha)	Total tenure area (ha)	% covered
National Park	1,751,553	5,095,378	34.4
Nature Reserve	361,050	10,827,256	3.3
Marine Reserve	1,115,125	1,145,940	97.3
Other Recreation/ Conservation Reserves	93,710	850,196	11.0
Total CALM Conservation Estate	3,321,438	17,918,770	18.5

Note: Figures exclude some Regional Park management plan areas.

ACQUISITION AND ADMINISTRATION OF PROTECTED AREAS

In addition to the Department's pastoral lands acquisition program (see further on), other land is acquired as a result of being identified in management plans, State Government reports and Departmental studies and research. The Department of Land Administration also refers Crown lands to the Department for consideration as possible additions to the conservation estate. Some of these lands prove to have high conservation value and are converted to conservation reserves.

Lands acquired include both Crown and private lands. The conversion of Crown lands to conservation reserves involves seeking the agreement of interested bodies, including local government, the Department of Industry and Resources and the Water and Rivers Commission. Native Title requirements are also considered. In 2002-2003 significant areas of land were added to the conservation estate.

The Department also manages a range of land, tenure and estate management issues affecting the State's conservation estate, including State forest. These matters include additions to the estate, proposed excisions, for example for the construction or widening of roads, and input into subdivision proposals that may impact on reserved lands.

To assist in the management and conservation of Western Australia's protected areas, the Department licenses commercial tourism activities in accordance with section 101 of the *CALM Act*. The issuing of licences enables the Department to monitor and manage visitor access and use of lands and waters vested in the Conservation Commission and Marine Parks and Reserves Authority.

In January 2003 the process for issuing commercial activity licences was significantly modified using licensing provisions available in the *CALM Act*.

The Act allows for the pre-approval of some forms of licences. The Conservation Commission of Western Australia and the Marine Parks and Reserves Authority agreed to endorse all licence applications and renewals applications where the proposed activity for a park is consistent with the Terrestrial and Marine Tour Operator Handbooks. The Minister for the Environment agreed to approve the same. As a consequence of this, the turnaround time for the majority of licences was reduced from eight weeks to seven days, improving licence management from both administration and licence holder perspectives.

As at 30 June 2003, 405 commercial activity licences were in issue¹ for activities in marine and terrestrial reserves. This is down from 477 licences in issue at the end of 2001-2002. This is due largely to the downturn in the tourism industry related to world events.

The Department of Conservation and Land Management has 169 current formal agreements for a wide range of purposes. The majority of such agreements are in the form of leases for uses including agriculture, utilities, rubbish disposal, gravel extraction, tourism and recreation. Other arrangements include permits for sawmills, and licences for other activities where exclusive use is not appropriate, such as agencies co-locating on Departmental communication towers.

During the year, ten agreements were finalised. These included a services contract for Mt Hart, a licence for a campground in Karijini National Park, and leases for Gloucester Lodge Museum within the Yanchep National Park and the Eyre Bird Observatory. Two leases were formally amended by Deed, and West Coast Radio had their lease for a broadcasting tower extended. A Deed of Assignment was finalised relating to the water supply for Nyamup Holiday Village. A new

licence was granted to Vodafone to allow for co-location on a Departmental tower, and a new lease for a sub-division entrance statement was granted over a small portion of State forest.

Separate to the arrangements discussed above, the Department issued 50 interim agreements to allow for certain activities to continue on lands managed by the Department.

Other matters progressed during the year include leases for communication facilities at Moir Hill in the Stirling Range National Park and at Mt William, and an extension of the lease for Coalmine Beach Caravan Park. Progress was also made on a number of other leasing arrangements including a new lease for the Serpentine Dam Kiosk.

During the year, policy relating to leases for the extraction of basic raw materials was amended, with any future access by shires or Main Roads Western Australia being under the provisions of either the *Local Government Act 1995* or the *Mining Act 1978*. Hence, the Department is progressively cancelling such leases.

With respect to policy issues, the Department consulted with the controlling bodies (Conservation Commission of Western Australia and the Marine Parks and Reserves Authority) in relation to the review of the Department's Recreation, Tourism and Visitor Services policy. A review of the Department's policy on Beekeeping on Public Land also progressed.

At the year's end there were 3,046 current apiary site permits issued over all Crown lands within the State. Of these 990 sites are located on State forest, 230 on nature reserves, 220 on national parks and 95 on timber reserves.

The Beekeeping Consultative

¹ "in issue" include current licences with an expiry date falling after 30 June 2003, licence renewal applications and new licence applications.

Committee met twice during the year to discuss and progress a range of issues that affect beekeepers' access to Crown lands.

PARK PRESENTATION AND RESOURCE PROTECTION

The Department aims to achieve high quality visitor services and facilities that are planned, designed, developed and properly managed in a sustainable way.

Master plans, site development and/or concept plans were completed for many projects around the State. These plans are prepared to assist with funding applications and to ensure capital works projects are undertaken according to plan. Some examples include plans for new access into Serpentine Falls Pool in Serpentine National Park, upgrade of a day use area at Castle Rock in Porongurup National Park, a redevelopment of the camping area at Thomas River in Cape Arid National Park, renewal of the lease for Lions Dryandra Village, protection of values at Kennedy Range National Park, a new lookout on the proposed Lancelin-Cervantes coastal road, redeveloped day use area at Belvidere in Leschenault Conservation Park and a new turtle interpretive facility in Jurabi Coastal Park near Exmouth.

Design and/or construction documentation drawings were prepared for many projects, including a new entry station for Cape Range National Park, new turtle interpretive deck in Jurabi Coastal Park, small structures for camping on the Munda Biddi Trail, picnic shelters in John Forrest National Park and toilets and shelter at Belvidere in Leschenault Conservation Park. Other structures such as boardwalks, steps and lookouts were designed and prepared for construction at Four Mile and Barren Beach in Fitzgerald River National Park and Salmon Holes in Torndirrup National Park.

Planning, training and design advice

was provided as needed. Informal training in recreation and tourism planning and design was provided to Departmental staff on a project basis throughout the year. Staff participated in formal training in project management. Advice was given on numerous projects associated with the Department and representation occurred on working groups including the Carnarvon Coastal Strategy and the Coastwest Technical Assessment Group.

Concept, site and documentation plans were prepared as part of the Government's *Protecting our old-growth forests* policy. Projects included new day use areas at Knolls and Coalmine in Walpole-Nornalup National Park, landscape works at Perup Ecology Centre east of Manjimup, planning for renovation of recreation facilities, including a new deck under the oak tree, in Fred Jacoby Park, new day use facilities at Mt Observation and South Ledge in the Perth Hills, day use facilities at Honeymoon Pool in the proposed Wellington National Park, new roading and day use facilities at Wellington Dam, and a bush tucker garden at Wellington Forest Discovery Centre.

Visual impact assessment, recommendations, guidelines and specialist advice was provided for a number of proposals throughout the year. Other impacts commented on included telecommunications towers, mining, gravel extraction, infrastructure development, housing and tourism developments.

Visual landscape management processes and operational guidelines for a wide range of impact and development types continue to be developed between the Department, the Department for Planning and Infrastructure, Main Roads Western Australia and the Water and Rivers Commission.

Training programs and publications

are being considered including the development of awareness training and lectures. Delivery will commence next financial year.

VISITOR COMMUNICATION AND MANAGEMENT

Interpretive Planning

Visitor communication planning is an essential component of the Department's management planning process. Officers provided interpretive perspectives into the preparation of management plans, recreation site development plans and interpretive projects.

Of particular note was the completion of a communication strategy and interpretation plans for Perth's Regional Parks network and the Shark Bay World Heritage Area. Interpretive planning for the Warren Region was undertaken with emphasis on the promotion of key drive trails, and the development of a methodology for a nature-based recreation-planning framework. An interpretive planning workshop was held at Kensington to present and discuss the results of these projects, empowering communication planners not only within the Department, but also from a wide range of other agencies and community groups with a greater understanding of the planning process.

The Government's *Protecting our old-growth forests* policy funded a number of projects within a broad interpretive communication strategy promoting the value and biodiversity of southwest forests. Two key projects, a multimedia exhibit for the Valley of the Giants kiosk and a guide to interpreting the southwest, *Your Essential Partner*, are nearing completion.

Interpretive Design

The Unit's Sign Design Studio continued to meet regional needs for signs and displays in managing visitors to estate managed by the Department.

Designs were prepared for more than 140 projects.

Interpretive products of particular note were: the Lane Poole Falls and Mt Chudalup trails; Honeymoon Pool; Leschenault Conservation Park; Alfred Cove Nature Reserve; Monkey Mia; Stokes Inlet, Cape Arid and Peak Charles national parks; Helms Arboretum; and the Esperance District office display. Three new interpretive shelters were added to the Bibbulmun Track, and directional and cautionary signage was developed for the first stage of the Munda Biddi Trail. Signage for two interpretive walks on the Golden Pipeline drive trail was designed for the National Trust (WA). Interpretive displays at the Monkey Mia Visitor Centre were enhanced with the addition of Indigenous cultural components. Risk and dieback signs continued to be in strong demand as part of the Department's risk management program. Visitor fee signs at Pemberton were upgraded.

Interpretive sign projects at Totadgin Conservation Park and Boyagin Nature Reserve resulted in the establishment of strong relationships with Indigenous communities in the Wheatbelt Region. Indigenous elders conveyed very positive feedback about the ability of interpretive staff to work effectively and with sensitivity on the interpretation of significant cultural sites. The successful completion of interpretive sign projects in the Esperance District stimulated requests from local Indigenous groups for similar projects to be undertaken at other sites on Department estate. Through a number of ongoing interpretive projects including Monkey Mia, Esperance and Goldfields, Unit staff continued to develop sound relationships with Indigenous communities across the State.

Professional advice was given to a number of shires and community groups towards assisting with grants applications and developing interpretive facilities, services and sign

products. Concept planning for an environment centre within the Shire of Dalwallinu and consultation with the National Trust (WA) on the Golden Pipeline Project at Mundaring Weir is ongoing.

Guided Interpretive Activity Programs

Interpretive activity programs are conducted in many parks and reserves throughout Western Australia. Participants enjoy an enriched experience while learning to support sound management of our heritage. Regular activity programs attract more than 300,000 participants. Major interpretive activity programs are at Yanchep National Park, The Hills Forest Discovery Centre, Perth Observatory and Penguin Island in the metropolitan area, at Geikie Gorge, Mirima and Purnululu national parks in the Kimberley, Karijini and Millstream-Chichester national parks in the Pilbara, Monkey Mia in the mid-west and the Valley of the Giants in the southwest.

The Government's *Protecting our old-growth forests* policy supported guided activity programs at Walpole, Pemberton, Margaret River and Leeuwin-Naturaliste National Park during school holidays. The Blackwood District's 2002–2003 summer activities program was conducted at Hamelin Bay, Contos Campground and Ellensbrook. Evaluation of the program at Contos found that family groups returned to, or extended, their stay to participate in the guided activities. The success of the program resulted in a strong recommendation from District staff that it be maintained as a priority, particularly during seasonal peak periods in visitation. The Big Bush Heritage Celebration at Wharnclyffe EcoDiscovery Centre in Margaret River on Easter Sunday was successful again this year, attracting more than 300 people. The event, which celebrates the natural and cultural values of the area, involves the local community, employs local guides and benefits local businesses.

Training and Professional Development

The nationally accredited Designing Ecotour Interpretive Activities Workshop was conducted again in collaboration with the University of Notre Dame Australia in Fremantle. Students, Department staff and others interested in ecoguiding participated. Students then presented the Woodman Point Wonders Guided Activities Program in Woodman Point Regional Park, which was promoted with assistance from Nearer to Nature. A training program in interpretive principles and techniques was provided over two days for staff visiting from Kununurra.

Two Advanced Recreation Planning and Management Courses were conducted at Point Walter for Department staff and others. Visitor management through communication strategies of information, interpretation, community involvement, consultation and public participation are a core component of this six-day course.

Staff made presentations at educational events hosted by the Western Australian Museum and Scitech, and at the 2003 Forum Advocating Cultural and Eco-Tourism (FACET) 9th Annual Conference *From the Murchison to the Coast: Our Heritage, Our Legacy*. Staff also presented at *A Seminar on Interpretive and Quality Guiding*. This one-day event was a cooperative venture between the Department, Interpretation Australia Association, Ecotourism Association of Australia and FACET.

Nature-Based Recreation and Tourism Research

The Department's cooperative nature-based recreation and tourism research program with Western Australia's major tertiary institutions continued to grow over the past 12 months. This partnership seeks to utilise and apply the universities' expertise and knowledge in the social and environmental sciences on various

field-based recreation and tourism projects. Students gain valuable field experience and the Department benefits from the results of these studies. There are currently 68 research projects listed on the program (that are either completed, in progress or currently available). The Department's website, NatureBase, has a comprehensive listing of these completed projects as well as potential research topics that can be undertaken by students as honours, masters or PhD studies.

A Research Reference Group facilitates the coordination of students and projects and comprises academic staff from the five State universities as well as Department staff. Dr Sue Moore from Murdoch University's Environmental Science faculty is the chairperson of the Group.

The main functions of the Reference Group are to:

- identify potential research studies of relevance and importance to the planning, development, management, monitoring, marketing and financing of sustainable recreation and tourism opportunities in natural areas;
- act as 'research brokers' by finding and allocating these studies to tertiary students and/or faculty members who are interested in pursuing a particular topic or field of inquiry;
- assist in disseminating the results of these studies to the Department's regions, districts and specialist units and to other interested parties.

The Research Reference Group also hosted a one-day research forum in conjunction with the Department's annual Parks and Visitor Services Workshop. Several students who have either completed or are currently undertaking nature based recreation and tourism research projects presented the results of their field research at this forum.

The Department joined the Cooperative Research Centre for Sustainable Tourism (CRCST) in July 2002. The CRCST is a cooperative research body involving tertiary institutions across Australia, State and Territory conservation agencies, State tourism organisations and industry bodies in a partnership aimed at providing global leadership in strategic research and development to improve the sustainability of the tourism industry. The CRCST funded nine Western Australian projects in 2002–2003 of which five were projects proposed or supported by the Department and a further three are of direct interest. The Department also participated in the CRCST's rebid for Commonwealth funding and was successful in receiving \$27 million over seven years.

During the year the Department, as a member of the CRCST, was involved in and contributed funding towards the commencement of a study to assess the economic value of recreation and tourism in the State's conservation protected areas including marine parks and forests.

The project will estimate the value of Western Australia's natural areas for tourism and recreation through estimation of the tourism expenditure, income and employment generated regionally and statewide. Ningaloo Marine Park/Cape Range National Park and the southwest forests of the State were selected as case study areas. Collection of information on economic values of these sites has commenced.

A major outcome will be a rapid assessment tool kit for the assessment of the economic values of any natural area, so that the economic case for investment in specific parks, reserves and forests can be readily stated. This will aid in decision making when evaluating, protecting, funding and managing natural areas used for recreation and tourism in Western Australia.

COMMUNITY INVOLVEMENT

The contribution made by volunteers to the Department's Community Involvement program continues to remain an effective means of enlisting the support of the general public for the Department's management programs.

Volunteers continued to participate in several major ongoing projects such as the Bibbulmun Track and Cape-to-Cape Track maintenance, the campground host program, wildlife care and protection, flora and fauna surveys, plant curation, regional parks rehabilitation projects, and friends of parks groups.

There were 32 new projects registered this year – a total of 444 projects since the inception of the program. New projects ranged from the Lake Mason cleanup and maintenance (a recently purchased ex-pastoral lease), Goldfields reserve management and fauna recovery projects in the South Coast region, resulting in an increased output of this successful program.

Many 4WD clubs work closely with the Department's field staff to enhance and improve the natural landscape under projects such as the Lake Mason clean up and maintenance weekend and other rehabilitation projects throughout the State. Additionally, wildlife carers and wildlife officers attended the 4WD Caravan and Camping Shows, and the Royal Agricultural Show to inform and educate the general public about WA's unique wildlife.

The Department would like to acknowledge the partnership between the Department of Justice and the support provided for projects such as the Bibbulmun Track, Munda Bidli Trail, minor maintenance in the Kimberley and Pilbara regions and in regional parks in Perth and other areas. Conservation Volunteers Australia also provided assistance with groups of volunteers in many areas.

The Community Involvement Program continues to provide opportunities for students to gain work experience throughout the year, and the Department receives valuable feedback from the public, through managing parks in partnership with community based advisory committees and friends of parks groups.

Several volunteer projects were reviewed this year, including the Honorary Conservation and Land Management officer training, the basic wildlife carer's course, registration of wildlife carers and the campground host program.

A major review of the Department's volunteer database found approximately 2,700 inactive volunteers without any contribution recorded for the last year and, after consultation with the volunteers, approximately 2,000 were de-registered through the process.

CALM Bushranger Cadet Program

Each week across Western Australia approximately 1,000 Department of Conservation and Land Management Bush Rangers - secondary school students aged 13 to 17 - take part in community conservation projects.

In 2002, they spent more than 200,000 volunteer hours on the study of nature conservation. They were assisted by 114 adult instructors and 90 Department staff.

Activities between Bush Ranger units throughout the State consolidated a strong conservation network of young people. As many young people and adults have been associated with their Bush Ranger units from when the units were formed, the Bush Rangers program has a distinctive place in schools and communities.

Year	No. school units	CALM Cadets	No. of hours
2000-01	21	800	105,600
2001-02	29	1100	180,000
2002-03	28	960	200,000

Community involvement volunteers

Year	Number registered	New projects	Number contributing	Hours contributed
1998-99	2,400	19	836	108,630
1999-00	3,800	12	1,400	121,000
2000-01	4,499	26	1,600	190,000
2001-02	5,683	20	2,300	217,000
2002-03	5,160	32	3,231	264,000

LIAISING AND WORKING WITH INDIGENOUS PEOPLE

Cross Cultural Awareness programs were conducted by the Indigenous Heritage Unit for more than 100 staff from throughout the Department, including Corporate Executive. Similar training programs were provided for other Government departments and agencies with very encouraging results.

The Aboriginal Cultural Heritage Education programs continue to attract numerous bookings at schools, TAFEs and universities.

Aboriginal people trained by the Indigenous Heritage Unit to provide cultural interpretation programs are now managing the tourism partnerships established with Captain Cook Cruises (Point Walter Aboriginal Heritage Tour) and the West Australian Maritime Museum (Aboriginal Heritage Walk in Fremantle). These initiatives were undertaken as pilot programs to determine the potential for cultural tourism joint ventures both on and off Department management estate. They also enabled the business development strategies to be trialed that enable Aboriginal people to provide cultural interpretation services to tourists and visitors to national parks and other attractions.

The Department also began joint management arrangements in various locations around the State resulting in the Minister for the Environment signing a Deed of Agreement to establish the Purnululu Park Council at Purnululu National Park. Negotiations took place with the Western Australian Aboriginal Native

Title Working Group to develop policy options for Indigenous ownership and joint management of conservation lands.

The Department initiated its Aboriginal Training and Employment Scheme and confirmed a policy commitment to achieve a target of 10-15% representation of Aboriginal people in its total workforce within the next ten years.

The Department contributed to negotiations about native title around the State, including the Burrup Agreement. This will see the Burrup non-industrial land jointly managed by the Department and traditional owners for the protection of biodiversity, cultural heritage and recreation values under a proposed management plan to be agreed by the traditional owners and approved by Minister for the Environment.

BUSINESS MANAGEMENT

Providing accurate park information and promoting acceptable and responsible use by all visitors to the estate and providing services to the tourism industry are important functions of the Department.

The three brochures featuring the Northern, Central and Southern regions of Western Australia continue to be popular decision making tools for current and future visitors to the estate as they present both a regional overview and detailed summaries of parks within each region. With Australia wide distribution, the brochures continue to be one of the Department's most valuable communication tools.

Staff undertook a redevelopment of the Fees and Charges brochure to reflect updates and additions to the Department's fee system.

The Department attended a number of consumer events during the year where it distributed brochures and promoted and sold National Park Passes. During November 2002, the Department linked with Tread Lightly Australia and Track Care WA in a joint display at the 4WD and Adventure Show to promote and encourage responsible visitor behaviour. In March 2003, Departmental staff from Wildlife and Park Policy and Services Branches attended the Caravan, Camping and Park Home Show to cooperatively build the public's awareness and appreciation of nature conservation, the conservation estate and services. The Department also participated in all interstate caravan shows through partnerships with the Western Australian Tourism Commission and regional tourism associations.

Brochures and park passes continued to be distributed and sold through 40 independent retail outlets as well as Department offices and some national parks. As of 30 June 2003, the Department had distributed 21,000 park passes throughout the State, representing a five per cent increase in sales from last financial year. More than 25% of park passes sold were renewals, demonstrating a high level of satisfaction with the product.

Breakdown of Pass Distribution

Holiday Park Pass (4 wks)	34% (down 3%)
Annual Local Park Pass (1 park, 12 mths)	31% (down 3%)
Annual All Park Pass (All parks, 12 mths)	29% (up 6%)
Gold Star Park Pass (All parks, 12 mths and 1yr <i>LandScope</i> subscription)	6% (stable)

The Holiday Park Pass was redesigned to attach to a vehicle's rear vision mirror to improve usability. This modification improves pass visibility and can be more easily removed at expiry than the old sticker pass. The

change in design received positive feedback from users.

The Department was involved with the organisation of the FACET Conference in May 2003. This year's Geraldton event aimed to promote sustainable nature and eco-tourism within the Mid-West region.

The Department continues to work closely with the tourism industry with the publication of the quarterly *Touring Western Australia* newsletter and discussions on major issues with key industry representatives at the Department's *Tourism Industry Reference Group*. The email broadcast system continues to be an effective communication tool that notifies tour operators and visitor centres of current and important park information.

Staff were also involved in developing marketing recommendations for the new Barna Mia animal sanctuary at Dryandra Woodland and the greater Woodland area. These aim to complement the existing long term Business Plan for the Woodland.

The Coral Bay Boating Strategy and associated mooring strategy were developed and approved by the Minister for the Environment. These strategies are now being implemented and will address key management issues at Coral Bay relating to public safety, damage to the Ningaloo Reef, equity amongst users and the capacity of Southern Bills Bay to tolerate boating and recreational activities.

Longer-term 'T class' licences linked to the level of achievement of industry-based accreditation also expanded to include Green Globe 21 Accreditation, which is now a recognised program along with the Nature and Ecotourism Accreditation Program (NEAP) and the National Tourism Accreditation Program (NTAP). Accreditation assists the industry in raising the standards of operation and promotes greater awareness of the impact of commercial tourism upon the conservation estate.

At the end of 2002–2003 there were 12 NEAP and 94 NTAP accredited licensed tour operators operating on lands and waters managed by the Department.

Policy for Parks and Visitor Services

The revised Policy 18 – Recreation, Parks and Visitor Services was considered by the Conservation Commission and Marine Parks and Reserves Authority. The revised policy is to be released for a public comment period.

A draft policy on identifying and managing wilderness on land managed by the Department was developed. The draft policy provides guidelines for defining areas that may be considered as wilderness areas and for the management of uses and activities within these areas including access, recreation and tourism, Indigenous use and fire management. The draft policy was released in June 2003 for a two-month public comment period.

A review of the Department's policy on Beekeeping on Public Land was also progressed.

Track and Trails Unit

The Department's Tracks and Trails Unit was established during the year. Its primary function is coordination of activities relating to the development, management and maintenance of the Department's long tracks. It will also provide a consultancy service on recreational tracks and trails matters to Department staff in regions and districts. Other projects undertaken include coordinating the Department's implementation of the Australian Walking Track Standards, development of a track database in RECDATA and development of audit methodology for departmental tracks and trails.

Department of Justice work crews from Karnet prison and the Walpole Work Camp continue to work on Departmental track construction, maintenance and improvement projects. A crew from Karnet worked almost exclusively on construction of the first

stage of the Munda Biddi off-road cycling trail between Mundaring and Collie. A crew from Pardelup Prison Farm also helped to maintain the Bibbulmun Track in the Albany area.

Bibbulmun Track

Funding of \$25,000 was secured from the Lotteries Commission through the Bibbulmun Track Foundation to develop a walker survey and monitoring methodology for the track that can also be applied to other longer tracks and trails. Results and a report from the prototype survey currently being conducted on the track will be available in November 2003.

The second edition of the Bibbulmun Track Northern Maps and Map Pack were released in December 2002 with the southern maps due for release in late August 2003. Map and guidebook sales continue at a steady rate with proceeds providing valuable revenue for Bibbulmun Track coordination and administration.

A wildfire in January in Monadnocks Conservation Park destroyed approximately 24km of the Track and two campsites, Mt Cooke and Nerang. Reconstruction of the damaged track facilities and campsites will commence in spring 2003 and should be completed before autumn 2004.

The Bibbulmun Track continues to be popular with groups such as recreation clubs, scouts, schools and other education groups. It is proving to be a very valuable resource for the recreation and education sectors. The Bibbulmun Track Foundation continues to provide information and advice to schools and other groups in sustainable use of the facility.

The partnership between the Department and the Bibbulmun Track Foundation continues to produce positive results for the track and the community. In recognition of this \$50,000 per annum for three years (July 2002 to June 2005) was allocated

from the Department's budget to the Foundation to fund the management of the volunteer maintenance program and the provision of walker information services. Other collaborations during the past year include:

- Expansion of the volunteer maintenance program including documentation and improvements to volunteer training;
- Publication of a field guide, *Wildflowers of the Northern Bibbulmun Track and Jarrah Forests*;
- Production of 80,000 new, full colour Bibbulmun Track brochures and Bibbulmun Track display material;
- Inaugural Mountain Designs Bibbulmun Team Challenge supported by the Department through seed funding, a Department of Conservation and Land Management team and operational support of District and Tracks and Trails Unit staff.

The Foundation continues to develop and market innovative tourism products based around various sections of the track. Packages are being sold successfully in Europe and Japan.

The Foundation has 1,800 current members of whom around 300 are registered as volunteers. One hundred and thirty nine of these are active and performed on average 67 hours of maintenance, guiding or office work during the year to give a total of 9,300 hours devoted to the Bibbulmun Track.

Munda Biddi Bike Trail

A section of the first stage of the Munda Biddi off-road cycling trail between Mundaring and Dwellingup was completed in December 2002. It includes three purpose built campsites with large steel and timber framed sleeping shelters, bike shelters, picnic tables, repair areas, rainwater tanks and composting toilets. A package comprising two maps and trail

information was produced and to date more than 1,000 packs were sold. Reports and feedback from the public were very positive and trail usage appears to be good. Construction started in January for the Dwellingup to Collie section that will complete the first stage from Mundaring to Collie in early 2004. Extra maps are due for release at the same time. A guidebook is due to be released once the trail reaches Nannup.

A feasibility and alignment planning study was undertaken for the proposed Munda Biddi alignment in the Warren area in March 2003. Detailed planning for the Collie to Northcliffe second stage is almost completed. The Shire of Nannup received a Lotteries grant to complete 50km of the trail utilising an old rail formation between Jarrahwood and Nannup. Funding has not yet been secured for the rest of the stage.

A not for profit community group, the Munda Biddi Foundation continues to work closely with the Tracks and Trails Unit to secure funding and to follow marketing opportunities for the new trail. The Foundation has over 250 members and 30 Corporate Members. This year, collaborations with the Department have included production of a new trail brochure and quarterly newsletters. The Foundation has also encouraged promotion of the trail with Trail Information Nights and information stands at community events such as the Dwellingup Winterfest. The trail has also attracted increased media coverage with features on Postcards WA, and in the travel sections of the West Australian and Sunday Times newspapers.

Purnululu National Park World Heritage Listing

The Western Australian Government and the Commonwealth Government cooperated to nominate Purnululu National Park as a place of outstanding natural and cultural values for listing as a World Heritage Area. The Commonwealth submitted the

nomination to the World Heritage Committee in February 2002.

The International Council on Monuments and Sites and the World Conservation Union assessed the nomination and reported to the World Heritage Committee with their recommendations during the early part of 2003. The assessment reports were based on analysis of the nomination and the findings of a joint field visit in August 2002.

The World Heritage Committee was to consider the nomination and make a determination in early July 2003.

REGIONAL PARKS

The Department of Conservation and Land Management continues its role in coordinating the management of Yellagonga, Herdsman Lake, Canning River, Woodman Point, Beeliar, Jandakot, Rockingham Lakes and Darling Range regional parks.

The Department's coordinating role in regional parks encompasses:

- managing lands within regional parks owned by the Western Australian Planning Commission which were formerly managed by the Department for Planning and Infrastructure;
- managing lands vested in the Conservation Commission of Western Australia;
- managing reserves vested in the Recreation Camps and Reserve Board formerly managed by the Department of Sport and Recreation; and
- preparing management plans for each of the parks and ensuring an integrated management approach to works within the parks.

The major achievements in managing the parks during the past twelve months include:

Planning Works

There were a number of significant plans and design studies completed for regional parks. The *Yellagonga Regional Park Management Plan (2003–2013)* was released by the Minister for the Environment in June 2003 and the *Woodman Point Regional Park Draft Management Plan (2002–2012)* was released for public comment by the Member for Cockburn in August 2002.

Other park specific plans included an *Environmental Assessment of Horse Riding in Jandakot Regional Park*, the *Draft Masterplan for Boya and Stathams Quarries* in Darling Range Regional Park and interpretation plans for Canning River, Yellagonga and Herdsman Lake regional parks.

Departmental planning approaches for Darling Range Regional Park were also reviewed to guide the future preparation of regional parks and national parks in the Perth Hills.

The preparation of plans applicable across all regional parks included the *Regional Parks Communication Plan*, which provides strategies for communicating with park visitors through interpretation, promotions and marketing, education and advisory and liaison activities. Also completed was a *Visitor Risk Management Program* that identifies potential risks and mitigation works for the parks.

On-ground Park Improvements

Major recreation facilities were provided across the regional parks system.

At Woodman Point Regional Park, new facilities such as picnic shelters, seats, pathways, bike racks and new paths were provided at John Graham Reserve and adjacent to the Woodman Point Jetty. At Rockingham Lakes Regional Park a major upgrade to the Shoalwater Bay parking area at Cape Peron was completed and part of Point

Peron Road resurfaced. The construction of eight kilometres of shared paths in Yellagonga and Herdsman Lake regional parks is underway, as is the implementation of Stage Two of the Jervoise Bay Conservation and Recreation Enhancement Plan, providing paths, parking facilities and interpretation at Mount Brown and Henderson in Beeliar Regional Park.

New directional, orientation, management and interpretation signs were installed across all regional parks and significant weed control and rehabilitation works continued with support from numerous community volunteer groups.

A work centre was established at Woodman Point Regional Park allowing work crews to efficiently service the regional parks south of the Swan River.

The Government is committed to funding the Department's ongoing management costs for regional parks from the Consolidated Fund. Up to \$5 million was committed for capital works from the Metropolitan Region Improvement Fund. The 2002–2003 recurrent budget was fully acquitted and a capital works program for each park was prepared in consultation with the relevant community advisory committees.

Community Involvement

The Regional Parks Unit continued to administer Community Advisory Committees for each of the regional parks. The committees continued to provide valuable advice to the Department and other land managers in managing the parks.

A key initiative for the year was the establishment and administration of the Regional Park Community Grants Scheme. The scheme was established to assist community volunteer groups to undertake projects, which rehabilitate, conserve, enhance or

restore natural areas as well as for activities that would raise public awareness and appreciation of nature conservation at a local level. A total sum of \$50,000 was offered. The grants ranged from \$500 to \$5,000 and were primarily for local community groups undertaking works in regional parks.

Community involvement is expressed through volunteer contribution to regional parks, with 698 volunteers spending more than 9,000 hours working in regional parks over the past 12 months. Works undertaken in the parks by volunteers primarily related to weed control and rehabilitation.

OTHER INITIATIVES

Recreation Training

During the year, the Department initiated a Best Practice course in Project Management for staff involved in the planning and development of new visitor facilities and other Parks and Visitor Services projects. The CPMGroup, an external training provider, which prepared the national competency standards on project management, were engaged to develop and deliver a series of three-day courses to meet Departmental requirements and nearly 60 staff completed this training program.

Involvement with the WA 4WD Association, Track Care WA and Tread Lightly! Australia

Regional, district and park staff across the State continued to promote the tread lightly message and to actively work with the WA 4WD Association and member clubs and with Track Care WA on various projects. These ranged from track rehabilitation, dune stabilisation and beach clean-up projects to larger initiatives like the homestead improvement work carried out at Lake Mason in the Goldfields over the Easter holidays, which attracted several hundred participants.

The Department also hosted a one-day workshop with Track Care and 4WD club representatives at the Hills Forest Discovery Centre in May. The main aim of the workshop was to discuss the ongoing involvement of the organised 4WD movement in track management and other environmental rehabilitation projects and associated issues relating to the provision and management of four wheel driving opportunities. The Department also participated with Tread Lightly! and Track Care in the annual WA 4WD Show.

Visitor Information and Statistics (VISTAT) Program

The aim of the VISTAT Program is to provide accurate information on visitor use, needs and expectations, and on levels and patterns of use throughout lands and waters managed by the Department. The VISTAT and Visitor Survey databases contained within the Recreation and Tourism Information System (RATIS) provide an effective and efficient means of collating and storing visitor use monitoring data and visitor feedback form results. The Department continued to upgrade both the RATIS database and the hardware required to monitor visitor use.

Visitor Use Monitoring

Visitor use is monitored at 190 sites using traffic classifiers and counters, pedestrian counters, observation surveys and ticket sales in national parks, State forest areas and reserves throughout the State. The total visitation to lands and waters managed by the Department during the year was 10.2 million visits. This represents an increase from the 9.8 million visits recorded during 2001–2002. This increase reflects a continuing interest by the public in visiting natural areas managed by the Department.

Visitor Survey Program

The visitor satisfaction survey program continues to provide visitor feedback used to assess visitor needs and expectations as well as satisfaction with

Total visits to Lands and Waters managed by the Department

Year	No. Data collection sites	Total No. visits (million)
1996–1997	137	6.4
1997–1998	144	8.1
1998–1999	149	8.7
1999–2000	158	8.9
2000–2001	158	9.7
2001–2002	185	9.8
2002–2003	190	10.2

recreation and tourism facilities and services.

Those national parks and other recreation areas surveyed represent a broad range of recreation settings based upon visitor use levels, access to the site and presence of facilities. The survey provides feedback from visitors regarding the management of these areas, their overall level of satisfaction during their visit, their main purpose of visit and the activities undertaken. This information aids in the planning and management of these recreation areas by providing vital information for site planning and design, visitor communications, business and marketing plans and performance evaluation.

REGIONAL SERVICES

The Department's nine regions entered into Service Provider Agreements with the Director of Parks and Visitor Services to provide a full range of management, maintenance and development services required to effectively and efficiently implement actions under the Parks and Visitor Services Output. Highlights from the regions include:

Goldfields

- Upgraded camping and day-use facilities at Rowles Lagoon Conservation Park and Cave Hill/Burra Rock recreation areas. The upgrade includes new composting toilets, hexagonal information shelters, improved access to facilities, and interpretive information.

- Completed the upgrade of homestead/shearing quarters and surrounding facilities at Lorna Glen and Lake Mason, former pastoral stations purchased under the Gascoyne/Murchison Strategy, to meet visitor and caretaker requirements.
- Upgraded access into Rowles Lagoon Conservation Park under a Memorandum of Understanding with the Shire of Coolgardie. In addition the Shire begun forming a road from Widgiemootha into the Cave Hill Reserve and onto Burra Rock to improve visitor access.
- Arranged site clearance through the Central West Claimant Group for the Main Roads Western Australia funded road upgrade into Boondi Rock, Goldfields Woodland National Park.
- Continued liaison with Indigenous groups such as the Goldfields Land and Sea Council, through a Memorandum of Understanding and development of joint management agreements. Four Aboriginal trainees completed their Certificate II in Land Management, and have progressed to Certificate III level employed by the Department.
- Continued to expand the community involvement and volunteers program by liaison with volunteer groups such as the WA 4WD Association.
- Staff participated in major tourism initiatives in the Goldfields involving Departmental estate including the launch of Golden Quest Discovery Trail.
- Involved, with FESA, in developing a Wildfire Threat Analysis that will facilitate protection of public utilities and facilities inside Boorabbin and Goldfields Woodlands National Park.

Kimberley

- Construction was largely completed on a new office for the East Kimberley Work Centre. The new departmentally owned office block is situated adjacent to the existing Department depot and will consolidate operations as well as result in rental savings.
- Broadened use of the effective campground host program into a number of other parks.
- Provided a significant amount of regional assistance to progress nomination of Purnululu National Park to the Commonwealth Government for World Heritage listing.
- Completed sealing of Mirima National Park Road at Kununurra, achieving major reductions in dust levels as well as reducing road maintenance requirements and improving access for cyclists.
- Developed procedures to manage Ngauwudu (Mitchell Plateau) in close cooperation with the Wunambal people. Cooperative management of the national parks and conservation parks as well as the adjoining lands progressed well during the year. Agreement was reached with Traditional owners on cooperative management arrangements and two Aboriginal trainee rangers were employed.

Mid West

Moora District

- Catered for increased visitor numbers to The Pinnacles in Nambung National Park – which now attracts 200,000 visitors a year, an increase of 14% on the previous year.
- Completed the sealing of the last five kilometres of the road to the Pinnacles Desert.
- Continued with the planning of a visitor information and interpretation centre in Nambung National Park at the Pinnacles, involving engineers, an architect,

hydrogeologist, tourism consultants, tour operators and visitor surveys.

- Provided information and interpretation, by way of constructed information shelters, for increasing numbers of tourists to Stockyard Gully National Park. Visitor numbers reached 4,500 a year, up 22% from the previous year.
- Provided visitor facilities to Stockyard Gully National Park with composting toilets and a walk trail as well as improved road access around the day use areas. The walk trail was constructed with assistance from Conservation Volunteers Australia.
- Commenced implementation of Recreation Master Plan for Coomallo Conservation Park to improve visitor facilities, including construction of a composting toilet and a bridge over the creek.
- Constructed a sealed road, carpark and walk trail at Molah Hill lookout site in Southern Beekeepers Nature Reserve, which will allow access for visitors with disabilities.
- Commenced construction of an 18-kilometre tourist road through the Lesueur National Park.
- Continued with the rationalisation of tracks in Nilgen Nature Reserve and rehabilitation of degraded areas.
- Continued with the development of the “Turquoise Coast Recreation Master Plan” planning for recreational opportunities and future visitor management between Lancelin and Cervantes.

Geraldton District

- Kalbarri National Park - constructed a Park Headquarters in Kalbarri; developed new composting toilets and a picnic shelter at the Hawks Head river gorge lookout site; constructed new coastal viewing platforms and paths at Shellhouse and Island Rock; extended viewing platforms

and upgraded paths on the coastal cliffs at Natural Bridge and Castle Cove; prepared a report on "Visitor Access and Safety at the Z Bend" for discussion of management options with stakeholders; continued to liaise with the Nanda Native Title Working Group regarding recreation planning, goat control and preparation of the draft management plan for the Park; and liaised with Main Roads Western Australia in their preparation of plans and tender specifications for sealing the Hawks Head and Ross Graham roads and carpark.

- Kennedy Range National Park - continued to liaise the Gnulli Native Title Working Group; and prepared a Recreation Masterplan to guide necessary operations and identify long-term options for recreation management.
- Gascoyne Murchison - participated in the Gascoyne Murchison Tourism Pathways steering committee.
- Carnarvon - prepared site development plans for managing visitor access at Chinaman's Pool, on request from the Department of Environmental Protection; and prepared site development plans for a coastal walk trail in the Carnarvon Heritage Precinct.
- Abrolhos Islands - participated in the Abrolhos Islands Management Advisory Group; and prepared site development plans for a boardwalk at the Abrolhos Islands to protect a sensitive seabird-breeding site, on request from the Department of Fisheries.

Shark Bay District

- Monkey Mia Reserve - constructed a new entry station at Monkey Mia Reserve; conducted school holiday activity and interpretive programs at Monkey Mia; continued to conduct visitor surveys to monitor visitor expectations and satisfaction at Monkey Mia; and liaised with the Yadgalah Aboriginal Corporation to

prepare Indigenous heritage interpretive displays for the Monkey Mia Visitor Centre.

- Appointed a second Aboriginal trainee in the District.
- Continued to liaise with the Malgana, Gnulli and Nanda Native Title Working Groups regarding planning in the Shark Bay World Heritage Area.
- Participated in planning with the Shire of Shark Bay for the World Heritage Centre and Management Precinct.
- Constructed 10 kilometres of new 4WD track in the north of Francois Peron National Park and rehabilitated the old track, to enhance visitor safety and protection of coastal landforms.
- Redeveloped carparks and paths at Cape Peron and Skip Jack Point, and constructed a new two kilometre walk trail between these two recreation sites.
- Continued the homestead host program based at Peron Homestead.
- Conducted extensive community consultation in preparing the Shark Bay World Heritage Area Recreation and Tourism Plan, including a two-day Aboriginal workshop and a two-day project advisory group meeting.
- Completed the "Shark Bay World Heritage Area Communication Strategy" and the "Shark Bay World Heritage Area Interpretation Action Plan". Presented these plans to key stakeholder groups.
- Produced signs, posters, displays and brochures to interpret World Heritage values.
- In partnership with pastoral station managers, developed toilets, signs and a brochure to reduce the impacts of coastal camping on Tamala and Carrarang Stations.
- In partnership with the Shire of Shark Bay, upgraded visitor

facilities along the Boolagoorda Walk trail adjacent to the Stromatolites at Hamelin Pool. This included reconstruction of the historic flagpole marker.

Pilbara

- Progressed Indigenous joint management arrangements and the draft management plan at Millstream-Chichester National Park
- Completed the establishment phase of the new Savannah campground development at Karijini National Park with Gumala Enterprises.
- Completed the six-kilometre upgrade of Dales Road in Karijini National Park with the Shire of Ashburton.
- Completed the upgrade of Karijini Airstrip to Royal Flying Doctor standard.
- Appointed two Aboriginal trainee rangers to undertake Certificate IV Conservation and Land Management course.
- Conducted an interpretive guided activities program for the region's parks called 'Caring for Country'.
- Implemented a campground host management system.

Exmouth District

- Completed roadworks and additional carparking at Turquoise Bay to cater for increasing visitation to the site.
- Completed building plans, specifications and site plan for the Cape Range National Park entry station.
- Completed the site plan for the Turtle Interpretation Facility in the Jurabi Coastal Park with the Shire of Exmouth.
- Ongoing monitoring of whaleshark interaction with research, licensing and database development.
- Completed the Bunderra Coastal Park management plan with the Department of Defence.

- Established a permanent ranger presence at Coral Bay.
- The Coral Bay Boating Strategy and associated mooring strategy were developed to address key management issues at Coral Bay relating to public safety, damage to the Ningaloo Reef and equity amongst users.

South Coast

Albany Work Centre

- Commenced the construction of access steps to Barren's Beach in Fitzgerald River National Park.
- Completed the construction of the Bluff Knoll Carpark redevelopment in Stirling Range National Park. The redevelopment involved the removal of old structures, extension and sealing of the carpark, and construction of an information shelter, boardwalks, viewing platform, composting toilets and disabled access.
- Commenced the construction of a new Castle Rock carpark and facilities in Porongurup National Park.
- Completed construction of beach access steps at Salmon Holes in Torndirrup National Park.
- Developed interpretation material for a park information bay at Waychincup National Park.
- Ten Indigenous trainees commenced their three-year traineeship in the Region.

Esperance District

- Constructed a replacement toilet at Mt Ragged in Cape Arid National Park.
- Cape Le Grand National Park – completed the preparation of Thistle Cove Road for sealing; completed the preparation of part of Hellfire Bay Road for sealing; and redeveloped Lucky Bay ablution block and carried out a joint project with the Bay of Isles Aboriginal Community to maintain walk trails.

- Stokes National Park – completed a Coastcare project at Moir Homestead with the Bay of Isles Aboriginal Community involving vehicle traffic control measures, scrub and noxious weed removal, relocation of bee swarms and walk trail construction; and completed a Coastcare project at Shoal Cape with the Bay of Isles Aboriginal Community involving the construction of a walkway, viewing platform and stairs and rehabilitation.
- Installed three new information shelters and interpretive information at Esperance Lakes Nature Reserve.
- Completed the third and final stage of a Coastcare project with the Bay of Isles Aboriginal Community, involving construction of a viewing platform, signage and additional boardwalks at Middle Island.
- Completed a Coastcare project with the Bay of Isles Aboriginal Community, involving the upgrading of a steep 4WD track and rehabilitation of other tracks at Point Culver.

South West

- As in previous years Visitor Risk Management has remained the region's highest priority, with particular emphasis on mitigating risk in the karst and cliff areas of Leeuwin Naturaliste National Park.
- Significant activities this year include the ongoing implementation of the *Protecting our old-growth forests* policy, through the New Parks program, which has resulted in the appointment of another National Park Ranger in addition to the four appointed last year and an additional four park workers to work specifically in the proposed new national parks. A Visitor Interpretation and an Eco-education officer were also appointed to work within the new national parks and Leschenault

Peninsula Conservation Park.

- The indicative boundaries for the Wellington, Greater Preston, Milyeannup, Hilliger, Blackwood River, and Butler National Parks proposed under the *Protecting our old-growth forests* policy were released for community comment.

Wellington District's Parks and Visitor Services program was focused almost entirely on works within the Wellington National Park and its proposed additions.

- Continued management planning for the park, with the community advisory committee considering issues such as recreational use of Wellington Dam and park boundaries.
- Completed consultation with the local Aboriginal community in relation to plans to improve camping and picnic areas at Honeymoon Pool.
- Continued the road upgrade program with the sealing of another section of Lennard Drive and the steep sections of River Road south.
- Commenced survey, design and engineering for: the realignment of Wellington Weir Rd and redevelopment of parking and day use facilities at Wellington Dam; park entry statements on the Coalfields Highway; and a roadside park information area on Wellington Weir Road.
- Leschenault Peninsula Conservation Park – rehabilitated several kilometres of dunes as part of the ongoing dune stabilisation program; commenced planning and design for the sealing in 2003-2004 of Buffalo Road, the JB O'Reilly car park and Buffalo Road Beach car park; and redevelopment of Belvidere Picnic area is nearing completion, which includes gas barbecues, sealed pathways, a new toilet block, interpretation and wheelchair access.

Blackwood District's program was focused almost entirely on works associated with the Leeuwin Naturaliste National Park and the proposed Margaret River National Park, Blackwood National Park and St John's Conservation Park.

Major works at Leeuwin Naturaliste National Park included:

- Progress on management planning for the Parks of the Leeuwin Naturaliste Ridge.
- Completion of the new ranger's house at Contos campground, and a second camp kitchen constructed.
- Sealing of the southern section of Moses Rock Road and Contos Road, from Lake Cave to the campground.
- Installation of new stairways and walkways in Calgardup Cave as part of the ongoing program to improve public safety and protect cave features. A new toilet block was constructed at Giants Cave.
- Construction of an abseil-landing platform in the Brides Cave doline.
- Realignment of several sections of the "Cape to Cape" Track to enhance walker experiences and protect sensitive areas. New water tanks were installed at the campsites. Planning has commenced for two lookout platforms and a section of universal access track from Cape Naturaliste to Sugarloaf Rock.

Major works at St Johns Brook Conservation Park included:

- Progress on management planning for the Park.
- Construction at Barrabup Pool of a scaled down version of an old timber railway bridge across the Brook to enable walkers and cyclists to access the Old Timberline Trail throughout the year, and completion of car park drainage and landscaping works.

- Construction of a campsite accessible only to walkers and cyclists along the Old Timberline Trail is nearing completion.

Margaret River

- Modernised carpentry and metal fabrication workshop facilities at the Margaret River work centre to enable construction of park furniture, gates and walkways by skilled Departmental personnel.
- Approaching completion of a new shower and toilet block at the Margaret River Eco-discovery Centre and relocated a caretaker's house to the site.
- Completed major improvement of day use facilities at the Rusden Picnic area, which are now universally accessible.

Swan

- Expanded the geographic spread of seasonal activity programs as part of the Nearer to Nature interpretation and educational programs to cover the entire metropolitan area, from Yellagonga Regional Park in the north, to Rockingham Lakes Regional Park in the south, and The Hills Forest and Darling Range Regional Park in the east. Activities were also conducted on the beach at Marmion and Shoalwater Islands Marine Parks. Attendance increased by 17% overall to 15,360 people.
- Expanded the Nearer to Nature marine school education program to include two Perth marine parks, Marmion and Shoalwater Island. Fifteen hundred students attended activity programs from October 2002 to April 2003, which was a 32% increase over the previous year.
- Completed Stage Three of the award-winning campground at The Hills Forest Discovery Centre resulting in a large covered area being built to enable outdoor activities to be undertaken all year round.

- Completed Stage 1 of the revamped Flora Walk at The Hills Forest Discovery Centre, which connects the Rare and Endangered Flora Garden to the Centre.

Swan Coastal District

- Yanchep National Park now has five full time Aboriginal staff including: an Education Officer, Aboriginal Heritage Officer, Interpretation Officer, and two Ranger trainees.
- Yanchep National Park Manager won the Premier's Multi Cultural award for Community Service including advancing relationships between Indigenous and Non-Indigenous people.
- Yanchep National Park Aboriginal Education and Interpretation Program won the International Best Practice Award from Australasian Regional Association of Zoological Parks and Aquaria for two interpretive activities: "Nyoongar Camp Life" and "Six Seasons Bush Tucker Walk".
- Held a weeklong Centennial Celebration at Yanchep National Park commemorating 100 years since European explorers discovered Crystal Cave.

Perth Hills District

- Completed stage one of restoration of the John Forrest National Park picnic shelters, which involved the reconstruction, using traditional building products and techniques, of four picnic shelters located in the main recreation area. Some of the Park's 16 shelters in the area were identified in a heritage survey as having historical significance and stage one completed the most important. The shelters were originally built by sustenance workers in the 1930s and are considered to be valuable for the community of West Australian. The Park was recently the first National Park in Western Australia to be National Heritage listed.

- Completed, in partnership with the Shire of Kalamunda, the construction of a large viewing deck located near South Ledge within the proposed Mundaring National Park. The viewing deck, named Golden View, was constructed by Perth Hills District staff and affords views over the historic Mundaring Weir precinct, including the Number 1 Pump Station museum and Lake C Y O' Connor.
- Completed stage one of the new Chuditch camp ground at Lane Poole Reserve. When finalised in 2004 this area will accommodate about 150 campers with new sites and facilities.

Warren

- Considerable progress in developing new recreation and tourism facilities within the new national parks across the region has occurred and is ongoing. This work has included upgrading of day use, camping facilities and walk trails in Beedelup National Park, Giblett Block, Cleave Block, Warren National Park, Walpole Nornalup National Park, Perup Nature Reserve, Lake Muir Nature Reserve, Boorara Conservation Park and Fernhook Falls at Walpole.
- Commenced the process of developing a management plan for the national parks of the Walpole Wilderness Area, which has involved a high level of community involvement in planning processes.

The planning process includes the identification and creation of gazetted areas of wilderness within the Walpole Wilderness Area.

- The indicative boundaries for the Greater Beedelup, Greater Kingston, Boorara-Gardner, Jane, Grater Dordagup and Boyndaminup National Parks proposed under the *Protecting our old-growth forests* policy were released for community comment.
- Continued the upgrade of roads and tourism facilities at Point D'Entrecasteaux in the D'Entrecasteaux National Park with the part sealing of the access road and walk trials, and construction of new walk trials and viewing platforms.
- Employed an Indigenous Liaison Officer based at Manjimup to commence work on improving Indigenous involvement in the Department's conservation management and to achieve joint management of national parks.
- Progressed the review of the Shannon and D'Entrecasteaux National Parks Management Plan.
- Continued the upgrade of several recreation sites in the Manjimup area.
- Regional staff have continued to provide input into potential projects such the Diamond Tree Tourism Precinct and the Donnelly Valley Sky Jetty Project.
- Completed a detailed assessment for the selection of the Munda Biddi Bike Trail.

- Development of the Region's Recreation Framework Plan is continuing. This plan will provide reference material for the ongoing creation of recreation and tourism opportunities and facilities in the region.

Wheatbelt

- The new animal viewing facility at Dryandra Woodland, Barna Mia, was officially opened by the Minister for the Environment in December 2002. Visitors are able to observe in near-natural surroundings five threatened mammal species that are part of the Return to Dryandra program.
- Upgraded visitor facilities at several reserves across the region including Boyagin Rock, Buckleys Breakaway, Yorkrakine Rock and Totadgin. Installed new interpretive signs at these sites, with the exception of Buckleys Breakaway.
- The National Trust officially opened the Golden Pipeline Heritage Trail in February 2003. The trail passes through the Merredin District and three interpretive sites are on land managed by the Department at Totadgin Conservation Park, Burracoppin Nature Reserve and Yellowdine Nature Reserve.
- Two ecology courses, one interpretation workshop and one professional development workshop for teachers on *Western Shield* were conducted at Dryandra Woodland.

Performance Measures

Output 4

	2002-2003 Target	2002-2003 Actual	Explanation of significant variation
Quantity			
Visits to sites managed	9,821,000	10,155,000	
Quality			
Mean level of visitor satisfaction with their visit overall	85%	83%	
Timeliness			
Visitor services/activities delivered within advertised timeframes	100%	100%	
Cost			
Average cost per visit	\$5.12	\$5.23	

Output 5:

Astronomical Services

HIGHLIGHTS

- **New record for annual visitor attendance.**
- **Implementation of star viewing for people with disabilities.**
- **Successful total solar eclipse expedition to Ceduna, South Australia.**
- **Successful production of the annual astronomy almanac for Western Australia.**

Outcome achieved by:

Astronomical information and services for the benefit of the community.

Output description

Providing public information and awareness directly beneficial to the Western Australian community, and contributing to scientific research in astronomy by co-operating with national and international institutions in the acquisition, analysis, interpretation and dissemination of information.

Observatory activities in the past year remained focussed on its three core functions of education, information and research. Some areas experienced significant improvement, whilst others continued with relatively steady output or an increase in capability.

In 2002–2003 a new visitor attendance record of 9,772 was set. This accomplishment was mainly the result of a record number of visitors (3,827) on daytime guided tours. Star-viewing nights continue to be popular with the public and the yearly attendance totalled 5,653. Observatory visitors' satisfaction remained high as in

previous years; with more than 94% both satisfied with their visit and the educational quality of the services in which they participated.

Access to the Perth Observatory Star-viewing night program was expanded to include people with disabilities with the formal dedication and utilisation of specialised equipment acquired by the Perth Observatory Volunteer Group. The equipment consists of a specialised telescope and mount that can be adjusted to the height of the observer, and not vice versa as is the usual practice. Also, specialised video cameras, monitors and control equipment were installed in order to provide an accessible view of celestial objects for people with restricted mobility and sight. The general public can also use this equipment, which serves to integrate people with disabilities into mainstream activities. Advice on how to maximise the use of this equipment by people with disabilities was obtained from relevant authorities such as the Disability Services Commission, the Independent Living Centre and Recnet.

Acquisition of the portable data projector and laptop PC enabled the successful implementation of off-site PC-based astronomy presentations. In 2002–2003 a total of 82 lectures were conducted by Observatory staff to a total audience of 1,990. Star-viewing was also provided to rural and metropolitan schools and communities. All up, more than 2,496 people viewed the stars with Observatory telescopes transported to their locality for one of 23 'astronomy field nights' conducted during the financial year. Observatory staff and volunteers

successfully mounted an expedition to witness the total solar eclipse at Ceduna, SA on 4 December 2002. Twenty-four members of the public accompanied them. An H α telescope was acquired and safely provided a detailed view of the Sun. This instrument is also regularly used to show the Sun to daytime visitors to the Observatory.

Formal education activities provided by the Observatory included a new Honours-level astrophysics course at Curtin University, the continuation of a second-year practical astronomy course at Curtin University, as well as participation in the multi-disciplinary first-year course containing a large component of astronomy at the University of Western Australia. Also, five university students were supervised in their research projects. Two had Summer Studentships, with one involved tracking asteroids and comets, and another worked on modelling the behaviour of pulsars in binary orbits. Another two students researched the properties of asteroids, and another explored upgrading our 16" telescope for scientific observations.

Public awareness of the Observatory remains high. The Perth Royal Agricultural Show provided a venue to promote the Observatory to the general public. This was reasonably successful with more than 7,000 Observatory brochures distributed to the public and several bookings for the eclipse expedition secured. In 2002–2003 the number of people who visited, phoned for information (9,872), attended talks or attended an astronomy field night, totalled 26,240 (28,119 in 2001–2002). Observatory staff also informed the

public of astronomical events in 62 radio and five television interviews and 69 newspaper articles. A significant component of this media interaction concerned the solar eclipse of 4 December 2002.

In 2002, Perth Observatory resumed the full responsibility for the production of the annual astronomy almanac for WA. This arrangement enables this resource to be more responsive to local users needs. The 2003 almanac was the first in the new format and user feedback was positive.

The tragic destruction of the Mount Stromlo Observatory, near Canberra, by bushfire was a great blow to Australian astronomy. Like many other organisations, Perth Observatory organised events to raise funds for the Mt Stromlo disaster relief effort. The annual Summer Lecture raised \$800 and an astronomy night held in conjunction with SciTech raised more than \$5,000 for Mt Stromlo Observatory.

Volunteers again ably assisted permanent staff in many activities, notably, the Star-viewing nights, archiving, and at displays. Volunteer assistance totalled 0.83 FTEs in 2002–2003 and continues to make an important contribution to the Observatory output.

Perth Observatory's research diversified over the year with the inclusion of the study of Gamma Ray Burst (GRB) supernovae in the supernova search programme. An ANU PhD student, whose work was adversely affected by the destruction of

Mt Stromlo Observatory, provided the prime motivation for this. This work is well aligned with the current programme and capitalises on the Observatory's growing expertise in photometry and telescope automation. A substantial effort went into developing software that automatically controls the Perth-Lowell Automatic Telescope (PLAT) in an effort to promptly detect optical counterparts of GRBs (detected by orbiting satellites) in response to email notification from the GRB Notification Centre.

Searching for planetary transits (where a planet blocks out the light of the star it orbits, for a few hours at a time) was added to the gravitational microlensing technique (where a star's brightness is enhanced by the passage of a faint foreground star in front of it) in the PLANET project. Perth Observatory hosted the project's homebase (team coordination and data management) in August 2002.

Fully unattended operation has become the norm for all observing with the PLAT over the past year, until after midnight, when the telescope needs to be manually refocussed as temperatures fall during the night. This operation also utilises data from the Observatory cloud detector and overall resulted in a three-fold increase in the number of images collected by the PLAT this year. Development of a new scheduler is progressing, and was run in trial form for approximately 20 nights. It can manage PLANET observing, as well as other tasks like the Supernova Search. While the

telescope is running, members of the PLANET group (still awake, in different time zones) can directly alter the object priorities and sample rates in real time, responding to anomalous behaviour in any event. Perth is the only PLANET telescope using any form of automated observing.

Work on variable stars bore fruit with two refereed papers published concerning some of these objects. Comet observations were hampered by a lack of suitable targets but preparation of papers based on earlier observations continued.

In 2002–2003, a total of 402 (278 asteroid and 124 comet) minor body positions were published. Six of these were confirmation observations for a newly discovered Near Earth Object (NEO), and 165 were useful observations of 35 other NEOs necessary to refine their orbits. One paper was published on an unsuccessful attempt to recover a potentially hazardous asteroid, 1999 OX4. Fortunately, this null detection means it will not have a close encounter with the Earth in 2014. Also, observations progressed in a search for asteroids in the Lagrangian points of the Earth's orbit. The search was the most extensive conducted to date, but no asteroids of this type brighter than $V \sim 17.5$ were discovered.

All of the above achievements were accomplished with the consistent effort and commitment of all Observatory staff, both permanent and volunteer.

Performance Measures

Output 5

	2002–2003 Target	2002–2003 Actual	Explanation of significant variation
Quantity			
Tour visitors.	8,800	9,772	Greater than expected attendance at daytime guided tours.
Enquiries.	19,100	16,468	Given limited staff numbers, this activity decreased as the number of visitors increased.
Refereed scientific papers.	5	3	This decrease reflects the inherent fluctuation in the number of papers associated with the ongoing, protracted and complex nature of the research output, the external collaboration required, and the relatively small number of papers involved each year.
Quality			
Positive responses to 'quality' measures in customer surveys.	99%	98%	
Submitted research papers published in international refereed journals.	100%	100%	
Timeliness			
Satisfaction of information requests as they occur.	95%	98%	
Timely publication of research papers in international refereed journals.	100%	100%	
Effective study of astronomical targets of opportunity as they occur.	57%	91%	This increase reflects the observing assistance provided by summer students.
Cost			
Cost per tour visitor.	\$18.50	\$23.48	This increase is mainly due to an increase in the number of daytime guided tours that don't quite recover full cost.
Cost per enquiry.	\$32.50	\$38.30	This increase is mainly due to the combined effects of a decrease in the number of enquiries, an increase in staff salaries and the fixed costs associated with this activity.
Cost of research activities per refereed research paper.	\$85,000	\$143,931	This increase reflects the ongoing, protracted and complex nature of the research output, the external collaboration required, and the relatively small number of papers involved each year.
Cost of research activities per 1,000 head of WA population.	\$189	\$223	This increase reflects the ongoing, protracted and complex nature of the research output, the external collaboration required, and the relatively small number of papers involved each year.

General Information

The Department is in the portfolio of the Minister for the Environment and is headed by an Executive Director.

In keeping with the varied roles of the Department there is also a Corporate Executive, which consists of seven directors working with and reporting to the Executive Director. Regional, branch and other specialist officers often attend meetings of the Corporate Executive.

The Department gives responsibility to its staff whenever possible, depending on skills and potential. Provided there is opportunity, there is no impediment to the progress of a capable individual in the organisation.

The detailed structure of divisions, regions and branches is shown in Figure 1. The names and qualifications of the officers occupying senior positions are shown on the page opposite the figure.

REGIONAL ACTIVITIES

The Department is committed to regionalisation. There are nine regions which, according to the intensity of activity, are subdivided into districts. Accordingly, the Department is spread over many locations. The map shows regional boundaries and the location of regional offices, as well as the types of lands and waters the Department manages.

Management structures are in place at nine regional, 13 district and nine local offices. Within the regions there are national park rangers at 39 other locations, and a district wildlife officer at one location and operations officers at three others.

Because of community concern for protection of the natural environment and an increasing desire to experience its values, the roles of regional managers and their staff in engaging the community are most important.

Satisfactory experiences for the 10.2 million visits (2002–2003 estimated figures) to lands and waters managed by the Department, drawn from interstate and overseas as well as from all over Western Australia, are largely in their hands. Regional staff are also responsible for the conservation of native flora and fauna on all lands and waters within regional boundaries.

Regional managers are responsible under corporate direction for developing the region's annual works program, and for managing the region's budget allocation. Liaison with local groups, especially Aboriginal people, other Government agencies and the community in general, is extensive. There are often advisory committees established with a focus on parts of Department-managed lands and waters. The committees provide input into the preparation of management plans and, after their approval, advise on management. It is mostly the regional managers and their staff who are responsible for this important interface with the local community.

SPECIALIST AND SERVICE ACTIVITIES

The Department's operations are directed by the Corporate Executive and supported by specialist and service staff. Their responsibilities are as follows:

Financial Services Branch provides advice to operational managers on purchasing and fleet management, manages accounts receivable and accounts payable processes, and asset records, coordinates remote area housing, consolidates Department budgets, maintains core financial software that is shared by all parts of the Department, and produces management, tax and statutory reports.

Fire Management Services sets fire management standards, coordinates the preparation and implementation of fire prevention and suppression plans, provides detection, communications, aircraft, fire trucks and equipment and other fire support services, and conducts training.

Forest Management Branch carries out resource inventories, disease mapping and database maintenance for the Department's Sustainable Forest Management output and the Forest Products Commission. It maintains corporate resource information and GIS databases relating to forest areas in the southwest and prepares strategic resource plans.

Information Management Branch plans, coordinates and implements the Department's information systems support, and is responsible for corporate document and records management. The Branch maintains the Department's Geographic Information System, and provides a land-related information service.

Management Audit Branch reports to the Executive Director, providing audits of management systems to advise on their effectiveness, efficiency, economy and compliance with legislation, policies and procedures.

Marine Conservation Branch provides policy, strategic and scientific advice for marine conservation and management, and advises marine reserves planning teams.

Natural Resources Branch was created during the year to respond to the increasing demands in natural resource management. It is responsible for the development and coordination of the Department's natural resource management policies with a major focus on interaction with regional natural resource management groups.

It also coordinates the implementation of State Salinity Strategy programs for biodiversity conservation funded through the Department.

Nature Protection Branch sets and implements the legislative compliance standards, coordinates the legislative compliance function across Departmental outputs and the protection of Department-managed lands and waters from invasive species. It provides policy, strategic planning and advice for the protection of nature from unlawful activities, wildlife conflict and emergencies, dieback, weeds and feral animals, evaluates mining and development proposals affecting Department-managed lands and waters and advises on rehabilitation of Department-managed lands and waters.

Park Policy and Services develops policy and strategies for recreation and tourism and other commercial activities, including permits, leases and licences. It coordinates land administration and acquisition programs, and external funding opportunities. The Branch also coordinates visitor research and surveys, and maintains databases for the Parks and Visitor Services Division.

People Services Branch provides strategic planning, policy development and formulation, advice and coordination in the management of the Department's people. Services are provided by the Branch in the functional areas of personnel, payroll, labour relations, training and development, and risk management.

Perth Observatory is a group within Science Division. It has three astronomy-based core functions: research, information services and educational services.

Regional Parks Unit coordinates the management of Perth's Regional Parks, including the preparation of park management plans, implementation of landscape and design programs and completion of on-ground operational

works. The management of regional parks is undertaken in conjunction with other land management agencies such as local governments as well as the community.

Science Division provides up-to-date, scientifically sound information to uphold effective conservation and land management in Western Australia. Three science groups address the Department's scientific needs: to discriminate and document the biota, ecological processes and biological resources of the State; to conserve threatened species and ecological communities by minimising inimical processes; and to ensure that lands, waters and biological resources are used sustainably.

Strategic Development and Corporate Affairs Division is responsible for corporate planning and organisational development, and internal and external communications, marketing, advertising and community education. The Division initiates, develops and implements communication strategies to address major issues of conservation and land management, produces publications, displays and multimedia productions, designs and stages special events, coordinates the Department's media activities, provides the community with an information service, and coordinates internal communication and develops and implements school and experience-based education programs.

Threatened Species and Communities Unit coordinates and assists with Departmental programs for threatened species and communities, including preparation and implementation of recovery plans.

Visitor and Regional Services incorporates management plans, recreation planning and design, landscape management and visitor interpretation. It also coordinates community involvement, Indigenous heritage and tracks and trails for the Department.

Wildlife Branch develops policies and provides information and advice on wildlife protection and management throughout the State, administers wildlife licences and permits, enforces the *Wildlife Conservation Act 1950* and Regulations, maintains and manages databases on wildlife resources and conservation status, and ensures compliance with legislation and licence conditions.

CUSTOMER SERVICE

While fulfilling our conservation and land management responsibilities, the Department places a great deal of importance on community and customer relations. We aim to increase our customer focus and provide a range of services that meet customer needs. Our customers can expect:

- positive, courteous and friendly service;
- competent and efficient assistance;
- timely and accurate information; and
- confidentiality where commercially sensitive issues are concerned.

More specifically, our customers can expect that:

- Department staff will be well trained, competent and helpful; will wear name badges when in direct contact with the community; and will identify themselves by name when answering the telephone.
- Requests for information or assistance will be met directly or referred to the appropriate person for answering as soon as possible.
- Telephone calls to our main offices will be answered on average within six rings. Telephone messages will normally be returned by the next business day.
- A contact name, address and telephone number will be given in all correspondence for future enquiries. Where it is not possible to respond to correspondence fully, an acknowledgement will be sent, advising of the current situation and when a reply may be expected.

- Brochures and other information materials will be easily understandable, accurate and up-to-date.
- Recreational facilities in national, conservation and marine parks, reserves and State forests will be well maintained and kept clean.

DISABILITY SERVICES

Since its formation nearly twenty years ago, the Department has endeavoured to improve public access and upgrade or provide new visitor facilities and services suitable for use by all members of the community including people with disabilities. Due to the size, remoteness and ruggedness of many of WA's national and conservation parks, State forest areas and other reserves, this has not been an easy task, but the Department has made and continues to make considerable progress in implementing its "access for all" policy.

This policy is detailed in the Department's Disability Services Plan 2001–2006 and includes outcomes that reflect a focus on improving access to buildings, information, public participation mechanisms and employment, as well as visitor services and facilities. It is available on the Department's web page NatureBase and can be accessed through the Register of Disability Discrimination Act Action Plans on the Human Rights and Equal Opportunity Commission website.

In accordance with the Plan, the Department during the past year continued with its ongoing program of improving visitor access at a number of recreation areas and facilities around the State. Some of the more noteworthy access improvements completed or commenced include:

- The extensive redevelopment of the Bluff Knoll lookout and trail head in Stirling Range National Park with the provision of a new parking area with bus and disabled access bays and wheelchair accessible ramps, toilets and viewing platforms;

- Construction of a new wheelchair accessible lookout site at Molah Hill in Southern Beekeepers Nature Reserve;
- Further upgrading of the Wellington Forest Discovery Centre in Wellington National Park including the provision of accessible toilets;
- Commencement of works at Honeymoon Pool in Wellington National Park with the prefabrication of walkways and viewing decks, and the realignment and levelling of riverside trails;
- Upgrading of facilities and access within the Belvidere Picnic Area in Leschenault Peninsula Conservation Park with the installation of new accessible gas barbecues and other site furniture;
- Partial redevelopment of visitor facilities at the Rusden Picnic Area near Ten Mile Brook in Margaret River National Park, with improvements made to pathways and toilets to facilitate universal access;
- Further access improvements to coastal gorge sites in Kalbarri National Park and the development of new wheelchair accessible toilet and shelter at Hawks Head to complement the wheelchair accessible pathways and lookout developed last year;
- The resealing of the universal access pathway that encircles Big Brook Dam near Pemberton;
- The continued development of wheelchair accessible pathways and coastal viewing platforms as part of the provision of new access and visitor facilities at Pt D'Entrecasteaux near Windy Harbour; and
- The development of an accessible campers kitchen in Warren National Park.

A Disability Access Audit Online Information Program was developed in conjunction with the Disability Services Commission and implemented

in January 2002. The Program provides managers with readily accessible information on how to conduct a disability access audit in a work area, and includes checklists for access to buildings, access to information, staff awareness and public participation.

A Department-wide audit on access to buildings commenced early in 2002 and is near completion. The information provided by the audit will indicate how well the Department is currently meeting the access needs of people with disabilities and will be of considerable value in the planning of new offices and office upgrades.

An audit on the accessibility of the NatureBase website was completed and now meets all Priority 1 Key Accessibility Standards, and many Priority 2 and Priority 3 Standards developed by the World Wide Web Consortium Accessibility Initiative.

In the area of employment, a fund was established to assist in providing improved access for employees and volunteers with disabilities to work areas and housing provided by the Department. Several new strategies aimed at increasing the recruitment and retention of people with disabilities in the Department were proposed in the Department's new draft EEO and Diversity Management Plan 2003–2005, which is expected to be approved early in the 2002–2003 financial year.

EXTERNAL FUNDING

This report focuses mainly on revenue to the Department from grants or funding programs by the Commonwealth or State Government, or from sponsorship or donations. Other operating revenue (including licence fees and national parks entrance fees) are detailed elsewhere in the report.

Grants or funding programs provide a major source of financial support for the Department. The 2002–2003

financial year saw a major fall in funding for several reasons. Most funding programs under the Commonwealth Government's Natural Heritage Trust came to an end in 2001-2002, although many projects were finalised in 2002-2003 with monies carried over from 2001-2002.

Furthermore, the framework for the implementation of the Natural Heritage Trust extension was not endorsed until October 2002 resulting in only a small number of grant programs being available in 2002-2003. These included Endangered Species, Rivercare and the National Reserve System programs. In addition, the creation of the Forest Products Commission in November 2000 resulted in a shift of some funding to the Commission which was previously accounted for by this Department. Important support is also received from other Commonwealth sources, which include the Australian Biological Resources Study, Cooperative Research Centres and the Rural Industries Research and Development Corporation.

Commonwealth Funding

Year	Amount (million \$)
1995-1996	4.80
1996-1997	5.14
1997-1998	8.67
1998-1999	9.71
1999-2000	7.55
2000-2001	11.96
2001-2002	7.71
2002-2003	3.12

It should be noted that the above figures include several programs and/or projects for which the Department is a joint proponent. The figures in the table may differ from Commonwealth funding amounts shown in the financial statements. The above figures are prepared on the basis of approved program or project funding which will not necessarily reflect the timing of actual funding receipts.

Support from the State Government continued, with recurrent funding provided through programs including the Salinity Strategy (\$4.65 million), Main Roads Western Australia

(\$2 million), management of Perth's Regional Parks (\$2.39 million) and the Gascoyne/Murchison Strategy for targeted land acquisition (\$1.05 million). Government funds (as part of the Government's *Protecting our old-growth forests* policy) were also provided for the creation of new national parks and their staffing (\$4.5 million) and a further \$2.25 million for new national parks capital works and visitor services. Other State support included funding for the upgrade of Karijini and Nannup airstrips, and the redevelopment of the Matilda Bay Reserve boat ramp.

The 'Western Australian Millennium Seed Bank Flora Conservation Project' continued. This project was set up in September 2001 between the Department, the Botanic Gardens and Parks Authority and the Royal Botanic Gardens, Kew, United Kingdom. The Royal Botanic Gardens will fund the project for up to ten years, with total funds estimated to be about \$1.2 million. It will involve the collection and storage of seed from over 1400 rare or threatened Western Australian plant taxa.

The Department was actively involved with Conservation Volunteers Australian throughout the year. Activities included trail and boardwalk constructions, plantings, mudflat sampling and rehabilitation. Sites included the Cape-to-Cape Walk Trail, Lancelin, Talbot Road Reserve, Stockyard Gully National Park, Roebuck Bay and Shark Bay.

The BankWest LANDSCOPE Visa card raised about \$8,400 for the conservation of endangered species and ecological communities. Projects completed during the year included a dieback survey and mapping of two threatened ecological communities on the Swan Coastal Plain, and work on the disturbance response of the critically endangered *Grevillea maxwellii*.

The Department continued to receive valued support through corporate

sponsorship. Ongoing sponsors include Pacific Waste Management (Kalgoorlie Arboretum waste management), Edison Mission Energy Company (Leda Nature Reserve conservation) and WMC Resources (research on small carnivorous marsupials in NE goldfields). Robe River Mining Co. became a new sponsor of four research projects that will be conducted in the Pilbara Region over the next few years. The Western Shield campaign received support from the Wind over Water Foundation and Ti West Joint Venture. In addition, The Epic Energy Wildlife Conservation Challenge was launched in April 2003. This competition, open to students in Years 7,8 and 9, and sponsored by Epic Energy (in partnership with this Department and the Department of Education and Training) aims to contribute to the success of Western Shield by promoting native wildlife conservation awareness and action in schools and the local community.

The Department also benefits in small ways from all sectors of the community. These include small donations of cash into the Department's collection-boxes and through community fund raising activities, the loan of specialised tools, help with relocating animals and participation in biological surveys.

The Bibbulmun Track Foundation continued to support the Department in meeting its management obligations for the Bibbulmun Track. Their sponsors include AlphaWest, Mountain Design, Paddy Pallin and Peregrine.

CORPORATE SERVICES

Financial Services Branch

During the 2002-2003 financial year the Branch continued supporting the Oracle financial system, in-house Fleet Costing System and payroll/General Ledger interface. It also produced regular financial reports for line managers and Corporate Executive, as well as various submissions for the Department of Treasury and Finance.

Other projects undertaken by the Branch included disposal of surplus properties; provision of data for a number of whole-of-government functional reviews; further development of financial working arrangements between the Department and the Forest Products Commission; field inspection and replacement of a range of heavy fleet units; coordination and implementation of energy saving measures across Department facilities; operation of a new housing loan subsidy scheme for staff in remote locations; training of staff regarding purchasing procedures; production of a range of new reports to support the internal Output-Purchaser-Provider management framework; increasing the proportion of payments made by EFT rather than cheque; introduction of an e-mail remittance advice system and upgrades of various software systems.

People Services Branch

Workforce Services and Planning

Section: The Workforce Services and Planning Section underwent a restructure in March providing for the streamlining of communication channels and processes, greater team integration, better management of section workloads and the provision of improved customer service.

All leave entitlements were individually updated to include leave loading on annual leave for employees covered by the Government Framework General Agreement. The inclusion of short and public service holiday leave entitlements were also completed.

Pay increases, including calculation of arrears, were processed for AWU, PSA, Engineering, National Park Ranger and Visitor Centre staff.

After a great deal of planning and testing during the year, a two-year contract for the provision of technical support for the Department's Human Resource Management Information System (Concept) by the application provider is due to commence in August 2003. An upgrade of Concept to version 8.06 will occur at the same time.

Premiers Circular 2002/17 was issued in October 2002 and provides for the conversion of fixed-term contract employees to permanent status. To date, 30 employees have achieved permanency via this process.

Throughout the Department, 48 salaried staff achieved career advancement through promotion via advertised vacancies last year. Eleven salaried staff were reclassified into higher-level positions and five achieved advancement through criteria progression.

There were no breaches found in relation to any of the Public Sector Standards in Human Resource Management or the Department's Code of Conduct.

Two-hundred and forty-six of the Department's managers and supervisors completed the online self-paced interactive training course on Workplace Discrimination and Sexual Harassment – Legal Compliance. New managers and supervisors will be required to complete the course during 2003–2004.

Twelve new Grievance Contact Officers were trained in June and have joined the Grievance Contact Officer Network – there are now Grievance Contact Officers in all Regions and most Divisions of the Department.

A draft EEO and Diversity Management Plan was prepared with the Equity and Diversity Sub-Committee and Taskforce. This plan affirms the Department's commitment to achieving greater workforce diversity. It contains strategies that provide for the effective management of the Department's diverse workforce, and will assist the Department in meeting performance objectives identified in the Equity and Diversity Plan 2001–2005. Though Indigenous Australians and women have been identified in the plan as two key groups, the plan's strategies aim to maximise the potential and well-being of all employees. It is anticipated that the plan will be approved early in the 2003–2004 financial year.

Organisational Learning and

Development Section: Seventeen recruits graduated in May 2003 after completion of 12 weeks competency-based training delivered over a two-year period. Training programmes cover a range of nature conservation and park management initiatives and are nationally recognised by the Training Accreditation Council. Thirteen of the graduating officers have achieved permanent appointments with the Department with the remaining four appointed to the Forest Products Commission.

Twenty-six Departmental people were awarded scholarships from six internal scholarship programmes, which promote continuous learning in a range of academic disciplines that include science, business, leadership and management.

Twenty Departmental people also successfully completed the Leadership and Organisational Development program during the past financial year. The program is designed to provide employees with the necessary tools to address areas of leadership, change management and project management. The program features a multi-faceted approach incorporating theory, experiential learning and more importantly collegial learning. Murdoch University delivered the programs.

Ten Department people successfully completed the internationally recognised Certificate IV Effective Manager course, which offers formal qualifications in management. Eight of these graduates furthered their studies into the Diploma of Management course. A further 12 Departmental people enrolled in the Certificate IV in Government course and 13 people entered into the Diploma of Business course for 2003. Currently there are 40 wages employees enrolled in the Conservation and Land Management Training package being jointly administered by the Department and TAFE.

The Department also made significant progress with the Aboriginal Employment Strategy. A partnership with the Federal Department of Employment and Employee Relations (DEWR) was announced, which will see 25 Aboriginal Trainees graduate from the Conservation and Land Management Training Package over a six year period. These graduates will be employed in field officer positions throughout the State. Currently 16 trainees are employed, leaving the opportunity to employ a further nine in 2004.

A further seven cadets are sponsored by the Department whilst undertaking tertiary studies. This programme is part of the National Indigenous Cadetship Programme that provides funds for the student during the forty weeks of academic study, and placement with the Department for the remaining twelve weeks whilst on semester breaks and between academic years.

The Department is working to develop learning programmes on-line to provide equity of access to all employees regardless of location.

Employee Relations Section:

Enterprise agreements were concluded with the Australian Federation of Air Pilots for pilots (November 2002), the Metal Trades Union for mechanics (January 2003), the Australian Workers Union for construction and maintenance employees (February 2003) and visitor centre employees (May 2003), and with the Civil Service Association for public service fire service provisions and flexible working arrangements (March 2003). The majority of agreements expire on 31 December 2003, with the exception of public service fire service provisions (30 June 2003), pilots (20 November 2004) and public service flexible working arrangements (31 December 2004). With the exception of fire service provisions, negotiations for replacement agreements are due to commence six months prior to the respective expiry dates. A joint working party, which includes

representation from affected unions, has commenced negotiations aimed at introducing common employment conditions for fire service.

The Australian Industrial Relations Commission approved a simplified Australian Workers Union (WA Public Sector) award on 25 November 2002 and the Western Australian Industrial Relations Commission approved an updated ranger classification structure on 11 February 2003.

There were no disputes referred to either the Australian or the Western Australian Industrial Relations Commissions.

Risk Management Section: This section is responsible for developing and implementing risk management policies and procedures in respect of occupational safety and health; corporate health and fitness; workers' compensation; injury management; general liability and the corporate insurance portfolio.

In the area of occupational safety and health, the Department achieved gold status in the Industrial Foundation for Accident Prevention (IFAP) Safe Way Awards. Gold status recognises only the most outstanding of systems, procedures and performance in occupational safety and health.

The IFAP Safe Way Awards further acknowledge excellence in the field of occupational safety and health, and are designed for organisations whose commitment to these can be measured by the effectiveness of their occupational safety and health management systems.

To achieve gold status, organisations must be able to demonstrate "best practice" in their management system. The rating method also requires the application of continuous improvement processes across the integral components of the system.

Occupational Safety & Health Performance Indicators

	2002-03	2001-02
Lost Time Injury Frequency Rate	11	10
All Injury Frequency Rate	36	37
Number of Lost Time Incidents	29	24
Average Days Lost per (LTI) Workers' Compensation	10	5
Premium	\$739,886	\$600,408

Information Management Branch

Information Services Section continued the upgrade of the Department's communication network and regional servers, resulting in improved access by remote offices and work centres for information exchange and knowledge sharing. In recognition of this, the Department received the Western Australian Information Technology and Telecommunications Award for Infrastructure. Implementation has also commenced on a new Information Technology and Telecommunications Strategic Plan.

Corporate Information Section has undertaken work to ensure the Department's compliance with the new State Records legislation, including the development of a training package. Implementation of a corporate Keyword Classification Thesaurus continued as part of a project to replace the Department's existing records management system with an Electronic Document and Records Management System.

The Geographic Information Services Section provided spatial data and mapping support for regional operations throughout the Department, including training and support in desktop geographic information systems (GIS). In addition, atlases were provided to regional offices and digital spatial data was distributed on compact disk, including the cadastre and georeferenced versions of the Department's operations maps.

A project commenced to establish a corporate spatial data warehouse and provide web-based access to centrally managed geographical information for all divisions within the Department.

The section continued to provide GIS support for processes involved in the establishment of new national parks in the southwest of the State. Data and assistance were provided to support the development of Natural Resource Management and the State Salinity Strategy programs, and for the preparation of the Forest Management Plan. GIS assistance was also provided to support the conservation reserve acquisition program.

Three new Land Management Series sheets were published, and new maps were also produced for the Bibbulmun Track, Munda Biddi Trail and a variety of other map publications. Remote sensing technology was employed to map fire history over selected areas of the State, for vegetation monitoring within the Pilbara and for forest density mapping over the southwest of the State. The Department continued to participate in the Landsat-based Land Monitor project.

WASTE PAPER RECYCLING

The Department follows the State Government's policy to recycle all waste paper generated by government metropolitan agencies and utilises the 'Whole of State Government Contract' administered by the Department of Industry and Technology for Waste Paper Recycling.

The primary objectives of the contract are to:

- improve waste management and recycling practices within the public sector;
- maximise the volume of waste paper collected from all metropolitan agencies for recycling;

- reduce the volume of waste paper going to landfill; and
- help foster recycling within the community.

During the 2002–2003 financial year, the Department provided 9,285 tonnes of paper for recycling under the contract.

ELECTORAL ACT 1907

In accordance with the requirements of Section 175ZE of the *Western Australian Electoral Act 1907*, the Department incurred the following expenditures in the financial year ended 30 June 2003.

Advertising Agencies:
\$2,806.82 (John Davis Advertising) and \$6,128.10 (Effective Advertising Marketing)

Media advertising organisations:
\$243,441.63 (Marketforce Productions) and \$32,986.55 (Media Decisions WA).

There was no expenditure in the market research, direct mail and polling areas by the Department.

Total expenditure was \$285,363.10.

ENERGY SMART GOVERNMENT PROGRAM

In accordance with the Energy Smart Government policy the Department committed to achieve a 12% reduction in non-transport related energy use by 2006–2007 with a 5% reduction targeted in 2002–2003.

During the year the following energy initiatives were undertaken:

- an Energy Executive was appointed;
- staff awareness campaigns were conducted;
- areas of responsibility for energy conservation throughout the Department established; and
- implementation of recommendations of an energy audit conducted in January 2002 on the Operations Headquarters and Swan Region Headquarters in Kensington commenced together with a range of other energy conservation initiatives at other departmental facilities.

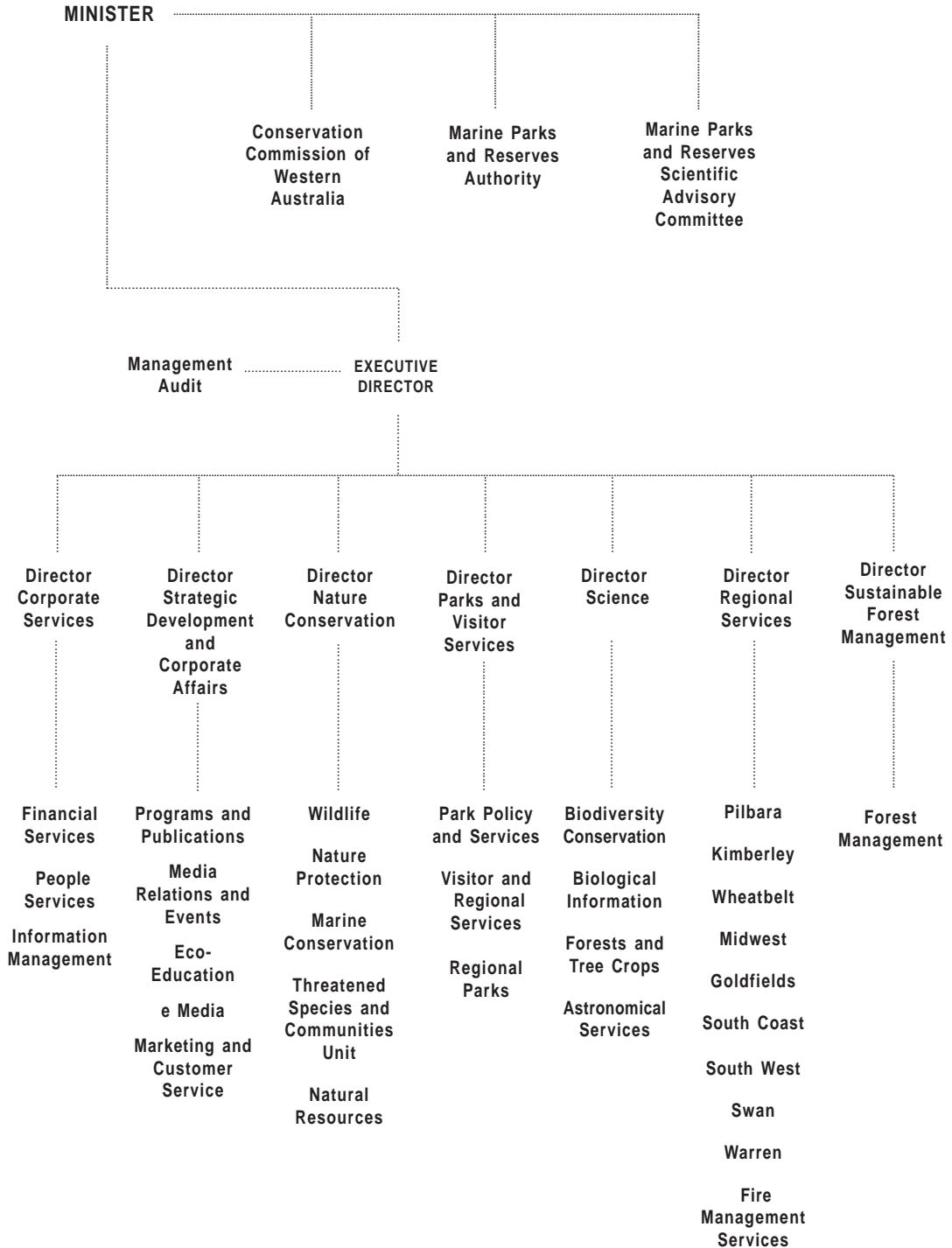
Many of these initiatives were implemented throughout the year; consequently the full impact of the initiatives will be reflected in subsequent years.

Energy Smart Government program	Baseline Data	2002–2003 Actuals ##	Variation %
Energy Consumption (MJ)	23,434,135	23,896,000	1.97
Energy Cost (\$)	915,053	951,956	4
Greenhouse Gas Emissions (tonnes of CO2)	4,247	4,192.3	-1.29
Performance Indicators by End Use Category			
<i>Office – Combined Services</i>			
MJ/sqm	219	297	
MJ/FTE	10,207	10,335	
<i>Office – Tenant Services</i>			
MJ/sqm	264	74	
MJ/FTE	7,784	5,836	
<i>Laboratories – MJ/sqm</i>			
	415	435	
<i>Public Buildings – MJ/sqm</i>			
	492	232	
<i>Parks & Wildlife Facilities# –MJ</i>			
		8,272,000	
<i>Other Buildings# – MJ/sqm</i>			
		14.68	
<i>Other Uses – MJ</i>			
	11,011,273	880,000	
<i>Residential Buildings# – MJ/occupant</i>			
		8,119	

New reporting categories.

Some figures may vary slightly as final accounts are received.

FIGURE 1 ORGANISATIONAL STRUCTURE



CORPORATE EXECUTIVE (as of 30 June 2003)

EXECUTIVE DIRECTOR

K J McNamara* B Nat Res (Hons)

DIRECTOR, CORPORATE SERVICES

J C Byrne MBA, PhD, FCPA

DIRECTOR, NATURE CONSERVATION

G J Wyre* B Nat Res (Hons)

DIRECTOR, PARKS AND VISITOR SERVICES

J R Sharp B Ed, Dip PE, M Ed

DIRECTOR, REGIONAL SERVICES

A W Walker BSc For (Hons)

DIRECTOR, Science

N D Burrows BSc For, PhD

DIRECTOR, STRATEGIC DEVELOPMENT AND CORPORATE AFFAIRS

R A Kawailak BA, FPRIA

DIRECTOR, SUSTAINABLE FOREST MANAGEMENT

C Bailey*

OTHER SENIOR STAFF

REGIONAL MANAGER, GOLDFIELDS

I G Kealley BSc

REGIONAL MANAGER, KIMBERLEY

C C Done BSc

REGIONAL MANAGER, MIDWEST

K Gillen BSc (Hons)

REGIONAL MANAGER, PILBARA

C Muller Dip For, BSc For

REGIONAL MANAGER, SOUTH COAST

J R Watson BSc, Grad Dip Rec, PhD

REGIONAL MANAGER, SOUTH WEST

R Chandler BSc

REGIONAL MANAGER, SWAN

A Sands BAppliedSc, Grad Dip Nat Res

REGIONAL MANAGER, WARREN

P Keppel Cert For Mngmt

REGIONAL MANAGER, WHEATBELT

B H Bone BApplied Sc Nat Res, Dip Mgmnt

MANAGER, BIODIVERSITY

CONSERVATION GROUP

K D Morris BSc, MSc

MANAGER, BIOLOGICAL INFORMATION GROUP

N G Marchant BSc (Hons), PhD

MANAGER, FINANCIAL SERVICES BRANCH

M J Neilson BA, MAcc, CPA

MANAGER, FIRE MANAGEMENT SERVICES

R Sneeuwjagt BSc, MSc

MANAGER, FORESTS AND TREE CROPS GROUP

J F McGrath BSc (Hons), PhD

MANAGER, FOREST MANAGEMENT BRANCH

M Rayner BSc For (Hons), PhD

MANAGER, INFORMATION MANAGEMENT BRANCH

C J Pearce BSc (Hons), PhD

MANAGER, MANAGEMENT AUDIT BRANCH

P Jones BSc For

MANAGER, MARINE CONSERVATION BRANCH

C J Simpson B App Sci (Biol), G Dip Nat Res, PhD

MANAGER, NATURAL RESOURCES BRANCH

K J Wallace Dip Ed, BSc (Hons)

MANAGER, NATURE PROTECTION BRANCH

D Mell* B App Sc

MANAGER, PARK POLICY AND SERVICES

C B Ingram B App Sc

MANAGER, PEOPLE SERVICES BRANCH

C W Gillam BA (Hons), MA, PG Dip Bus, AFAHRI

MANAGER, PROGRAMS & PUBLICATIONS

S McKenna*

MANAGER, REGIONAL PARKS

T Bowra BSc

MANAGER, WA THREATENED SPECIES & COMMUNITIES UNIT

J Blyth* BSc (Hons)

MANAGER, VISITOR AND REGIONAL SERVICES

G Mackay BEd (Env Sc), B App Sci (Parks & Wildlife)

MANAGER, WILDLIFE BRANCH

K Atkins* BSc (Hons), PhD

PRINCIPAL MEDIA RELATIONS OFFICER

N Higgs

SCIENCE ADVISER

I J Abbott BSc (Hons), PhD, DSc

GOVERNMENT ASTRONOMER

J Biggs BSc (Hons), PhD

* Acting

Public Sector Standards and Code of Conduct Compliance Statement

In the Administration of the Department of Conservation and Land Management, I have complied with the Public Sector Standards in Human Resource Management, the Western Australian Public Sector Code of Ethics and the Code of Conduct.

The Department of Conservation and Land Management has adopted guidelines and processes supporting the public sector standards in human resource management. I am pleased to say there were no breach findings made against any standard for the reporting period 2002–2003.

Policies and supporting procedures are in the People Services Manual, which, like the Code of Conduct is accessible to most staff on-line via the Department's intranet. Hard copy or CD-ROM versions can be made available to those staff in remote areas who have difficulty accessing the intranet at present.

Individual managers are responsible for ensuring compliance with the Departmental policies and the Code of Conduct, with the Manager, People Services Branch undertaking a monitoring and advisory role. In addition, staff in Workforce Services and Planning section monitor all transactions for recruitment, selection and appointment, secondment, transfer, temporary deployment, performance management and grievance resolution to ensure current Departmental policy is adhered to. Staff in the Employee Relations section are responsible for termination and disciplinary cases.

Management Audit Branch in accordance with the Department's policy has undertaken an annual system review with a complete compliance audit on three of the standards. The audit identified that:

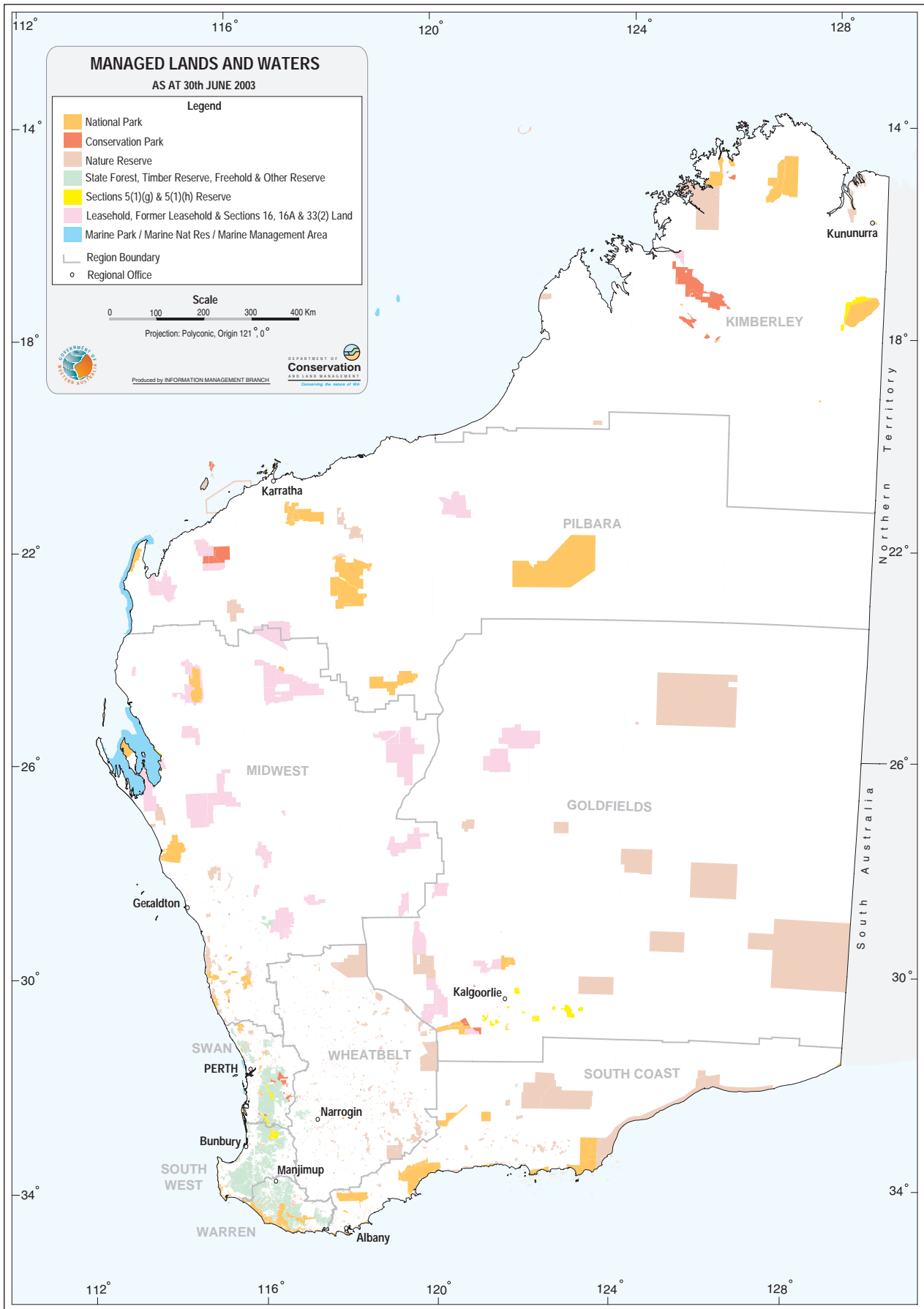
- the Department's policies and procedures identified with and reflected the standards requirements;

- compliance with the standards was satisfactory; and
- there was no evidence of non-compliance with any standards.

The Department's Code of Conduct had minor changes made to it in 2002 due to amendments to the *Equal Opportunity Act 1984*. A broadcast e-mail with a link to the updated Code was sent out to all staff in September 2002 advising them of the changes and asking managers to ensure all staff were made aware of these. A complete review of the Department's Code of Conduct is scheduled for 2003–2004.

Keira McNamara

Keiran McNamara
Acting Executive Director
29 August 2003



LANDS AND WATERS

Total Estate

As at 30 June 2003 the total area under CALM's care was 24,707,416 hectares representing an increase of 522,218 hectares during 2002 –2003.

The terrestrial area (ie not including marine reserves) is approximately 9.3% of the land area of Western Australia.

The table below provides a summary of all tenure classifications.

National Parks

National parks are for wildlife and landscape conservation, scientific study, preservation of features of archeological, historic or scientific interest, and enjoyment by the public. They have national or international significance for scenic, cultural or biological values.

The area of the 69 national parks at 30 June 2003 was 5,095,378 hectares, a net increase of 178 hectares for the year. Changes were increases to Greenmount National Park (144 ha) and Yanchep National Park (34 ha).

Conservation Parks

Conservation parks have the same purpose as national parks, but they do not have the same national or international significance. They have significant local or regional value for conservation and recreation.

The area of conservation parks at 30 June 2003 remained unchanged at 704,216 hectares.

Nature Reserves

Nature reserves are for wildlife and landscape conservation, scientific study, and preservation of features of archeological, historic or scientific interest. Recreation that does not harm natural ecosystems is allowed.

The area of nature reserves at 30 June 2003 was 10,827,256 hectares, representing a net increase of 2,217 hectares for the year. A notable addition was to Woody Lake Nature Reserve (48 ha). New nature reserves created during the year resulting from purchases included one about 37km north of Gingin (519 ha), one south of Kulin (297ha) and two southwest of Lake Grace (456ha and 271ha).

State Forest

State forests are managed for multiple purposes, including water catchment protection, recreation, timber production on a sustained yield basis, and conservation. Provision is also made for public utilities and mineral production, where these activities are imposed. Within State forests, designated areas are managed for specific purposes, such as conservation or optimum yield of exotic plantings.

The area of State forest at 30 June 2003 was 1,729,974 hectares, a net increase for the year of 25 hectares.

Timber Reserves

Timber reserves declared under the *Conservation and Land Management Act 1984* are managed on the same basis as State forests. The category is often transitional; as reserves are evaluated they may be changed to a more appropriate tenure, eg. State forest or nature reserve.

The area of timber reserves at 30 June 2003 remained unchanged at 141,434 hectares.

Department-Managed Lands and Waters (ha) by Region as at 30 June 2003

Tenure Classification	South West	Goldfields	Kimberley	Midwest	Pilbara	South Coast	Warren	Swan	Wheatbelt	Total
National Park	31,836	151,009	829,773	504,845	2,396,627	891,810	243,150	45,036	1,292	5,095,378
Conservation Park	581	33,517	460,232	3,750	149,309	-	-	56,570	257	704,216
Nature Reserve	9,934	6,304,112	809,783	738,198	250,595	1,585,540	33,047	51,533	1,044,514	10,827,256
Marine Park	-	-	23,250	748,735	225,564	-	-	16,391	-	1,013,940
Marine Nature Reserve	-	-	-	132,000	-	-	-	-	-	132,000
Marine Management Area	-	-	-	-	-	-	-	-	-	-
State Forest	656,429	781	-	-	-	4,055	544,119	496,524	28,066	1,729,974
Timber Reserve	33,765	28,576	-	26,338	-	5,231	19,023	28,501	-	141,434
Sections 5(1)(g) & 5(1)(h) Reserve	30,282	81,593	79,623	2,318	8,131	<1	637	27,441	588	230,613
Miscellaneous Reserve	358	<1	61	517	1,779	3,814	343	5,946	15	12,833
Freehold(Exec Dir)	21,343	<1	1	<1	<1	63	4,918	275	1	26,601
Leasehold (Exec Dir), Former Leasehold & Section 33(2) Managed Land	-	1,216,829	35,625	2,732,672	792,035	-	-	-	-	4,777,161
Sections 16 & 16A Managed Land	121	215	-	7,020	-	-	-	8,654	-	16,010
Totals	784,649	7,816,632	2,238,348	4,896,393	3,824,040	2,490,513	845,237	736,871	1,074,733	24,707,416

Source: Information Management Branch

Marine Reserves

Marine parks are managed for conservation and recreation, with areas zoned for commercial fishing on a sustained yield basis. Marine nature reserves are managed for the conservation of marine and terrestrial flora and fauna and their habitats. Fishing and collecting are not permitted.

The area of marine parks at 30 June 2003 was approximately 1,013,940 hectares. The area of marine nature reserves at 30 June 2003 was approximately 132,000 hectares. There were no changes during the year.

Marine management areas will provide a formal integrated management framework over areas that have high conservation value and intensive multiple use, selected primarily on the basis of their biological and recreational values and their existing or future commercial activities.

As yet no marine management areas have been proclaimed.

Section 5(1)(g) and 5(1)(h) Reserves

Within the meaning of the *Conservation and Land Management Act 1984*, lands categorised as sections 5(1)(g) and 5(1)(h) reserve are lands reserved under the *Land Act 1933* and the *Land Administration Act 1997* respectively. Unlike national parks, conservation parks and nature reserves, they are not automatically vested in the Conservation Commission. Immediately before the commencement of the *Conservation and Land Management Act 1984*, some were vested in, or were under the control of, the National Parks Authority but not as a national park, eg. Matilda Bay Reserve. Predominantly they have conservation/recreation purposes.

The area of sections 5(1)(g) and 5(1)(h) reserves at 30 June 2003 was 230,613 hectares, an increase for the year of 4 hectares.

Miscellaneous Reserves

There are some remaining reserves managed by the Department, which do not fall within any of the above discrete categories. The purposes of reserves within this category are varied and may include settlements and Departmental offices. The area of miscellaneous reserves at 30 June 2003 was 12,833 hectares, representing an increase of one hectare for the year.

Other Land

The area of freehold land held by the Executive Director at 30 June 2003 was 26,601 hectares, a net decrease of 3 hectares for the year. Softwood forests occupy the major portion of freehold land held by the Executive Director.

The area of pastoral lease held by the Executive Director at 30 June 2003 was 225,705 hectares. In addition, a further 4,432,803 hectares of former pastoral lease land is being held under an interim management arrangement prior to formal reservation.

National Parks Vested in the Conservation Commission of Western Australia

NAME	AREA (ha)	NAME	AREA (ha)	NAME	AREA (ha)
Alexander Morrison	8,500	Hassell	1,265	Serpentine	4,357
Avon Valley	4,366	<i>Hidden Valley</i>	2,068	Shannon	52,598
Badgingarra	13,121	John Forrest	2,676	Sir James Mitchell	497
Beedelup	1,786	Kalamunda	375	Stirling Range	115,920
Boorabbin	26,000	Kalbarri	183,004	Stokes	9,726
Brockman	49	Karijini	627,442	Tathra	4,322
Cape Arid	279,382	Kennedy Range	141,660	Torndirrup	3,936
Cape Le Grand	31,801	<i>Lawley River</i>	17,254	Tuart Forest	2,049
Cape Range	50,581	Leeuwin-Naturaliste	18,779	<i>Tunnel Creek</i>	91
Collier Range	235,162	<i>Lesmurdie Falls</i>	56	<i>Un-named</i>	1,571
D'Entrecasteaux	116,686	Lesueur	26,966	<i>Un-named</i>	16,039
Drovers Cave	2,681	Millstream-Chichester	199,736	Walpole-Nornalup	19,072
Drysdale River	448,264	<i>Mitchell River</i>	115,325	<i>Walyunga</i>	1,812
<i>Eucla</i>	3,560	Moore River	17,254	Warren	2,982
Fitzgerald River	329,882	Mount Augustus	9,168	Watheroo	44,474
Francois Peron	52,587	Mount Frankland	30,830	<i>Waychinicup</i>	3,982
Frank Hann	67,550	Nambung	18,362	Wellington	3,045
Geikie Gorge	3,136	Neerabup	1,060	<i>West Cape Howe</i>	3,517
Gloucester	876	Peak Charles	39,959	William Bay	1,734
<i>Goldfields Woodlands</i>	64,612	Porongurup	2,621	Windjana Gorge	2,134
Goongarrie	60,397	Purnululu	239,723	Wolfe Creek Crater	1,460
Gooseberry Hill	33	Rudall River	1,283,706	Yalgorup	13,090
Greenmount	202	Scott	3,273	Yanchep	2,876
TOTAL					5,095,378

* Names shown in italics are not yet gazetted

Crown land placed under the management of the Department under section 33(2) of the *Conservation and Land Management Act 1984* as at 30 June 2003 totalled 118,653 hectares. Of this, 406 hectares comprises unvested Crown reserve. The remainder is land proposed for addition to the conservation estate, which is managed accordingly under an interim arrangement.

Two areas, parts of Credo and Boolardy Pastoral Leases, totalling 7,235 hectares are currently managed under section 16A of the *Conservation and Land Management Act 1984* by agreement between the lessees and the Department.

The area of freehold land managed by the Department under section 16 of the *Conservation and Land Management Act 1984* at 30 June 2003 was 8,775 hectares. Most of this land falls within regional parks and is managed by agreement between the Western Australian Planning Commission and the Department.

Conservation Land Acquisitions

The Department acquired over 521,690 hectares of land of high conservation value during the year for future addition to the conservation estate. Priorities for purchase are for those areas containing ecosystems, which are not adequately reserved in the existing conservation reserve system, and additions to existing reserves, which would greatly improve their diversity or facilitate their management. Funds for conservation land acquisitions were obtained from four sources: the Department's annual capital allocation; an allocation under the Gascoyne-Murchison Strategy; the National Reserve System component of the Natural Heritage Trust; and some funding from the Crown reserves component of the State Salinity Strategy. The total expenditure from all funding sources for the financial year was more than \$2.95m.

With funds allocated under the Gascoyne-Murchison Strategy, the Giralia Pastoral Lease at the southern end of Exmouth Gulf and part of the Wanna Pastoral Lease, northwest of Mt Augustus National Park within the Shire of Upper Gascoyne, were purchased covering a combined total area of 519,700 hectares.

Acquisitions outside the Gascoyne-Murchison Strategy area included the following: two parcels of remnant vegetation in the Shire of Gingin supporting declared rare and priority flora totalling more than 525 hectares; 193 hectares of remnant vegetation situated in the upper reaches of Donkey Creek north-east of Eneabba; 24 hectares east of Busselton supporting the Southern Ironstone Threatened Ecological Community; 408 hectares of remnant vegetation and a freshwater wetland east of Geraldton; about 40 hectares adjoining the Lesueur National Park; 726 hectares in the Lake Bryde Recovery Catchment north-east of Pingrup in the south-eastern Wheatbelt; and an 81 hectare enclave within the Lane Poole Reserve supporting most of Lake Yourdamung.

The Department gratefully acknowledges the significant contribution made by the Commonwealth Government through the National Reserve System component of the Natural Heritage Trust, which supported the majority of the above purchases. This year this contribution amounted to more than \$1.65m. This support will continue to help with making significant progress towards the establishment of a comprehensive, adequate and representative reserve system in Western Australia.

In addition to the above acquisitions, a 122 hectare parcel of land within the Shire of Chapman Valley was kindly bequeathed to the Department by the late Jean McGauran. The land will be set aside as a reserve for the purpose of 'Conservation and Seed Orchard'.

FIRE MANAGEMENT SERVICES

Wildfires 2002–2003

The 2002–2003 fire season in the southern half of Western Australia was one of the most severe experienced in 42 years, when wildfires in 1960–61 saw the destruction of southwest settlements including Dwellingup, Karridale, Holyoake and Nanga.

As in the past four years, much of Western Australia this year experienced drought conditions, which greatly increased the dryness and flammability of ground fuels and vegetation. No significant rainfall occurred in the period from late October 2002 to May 2003. This was reflected in the Soil Dryness Index, which is an indicator of seasonal dryness of soil and large forest fuel components. As a result, fire behaviour during the Spring burning period was much more intense and difficult to control than normal. Extensive and frequent lightning storms occurred throughout the summer months resulting in a six-fold increase in the number of lightning caused fires.

The summer weather was characterized by extended periods of very hot, dry and windy conditions, which caused fire danger levels to be Very High or Extreme on many occasions. The resultant fire behaviour during these days was extremely intense especially where fires burned in long unburnt vegetation.

During the fire season, the Department's fire fighting forces attended 620 wildfires that burnt around 1.2 million hectares of Crown lands and private lands in the area between Geraldton and Esperance. Several of these large fires occurred away from Department-managed lands, and Departmental forces provided support to bushfire brigades from local government authorities.

In the southwest forest regions, the Department as lead fire agency

suppressed 549 wildfires covering 139,744 hectares, of which 126,212 hectares was on Department-managed lands. The area of wildfires represents an eight-fold increase on the average over past years.

Rapid response by aerial and ground based suppression forces enabled 75% of these wildfires to be contained to less than 10 hectares, and 87% to less than 100 hectares. A large proportion of these fires were kept small because they burned into low fuel and recently burnt areas.

About 8% of wildfires exceeded 1,000 hectares. These fires were usually burning in remote areas where access for containment was difficult, or where high fuel loads had accumulated in long unburnt areas.

Major Fires for 2002–2003 Fire Season

Major fires of 2002–2003 and their impacts:

- Cape Arid National Park and adjoining Unallocated Crown lands were affected by a number of fires in October and November 2002, which burnt approximately 130,000 hectares.
- A complex of large fires in the proposed Walpole Wilderness Area occurred in November and December 2002 affecting 24,000 hectares of woodlands and wetlands. Some private property assets north of Denmark were damaged.
- Forty-two lightning strikes in the northern forests, east of Perth, on 22 and 23 December 2002 stretched resources of the Department and Bushfires Brigades. All of the fires were contained to relatively small sizes.
- Jurien Bay and Cervantes were affected by three large wildfires just before Christmas 2002. The fires started from lightning strikes and burnt a total of 53,000 hectares. The town sites of Jurien Bay and

Cervantes were threatened by the fires at various times, but were protected by intensive and strategic fire combat operations.

- A fire at Mount Cooke, 60-km south east of Perth, resulted from a lightning strike on 9 January 2003 and burnt approximately 18,000 hectares of conservation land and State forest. Two campsites and associated structures were destroyed. The fire was contained within areas of low fuel – the result of previous prescribed burns and a wildfire in past seasons.
- Lightning caused fires on 9 March 2003 in the proposed Walpole Wilderness Area, 45 kilometres northeast of Walpole. One large wildfire burnt 29,000 hectares.
- More than 30 lightning strikes on 22 and 23 March 2003 resulted in a complex of wildfires from Wilbinga (near Yanchep) throughout the forest regions to near Walpole on the south coast. The Wilbinga wildfire burned 4,875 hectares and threatened the Two Rocks township. Four lightning strikes near Broke Inlet burnt 24,400 hectares within the D'Entrecasteaux National Park.

Of the total of 656 wildfires that affected lands managed by the Department throughout the State, the main cause of ignition was lightning strikes (42%) and deliberately lighting (26%). Other causes included accidental (6%), escapes (7%) and unknown (19%) from private lands. There was a dramatic reduction in the number of arson fires particularly in the Swan Coastal District as a result of a concentrated fire prevention program involving Police and local authorities.

Escapes from Departmental burns represented 1% percent of all wildfire numbers. Two of these fires were in the Walpole area in November 2002 when extremely hot and dry conditions combined with strong, gusting winds, caused re-ignitions of unburnt pockets inside two burns that were carried out several weeks earlier.

The cost of suppressing wildfires on the State's conservation lands was \$12.3 million. This represented approximately a three-fold increase on the average costs over the past five years and was largely due to the high number of large wildfires and the difficulty of controlling and securing these fires in the very dry fuels and severe weather conditions.

Despite the very demanding and hazardous conditions that were experienced with wildfire suppression and prescribed burning operations there was one instance in which a fire crew member was seriously injured.

Prescribed Burning

Each year the Department plans to undertake prescribed burning on Department-managed lands for three primary purposes, which are not necessarily mutually exclusive. These purposes are (a) to protect and conserve biodiversity values and community assets, (b) to reduce occurrence and impacts of large, intense wildfires and (c) to regenerate and protect forest ecosystems following harvesting operations or other disturbances.

In order to meet these objectives, the Department's Master Burn Plan provides for an annual prescribed burning program in the southwest forest regions of around 200,000 hectares, of which 20,000 to 40,000 hectares is for silvicultural purposes associated with timber harvest activity.

The severe drought conditions experienced throughout the year again seriously limited the number of safe and suitable burning days. The dryness of the ground litter and vegetation fuels meant that many of the prescribed burns planned for the spring/early summer and autumn months were cancelled or postponed because of the risk of escapes or severe fire behaviour.

The prescribed burns conducted by the Department were scheduled and ignited to take advantage of favourable wind and atmospheric conditions that allowed smoke to move away from population centres. The Department in conjunction with the Bureau of Meteorology and the Department of Environmental Protection developed and applied a smoke management decision process that ensured the incidence of excessive smoke haze in the Perth metropolitan area from prescribed fire was reduced significantly over the past ten years. These smoke management constraints have also had a significant impact on the burning program achieved by restricting the number of days available to burn safely and effectively. Throughout the southwest, the Department completed approximately 144,835 hectares (159 burns) of prescribed burning on Departmental-managed lands. Fourteen per cent of burns were completed in July to August 2002, 40% of burns were completed in the September to December 2002 period, 4% in the January to March 2003 and 42% in April to June 2003.

A total of 3,909 hectares of pine plantation (*Pinus Pinaster*) near Wanneroo and Yanchep was prescribed burnt in winter and early spring 2002.

A further 433 hectares of pine burning was completed near Myalup.

The impact of drought conditions and other burning constraints was such that the Department achieved approximately 60% of the overall target in the southwest forest regions over the past five years.

The figure below shows the achievement of prescribed burning in the southwest forest regions from 1985–1986 to 2002–2003.

The total areas prescribed burned in regions outside of the southwest regions was: Kimberley (91,524 ha), South Coast (11,187 ha), Midwest (6,370 ha) and Wheatbelt (394 ha). No burning was undertaken in the Goldfields and Pilbara Regions.

Aerial Water Bombing Operations

Six fixed-wing water bomber aircraft (Dromaders) were contracted during the summer months of the 2002–2003 fire season to provide rapid suppression capability in the Perth outer metropolitan area and the southwest regions. Pairs of Dromader aircraft were based at three locations (Perth, Bunbury and Manjimup) to provide an aerial rapid-attack capability to assist ground-based fire crews. In addition, FESA contracted 2 light helicopters

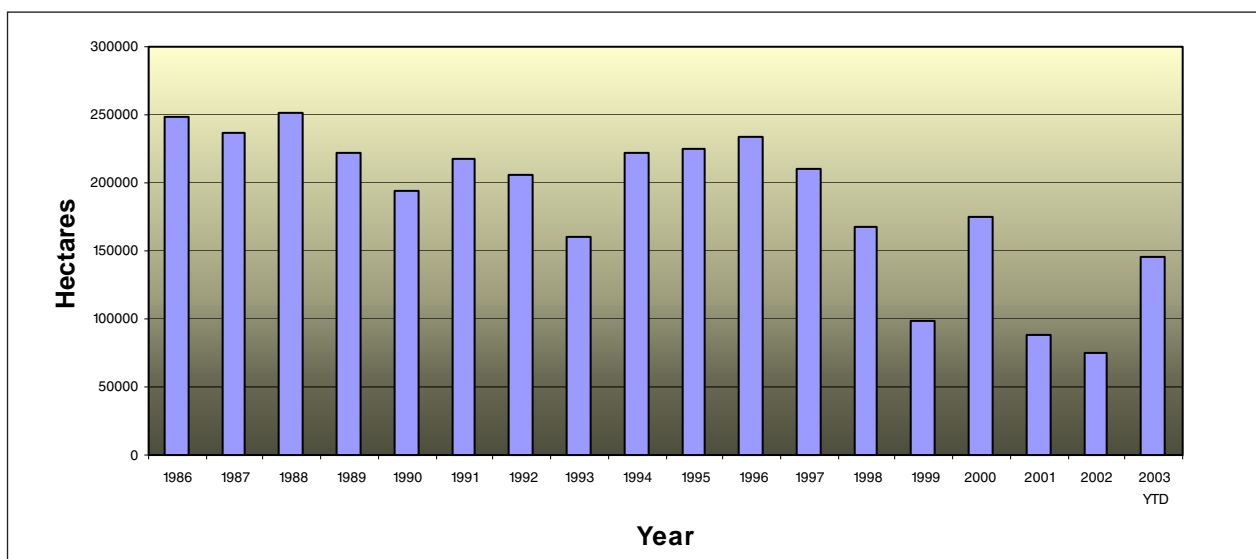
(helitankers) to provide coverage for the Perth urban and rural-urban interface areas.

The six fixed-wing water bomber aircraft attended a total of 166 wildfires in the southwest stretching from Jurien Bay to Albany. These aircraft dropped 1151 loads (2,500 litres each) delivering a total of about 2.8 million litres of water and foam. The water bombers flew a total of 642 operational hours. The Air Attack Supervisor aircraft flew 408 hours. These aerial operations were completed without any safety incidents.

An evaluation on the effectiveness of the six fixed-wing water bombers in containing wildfires revealed that these aircraft were responsible for saving public and private assets and natural resources worth around \$10.6 million.

Fire Training

A total of 36 fire training courses involving 588 participants were conducted by the Department's Fire Management Services training staff covering the following topics: Incident Control System; Advanced Incident Leadership; Logistics Management; Incident Planning; Prescribed Burning; Fire Management; Advanced Fire Fighter; Sector/Divisional Commander; Management Support; Resources Unit



Prescribed Burning 1985–86 to 2002–2003 in Southwest Forest Regions (hectares)

Management; Situation Unit Management; Basic Fire Fighter; Pilot training; Air Attack Supervisors; Water bombing Support. Fire courses were also conducted for new Departmental field staff recruits and the Department's BushRanger cadets.

District staff conducted eight training sessions for Departmental fire crews, contractors, bulldozer operators and volunteer bushfire brigade members involving 77 participants.

The Department developed and presented a national level leadership program for high-level fire leaders titled "Advanced Incident Leadership Program". This one week residential course involved presenters from the USA, WA universities and senior Departmental staff, and drew participants

from FESA and from fire management agencies throughout Australia.

The Department worked closely with the Bureau of Meteorology and weather forecast consultants to develop a one-day course in fire weather prediction. The course was delivered to about 155 fire staff from CALM and other fire agencies at nine locations throughout the State.

The development and promotion of common fire training programs and course materials was actively pursued between the fire agencies within Western Australia.

Fire Detection

The Department provided an aerial surveillance system in the southwest

regions, which is based on a combination of lookout towers and single-engine aircraft (American Scout). There are 13 lookout towers throughout the southwest, which are manned by dedicated towerpersons from November to April each year. The towers were augmented by a fleet of eight aircraft flying six pre-determined circuits at schedules that varied according to the fire danger levels or fire activity. The aircraft were flown by three permanent Senior Pilots, and six seasonal pilots.

During the fire season of 2002–2003, the aircraft flew a total 3640 hours, of which 3072 hours were flown for aerial surveillance and wildfire intelligence, 248 hours in support of water bombing operations and 63 hours for search and rescue.

Fire Management Services Performance Indicators Southwest Regions 2002–2003

Key Effectiveness Indicators (1 and 2)

1. Prescribed Burning

Region	10-year rolling average (ha)	Actual 2002–2003 (ha)	Difference	
			(ha)	%
Swan	46,539	41,452	-5,087	-11
South West	59,548	37,550	-21,998	-37
Warren	55,363	65,833	10,470	19
Total	161,451	144,853	-16,896	-10

These statistics compare the 2002–2003 planned burning program with the ten-year rolling average for prescribed burning.

The Swan and South West Regions' burning achievements were below the ten-year rolling average. The lower total burn area achieved in 2002–2003 was primarily due to the drought conditions that continued to prevail throughout the burning seasons.

Other contributing factors to the lower areas include the continuing reductions in burn size; the increasing complexity of multiple ignition burns; the need to protect increasing areas of fire sensitive forest regeneration; and the limited number of suitable burning days when the risk of smoke accumulation in Perth and regional centres are acceptably low.

2. Fire Suppression

Region	Priority 1 and 2 (%) Standard 2002–2003	
	2002	2003
Swan	95	94
South West	95	92
Warren	95	95
Department Average	95	94

The percentage of all forest wildfires that are attacked with effective suppression forces before these fires exceed five hectares in Priority 1 and Priority 2 areas, under 95 percentile weather conditions. The percentage standard to be exceeded is 95 per cent of all forest fires requiring suppression by direct attack.

Definition:

The 95 percentile weather conditions are days when forest fire danger is below 'very high' and 'extreme' as calculated in the Department's Forest Fire Behaviour Tables (1998). Firefighters work safely and effectively under these conditions in standard forest fuels.

–Legislation and Compliance–

Statement of Compliance with written law 2002–2003

We have attempted to comply with the requirements of relevant written law, as originally enacted and as variously amended. Steps have been taken to rectify minor errors and omissions detected during 2002–2003. The relevant Acts and amendments to legislation are noted in this section of the annual report.



Keiran McNamara
EXECUTIVE DIRECTOR
29 August 2003

ACTS ADMINISTERED

- *Conservation and Land Management Act 1984.*
- *Sandalwood Act 1929.*
- *Wildlife Conservation Act 1950.*

On behalf of the people of Western Australia, the Department manages national parks, conservation parks, marine parks, State forests, timber reserves, nature reserves, marine nature reserves, other reserves, lease areas and any associated fauna, flora and forest produce under the legislation that it administers. It is also responsible for conserving flora and fauna throughout the State.

The *Conservation and Land Management Act 1984* established the Department. There are also three statutory bodies established under the Act, namely the Conservation Commission of Western Australia, the Marine Parks and Reserves Authority and the Marine Parks and Reserves Scientific Advisory Committee. All are responsible to the Minister for the Environment. Their functions and proceedings are described in separate annual reports to the Minister.

MINING AND GOVERNMENT AGREEMENTS ACTS

The CALM Act does not generally protect land managed by the Department from mining or development projects. Section 4 of the CALM Act provides that nothing in the Act shall take away from the operation of any Act relating to minerals or petroleum or any Agreement Act for a development project (except in marine nature reserves and certain zones in marine parks which are protected from petroleum drilling and production).

The CALM Act cannot impose restrictions on mining or development projects subject to an Agreement Act. The requirements for mining and development projects with respect to land and waters managed by the Department are stated in the *Mining Act 1978* and the individual Agreement Acts. The requirements of the *Environmental Protection Act 1986* also need to be satisfied with such projects on land managed by the Department.

The following mining and petroleum Acts generally prevail over the CALM Act – *Mining Act 1978; Petroleum Act 1967; Petroleum Pipelines Act 1969; Petroleum (Submerged Lands) Act 1982.*

Agreement Acts which involve clearing land managed by the Department, or which require access to forest resources, also include specific responsibilities for the Department. The bauxite and coal operations predominantly require permission to be given by the Department for the companies to harvest the timber before mining.

The Agreement Acts that affect departmental responsibilities include: *Alumina Refinery Agreement Act 1961; Alumina Refinery (Worsley)*

Agreement Act 1973; Collie Coal (Griffin) Agreement Act 1979; Collie Coal (Western Collieries) Agreement Act 1979; Dardanup Pine Log Sawmill Agreement Act 1992; Silicon (Kemerton) Agreement Act 1987; Wesply (Dardanup) Agreement Authorisation Act 1975; Wood Chipping Industry Agreement Act 1969; Wood Processing (Wesbeam) Agreement Act 2002; Wood Processing (WESFI) Agreement Act 2000.

Where an Agreement Act involves contracting in relation to forest products this is undertaken by the Forest Products Commission under the *Forest Products Act 2000.*

The *Mineral Sands (Eneabba) Agreement Act 1975* affects the Department's management of the land involved in that project.

OTHER RELEVANT ACTS

The *Bush Fires Act 1954* has important requirements for the Department with respect to fires on land managed by the Department.

Other State Acts which have relevance to the Department's operations and role as an employer include: *Aboriginal Heritage Act 1972; Aerial Spraying Control Act 1966; Agriculture and Related Resources Protection Act 1976; Agriculture Protection Board Act 1950; Animal Welfare Act 2002; Beekeepers Act 1963; Civil Liability Act 2002; Control of Vehicles (Off-road Areas) Act 1978; Country Areas Water Supply Act 1947; Dividing Fences Act 1961; Energy Operators (Powers) Act 1979; Electricity Corporation Act 1994; Electronic Transactions Act 2003; Environmental Protection Act 1986; Equal Opportunity Act 1984; Explosives and Dangerous Goods Act 1961; Financial Administration and Audit Act 1985; Fish Resources Management Act 1994; Forest*

Products Act 2000; Freedom of Information Act 1992; Government Employees Housing Authority Act 1964; Health Act 1911; Heritage of Western Australia Act 1990; Industrial Relations Act 1979; Labour Relations Reform Act 2002; Land Administration Act 1997; Local Government Act 1995; Long Service Leave Act 1958; Metropolitan Water Supply, Sewerage and Drainage Act 1909; Minimum Conditions of Employment Act 1993; Misuse of Drugs Act 1981; Occupational Safety and Health Act 1984; Occupiers Liability Act 1985; Pearling Act 1990; Public Sector Management Act 1994; Public Works Act 1902; Reserves (Dampier to Bunbury Natural Gas Pipeline Corridor) Act 2003; Soil and Land Conservation Act 1945; State Records Act 2000; State Superannuation Act 2000; State Supply Commission Act 1991; Swan River Trust Act 1988; Titles (Validation) and Native Title (Effect of Past Acts) Act 1995; Town Planning and Development Act 1928; Transfer of Land Act 1893; Volunteers (Protection from Liability) Act 2002; Water and Rivers Commission Act 1995; Water Corporation Act 1995; Water Services Coordination Act 1995; Waterways Conservation Act 1976; Workers' Compensation and Rehabilitation Act 1981; Workplace Agreements Act 1993.

Commonwealth Acts relevant to the Department's activities include: *Australian Heritage Commission Act 1975; Environment Protection and Biodiversity Conservation Act 1999; Native Title Act 1993; Regional Forest Agreements Act 2002; Trade Practices Act 1974; Workplace Relations Act 1996.*

International agreements relevant to the Department's activities: *Agreement between the Government of the People's Republic of China and the Government of Australia for the Protection of Migratory Birds and their environment; Agreement between the Government of Japan and the*

Government of Australia for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment; Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention); Convention on International Trade in Endangered Species of Wild Fauna and Flora; Convention for the Protection of the World Cultural and Natural Heritage; Convention on the Conservation of Migrating Species of Wild Animals; Convention on Biological Diversity.

REGULATIONS ADMINISTERED

- Conservation and Land Management Regulations 2002.
- Forest Management Regulations 1993.
- Sandalwood Regulations 1993.
- Wildlife Conservation Regulations 1970.
- Wildlife Conservation (Reptiles and Amphibians) Regulations 2002.

CHANGES IN LEGISLATION

Changes to regulations

The *Wildlife Conservation (Reptiles and Amphibians) Regulations 2002* came into effect on 21 September 2002. These new regulations enable reptiles and amphibians to be kept and traded as pets for the first time through authorisation of the keeping, sale, farming, taking, import and export of reptiles and amphibians under pet herpetofauna licences. These regulations also enable authorisation of the capture and removal of reptiles, such as venomous snakes, from in or near residential premises and other places frequented by people, under reptile removalists licences.

Amendments consequential and complementary to the *Wildlife Conservation (Reptiles and Amphibians) Regulations 2002* were also made to the *Wildlife Conservation Regulations 1970*.

In response to concerns raised by Parliament's Joint Standing Committee on Delegated Legislation an undertaking was given to remove regulation 81 from the *Conservation and Land Management Regulations 2002*, which denied compensation to an owner of unauthorized property disposed of under Part 6 of the regulations. Regulation 81 was repealed on 4 October 2002 and three minor textual amendments were also made at that time.

Changes to Conservation and Land Management Act

The *Conservation and Land Management Act 1984* was amended by the *Conservation and Land Management Amendment Act 2002*. These amendments repealed the respective roles of the Minister for Forest Products and the Minister for Water Resources in the approval of management plans. They also amended the respective roles of the Forest Products Commission, the Water and Rivers Commission and water utilities in the preparation of proposed management plans by the Conservation Commission of Western Australia through the agency of the Department. The role of these bodies has changed from one where they acted jointly to a role where the Conservation Commission through the agency of the Department acts in consultation with them in the preparation of proposed management plans relevant to the responsibilities of those bodies.

The *Labour Relations Reform Act 2002* and the *Fire and Emergency Services Legislation Amendment Act 2002* made consequential amendments to the *Conservation and Land Management Act 1984*.

Changes to Wildlife Conservation Act

The *Animal Welfare Act 2002* made consequential amendments to the *Wildlife Conservation Act 1950*.

—Performance Information—

I certify that the performance indicators are based on proper records, are relevant and appropriate for assisting users to assess the performance of the Department of Conservation and Land Management and fairly represent the performance of the Department of Conservation and Land Management for the financial year ended 30 June 2003.



Keiran McNamara
 ACTING EXECUTIVE DIRECTOR
 15 August 2003

OUTCOME (Outputs 1-3)	OUTCOME (Outputs 4 & 5)
<p><i>Conservation of biodiversity (Biodiversity: the variety of life forms: the different plants, animals and microorganisms, the genes they contain, and the ecosystems they form).</i></p> <ul style="list-style-type: none"> • Output 1: Nature Conservation; • Output 2: Sustainable Forest Management and; • Output 3: Resources and Services Provided to the Conservation Commission of Western Australia. 	<p><i>Community understanding enjoyment and appreciation of parks, wildlife and the natural environment and involvement in their management.</i></p> <ul style="list-style-type: none"> • Output 4: Parks and Visitor Services; and • Output 5: Astronomical Services

Output 1 Nature Conservation

Outcome achieved by

The conservation of indigenous plants, animals and ecological processes in natural habitats.

Output Description

The development and implementation of programs for flora and fauna conservation, for threatened species and ecological communities, and for commercially exploited species according to the principles of ecological sustainability; the acquisition, conservation and protection of representative ecosystems; and encouraging public awareness, understanding and support for nature conservation services and policies.

Note: The Department uses the National Strategy for the Conservation of Australia's Biological Diversity definition of 'conservation', ie "the protection, maintenance, management, sustainable use, restoration and enhancement of the natural environment".

The Output performance can be best measured by effectiveness and efficiency indicators in three key areas:

- 1. Wildlife and habitat management;**
- 2. Wildlife utilisation; and**
- 3. Threatened species management.**

Key Effectiveness Indicators

1. Wildlife and habitat management

Land is set aside for the management of wildlife and habitat. Management strategies are developed to ameliorate threatening agents, such as fire, pests, weeds and diseases, which can impact on the functioning of

native ecosystems, and threaten the survival of species.

Performance Indicator

Example population estimates of native fauna following control of a threatening process.

Notes

Research by Department scientists has demonstrated that fox predation was a major cause of small fauna decline in the southwest of Western Australia. This led to the baiting for foxes in selective areas of land managed by the Department, which resulted in the recovery of several species of threatened fauna at those sites. In 1994 the baiting program was extended as *Operation Foxglove*, where 500,000 ha of the northern jarrah forest was baited on a regular basis. In 1996, this program was further expanded as *Western Shield* with fox baiting now occurring over 3.5 million hectares of the State.

If baiting for foxes is successful in reducing fox predation as a threatening process, then it would be expected that fauna in the size range susceptible to fox predation would, in the absence of other factors, firstly stabilise, and then recover to an equilibrium level for the area of suitable habitat in a bushland locality. To monitor the implementation of *Western Shield*, monitoring sites have been established across the range of the baiting program.

Measure

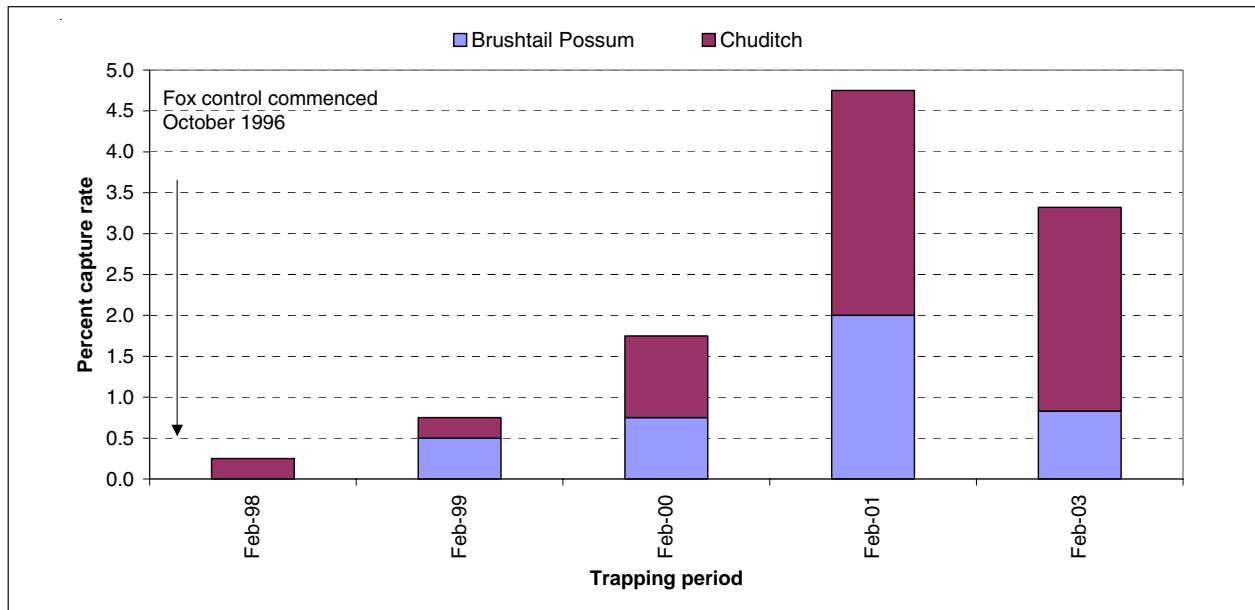
Population estimates for native fauna susceptible to fox predation in areas where fox baiting is occurring, as shown by monitoring sites where *Western Shield* is operating.

Note: the full Western Shield program commenced in 1996, and hence only seven years of monitoring data is available for areas where baiting was not previously undertaken. An example set of data from an area baited under Western Shield is presented in the graph opposite.

The chuditch *Dasyurus geoffroii* is listed as a threatened species, while the brushtail possum is considered to be common. These species of medium-sized mammal occurred in low numbers in the 6,543 ha Catterick Forest Block, located about 20 km south east of Kirup. The figure opposite shows the results of predator (fox) control on the chuditch and the brushtail possum in Catterick Forest Block. Note, no monitoring data are available for 2002.

While the chuditch population has declined over the past year, since 2000, it has been trapped above the criterion for successful population establishment (1% trap success), as set out in the Chuditch Recovery Plan. The small reduction in trapping success for the chuditch may be due to trapping variability, or a response to the period of low rainfall experienced in the southwest. The latter decline in the brushtail possum is also probably due to the low rainfall, although population stabilisation may also occur after a population increase following the removal of a threatening process.

This response to fox baiting is typical of the response over the range of fox baiting activity, although the drought over the past two years has caused some variation in the maintenance of fauna levels with continued fox baiting. Other examples have been presented in previous annual reports.



Percent capture rates of medium-size mammals in Catterick Forest Block

2. Wildlife utilisation

Species such as kangaroos, crocodiles and a number of flora species (excluding timber) are commercially utilised and must be managed to ensure the use is sustainable.

Performance Indicator

Example population levels of harvested wildlife.

Notes

The management of flora is based on the non-destruction of the harvested plants and is therefore sustainable. Limited harvesting of breeding crocodiles, eggs and hatchlings occurs from the wild. Kangaroo harvesting, however, involves the taking of larger numbers of animals from the wild, and must, therefore, be managed in a manner that does not threaten the wild populations.

The management programs for red and western grey kangaroo harvesting were first published in 1973. These programs outline the basis of sustainable harvesting using population estimates and harvest quotas.

From 1981 to 1993, triennial aerial surveys were undertaken for red and western grey kangaroos over the

pastoral region of Western Australia. Since 1995, the surveys have been done annually, each covering one third (one million km²) of the pastoral region. These data are used to estimate the populations of these species which are subject to commercial harvest.

Annual population estimates of red kangaroos are calculated from the survey data, with the estimates for the between-survey areas being extrapolated using population trend information, while western grey kangaroo populations are only recalculated when the southern pastoral region, where this species mainly occurs, is surveyed.

Sustainable harvest quotas have been determined from historical monitoring, and are set at a maximum of around 25% of the population estimate, with the actual quota based on:

- current population trends;
- seasonal conditions;
- review of previous harvests;
- the proportion of the habitat and population not subject to harvesting;
- current land use practice and trends in land use; and
- significance of the take outside the commercial quota.

Measure

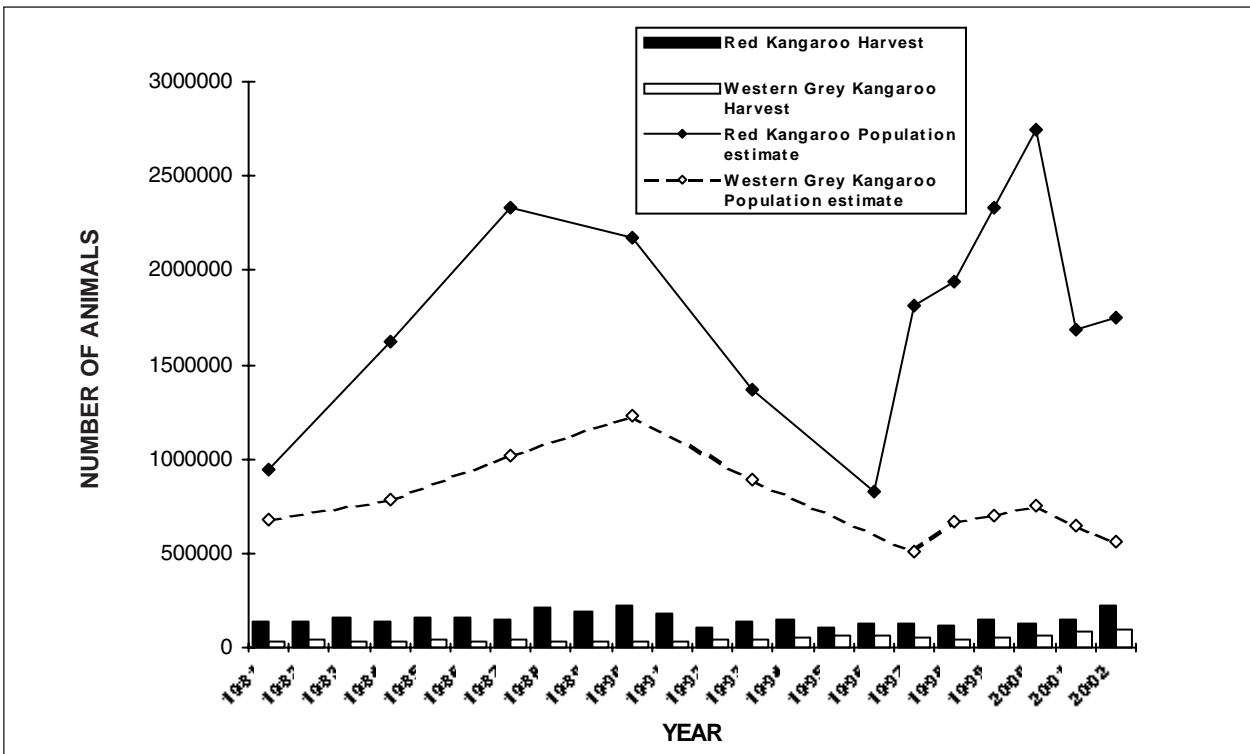
The graph over illustrates the management of harvest levels that allow for the maintenance of kangaroo populations in areas where commercial harvesting occurs.

Notes

Harvest levels are recorded for the previous calendar year as delays occur in receiving harvest reports. Minor corrections may also occur to previous years' data as late harvest returns are incorporated.

As from 1998 population estimates for kangaroos have been corrected for temperature. This gives a more realistic estimate of kangaroo numbers. Previous years' population data have also been recalculated using the temperature correction.

The variations observable in the populations of the kangaroo species mainly reflect rangeland condition, primarily as determined by rainfall, rather than the level of harvest permitted. As a natural feature of kangaroo population data, these fluctuations are taken into account over the longer term in setting sustainable harvest levels.



Population estimates and harvest levels for managed kangaroo populations in Western Australia

3. Threatened species management

A management system is in place to identify, protect and recover flora and fauna that is threatened with extinction or otherwise in need of special protection.

Performance Indicator

The identification and management of wildlife taxa that are threatened or requiring special conservation attention.

Note: Threatened taxa conservation in Western Australia involves two phases:

- i) the identification and listing in appropriate categories as determined by the level of threat and the level of available knowledge; and*
- ii) management to enable threatened taxa to be de-listed, or re-listed in less threatened categories, and to obtain the necessary information for poorly known taxa to categorise them properly.*

Indicators (a) and (b) below address these two phases.

a) The number of the State's wildlife taxa identified and listed as either threatened or requiring special conservation attention, compared to previous years.

Note

As from 1998–99 the measure relates to actual listing changes to the declared lists of specially protected fauna and flora made by the Minister for the Environment and the lists of priority fauna and flora prepared by the Department. Recommendations made by the Threatened Species Scientific Committee, but not yet declared by the Minister, are not included.

Measure

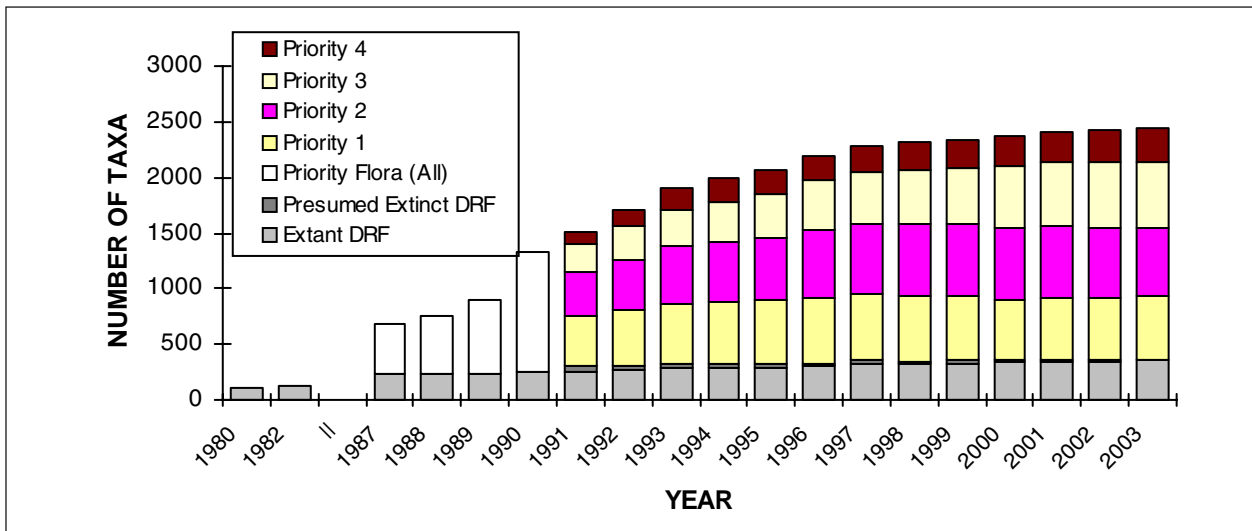
As shown in the graphs opposite, at 30 June 2003 a total of 2,863 taxa (2,452 flora and 411 fauna) were declared to be specially protected, or included on the Department's priority flora and fauna lists. This represents an increase of 2.2% in the number of taxa listed as requiring special conservation status compared to 2001–2002.

Forty-one flora and 40 fauna taxa were added, and 19 flora and no fauna taxa were deleted from the lists during the year. Additions were due to further scientific study revealing additional taxa that appear to warrant special conservation attention. Deletions were due either to taxonomic studies revealing taxa that were inappropriately listed, or surveys revealing that taxa were more common or better protected than previously thought, and hence no longer warranting special conservation attention.

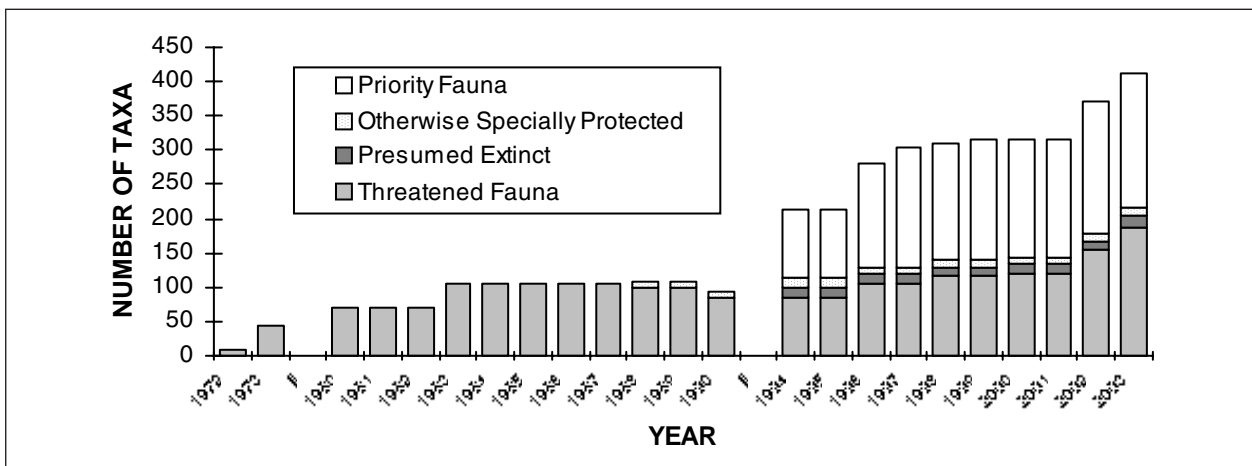
Notes

Migratory bird species listed under Schedule 3 of the fauna notice are not included in the numbers of taxa requiring special protection as most are not Western Australian species.

A taxon (plural taxa) is a term for any classificatory group of organisms, including species, subspecies and varieties. The indicator refers to the number of the State's wildlife taxa that are either:



Number of declared rare (DRF) and priority flora taxa



Number of threatened, otherwise specially protected and priority fauna taxa

- declared to be specially protected by the Minister for the Environment under the *Wildlife Conservation Act 1950*, that is, taxa that are considered to be either rare, likely to become extinct, or otherwise in need of special protection; or
- listed by the Department as priority flora or fauna, that is, taxa that are either poorly known but potentially in need of special protection based on the information available, (Priorities 1 to 3), or rare but not currently threatened and in need of monitoring (Priority 4).

The increase in the number of taxa listed mainly reflects the Department's enhanced knowledge base of the State's wildlife through taxonomic revision, curation of collections, databasing of

information, and field investigations, and does not in itself represent a change in the conservation status of the State's wildlife.

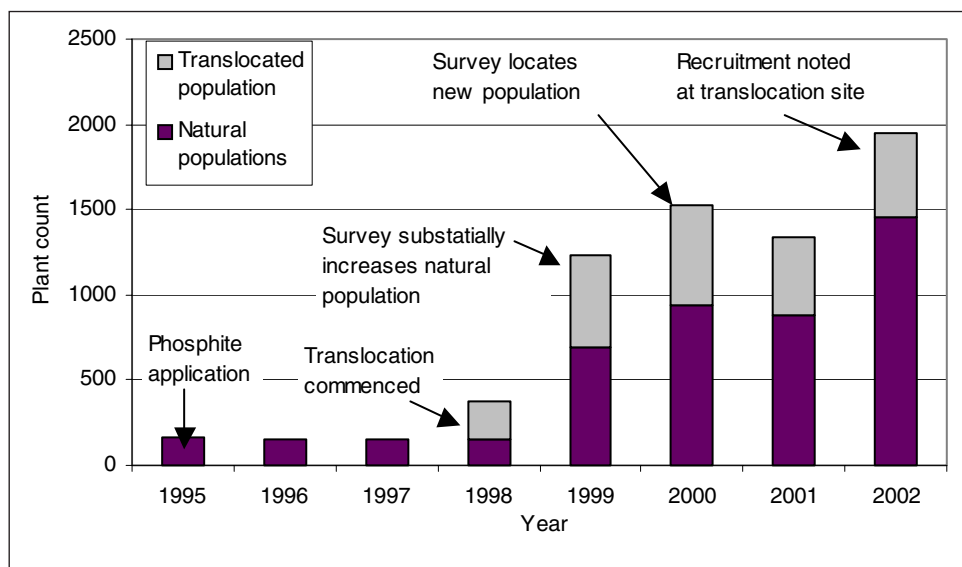
b. The recovery of threatened taxa as a consequence of specific management actions as demonstrated through case examples.

Note

Given the probabilistic nature of the categories of threat, and the long-term nature of threatened taxa recovery, significant management actions may occur before a taxon moves from one category to a lower risk category. The measure of such movements thus will occur over long time periods.

Measure

- Lambertia orbifolia* was first collected at Scott River in January 1945. It was subsequently also found about 200 km east of Scott River, near Narrikup. The species was named *orbifolia* (in reference to the rounded leaf shape) in 1964. Only five populations were located in the Scott River area and a further two near Narrikup leading to the species being listed as Declared Rare Flora and ranked as Endangered. Genetic studies recommended that the species should be separated into two subspecies based on the large genetic variation between the two locations (Coates and Hamley 1999 and Byrne et al 1999). The species was formally split in September 1999. Consequently, as the



Lambertia orbifolia subsp. orbifolia plant counts

Narrikup form (formally named as *Lambertia orbifolia* subspecies *orbifolia*) was known from two populations of 169 individuals it was ranked as Critically Endangered.

Prior to the species being formally split, concern was raised over the status of the Narrikup populations. The only two known populations occurred on narrow road verges, and despite the presence of rare flora markers had been damaged during road maintenance. In addition, both populations were infected with dieback disease *Phytophthora cinnamomi* and aerial canker. A program of phosphite application had commenced in 1995 to try to halt the high number of deaths.

Translocation was also recommended as part of the recovery process for this subspecies. A translocation site was selected in a nature reserve less than 4 km from the natural populations. A translocation proposal was written and approved in 1998. A total of 216 seedlings were planted at the translocation site in August 1998. In addition to simply trying to establish a new population, an experiment was also set up to test translocation techniques. Treatments tested were, application of a thin or a

thick layer of mulch and the use of tree guards. Very little differences in survival were detected. In 1999, a further 330 plants were planted at the translocation site.

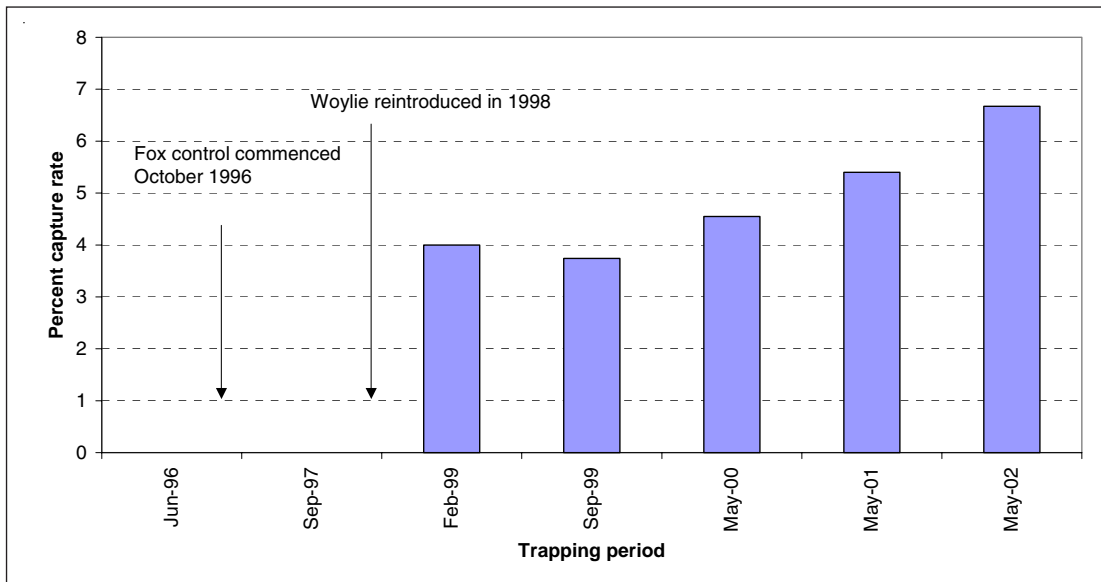
Experimental treatments tested were whether seedlings established better than cuttings and whether protection from herbivory was necessary. Initially there appeared to be little difference between any of the treatments, however differences in survival manifested after several years. In 2000, a further 69 seedlings were planted at the translocation site. No treatments were tested due to the small sample size. After three years of planting, a total of 615 plants had been planted and by 2002, 68% of these had survived and 98% of these had flowered and set viable seed. In 2002 the first naturally recruited seedlings (73 seedlings) were noted, indicating that the short-term translocation success criteria had been met.

Further surveys of the subspecies were undertaken in 1999 and 2000. These surveys were successful in locating one substantial new population on a townsite reserve (255 plants) and significantly increasing one of the known populations (from 27 to 1148). As this latter population was found to occur mainly on private property,

discussions were initiated with the landowner regarding management of the subspecies.

Intensive management since 1995, including phosphite application and translocation and survey, has resulted in the number of known plants of this subspecies increasing from 169 to 1948 individuals. In addition, there are now two populations located on reserves. The long term future of this subspecies appears to have significantly improved through the management actions implemented. *Note: in the monitoring of population numbers, some populations or subpopulations may not be monitored every year. In the figure below, where monitoring was not undertaken at a site for a particular year, population data for that site have been carried forward as an estimate of the population size at that time.*

- ii) Medium-sized mammals in the southwest of the State have generally declined in their population size and range due to loss of habitat and predation by foxes. Fox control under the *Western Shield* program may assist the recovery of these species in areas where animals still occur. In other areas where species have become locally extinct, translocation programs in conjunction with fox



Percent capture rate of Woylie in Centaur Forest Block

control to remove this threatening process, may be implemented to re-establish the species in secure conservation reserves.

The figure below shows the results of a translocation program with supporting fox control, of a medium-sized mammal, the woylie *Bettongia penicillata*, into the 3,174 ha Centaur Forest Block, located about 17 km south east of Collie. The population established through the translocation is nearing the level for successful establishment of a population of this species, with the trap success nearing the criterion for successful establishment (7.5% trap success)

as set out in the Woylie Recovery Plan.

Previously listed as Threatened, the woylie has been successfully recovered at a number of locations through fox control and translocations, resulting in its removal from the threatened fauna list in 1996. The woylie is now regarded as being Conservation Dependant – that is, dependant on the ongoing fox control provided through the *Western Shield* program.

Further examples of monitoring from other regions have been presented in previous annual reports.

Key Efficiency Indicator

1. Wildlife and habitat management

The cost per hectare managed.

Note

This measure provides an indicative comparison of the accrual basis gross total cost (excluding revenues) per hectare of managing nature conservation on Departmental-managed lands and waters.

Measure

1997–1998:	\$2.12 per hectare
1998–1999:	\$1.85 per hectare
1999–2000:	\$2.05 per hectare
2000–2001:	\$2.03 per hectare
2001–2002:	\$2.28 per hectare
2002–2003:	\$2.76 per hectare

Output 2 Sustainable Forest Management

Outcome achieved by

The development and implementation of management plans and systems for sustainable management of State forest and timber reserves.

Output description

The sustainable management of State forest and timber reserves while maintaining or enhancing nature conservation, water, recreation, landscape and other values in the long term, and encouraging public awareness, understanding and support for sustainable forest management, services and policies.

Key Effectiveness Indicator

Satisfaction of the sustainable forest management standards of the Conservation Commission of Western Australia.

Note

The Conservation Commission has adopted compliance with the Ministerial Conditions, Commitments and operational guidelines for the Forest Management Plan 1994–2003 as its standards for sustainable forest management pending finalisation of a new forest management plan. The Department has a statutory requirement to manage State forest and timber reserves and regulate access to State forest and timber reserves by the Forest Products Commission and its contractors, and to ensure that operational guidelines and standards are met. Compliance is measured through a field audit process

that samples active and completed forest coupes in both jarrah and karri, in a range of rainfall zones, that have or are being harvested by a range of contractors. The audits are conducted at least annually.

As reported in 2001–2002, the Conservation Commission resolved to follow up during the current reporting period on the field audit presented to it in November 2001. As a result, the Conservation Commission engaged an independent environmental auditor to review the process used by the Department, and the Conservation Commission's Audit Manager participated in field inspections with one of the Department's Auditors. The outcome of this follow up was that the Department's audit process and the results obtained were verified.

The Department conducted a field audit during the year which forms the basis for compliance testing for the key effectiveness indicator.

Measures

Output performance can best be measured in two key areas of compliance with the Forest Management Plan 1994–2003. These are:

- 1. Ministerial Conditions and Commitments; and**
- 2. Major aspects of the Manual of Management Guidelines for Timber Harvesting in Western Australia and the Contractors' Timber Harvesting Manual for South West Native Forests.**

- 1. Ministerial Conditions and Commitments**

Compliance with the Ministerial Condition to keep river and stream reserves (zones) and diverse ecotype conservation areas (zones) unharvested in perpetuity, and their boundaries protected during harvesting.

The breach of a boundary is considered an incident. Incidents are categorised as minor if a machine has crossed the boundary with minimal soil disturbance or major if the crossing involves soil and vegetation disturbance or tree removal. The approved removal of trees from within zones for reasons of safety is not considered an incident. Compliance is presented in the table below.

Compliance with requirements of the Ministerial Condition for phased logging.

In all second order catchments in the intermediate and low rainfall zones of the multiple use jarrah forest subject to logging, there is a requirement to retain at least 30% of each second order catchment at a basal area greater than 15 m²/ha for a period of at least 15 years after harvesting of the remainder of the catchment. The requirements of this Ministerial Condition were complied with for all areas sampled in 2001–2002 and 2002–2003.

Compliance with requirements of the Ministerial Condition for high salt risk catchments.

Within each catchment identified as a high salt risk, there is a requirement to retain an increased area of river and stream zones. No harvesting was found to have occurred in these areas

	Stream Zone		Diverse Ecotype Zone		Other (reserves, coupe boundaries, etc)	
	2001–02	2002–03	2001–02	2002–03	2001–02	2002–03
Length assessed (metres)	10,156	18,507	2,666	3,296	2,215	4,984
Number of minor incidents	28	28	6	3	1	6
Length of minor incidents (metres)	239	285	24	18	6	50
Number of major incidents	7	3	Nil	1	Nil	Nil
Length of major incidents (metres)	223	60	Nil	Nil	Nil	Nil
Percentage (%) of edge protected intact	95.5	98	99	99.5	99.7	99

in 2001–2002, however one coupe was harvested in 2002–2003. The increased area of stream zone was retained and protected in accordance with the requirements.

Compliance with Commitments for the retention of habitat elements.

Requirements are the identification and marking of four primary habitat trees per hectare or 20 per five hectares in all areas cut over. The specification also requires the identification and marking of at least one example of ground habitat per hectare. The average number of habitat trees per hectare for areas sampled was found to be 5.8 in 2001–2002 and 5.6 in 2002–2003. The average number of ground habitats per hectare in 2001–2002 was 0.2 and 0.65 in 2002–2003.

Compliance with the Commitment to limit karri gap size.

The requirement is that karri gap size be no larger than 80 hectares. All areas sampled complied. The maximum gap size recorded in 2001–02 was 39.3 hectares and in 2002–03 32.1 hectares. The average gap size was 11.2 ha in 2001–2002 and 11.8 ha in 2002–2003.

Compliance with the Commitment to limit the distance between retained mature karri forest.

The requirement is to, where possible, ensure the distance between areas of retained mature karri forest is a maximum of 400 metres. The areas sampled in 2001–02 and 2002–03 complied.

2. Major aspects of the Manual of Management Guidelines for Timber Harvesting in Western Australia and the Contractors' Timber Harvesting Manual for South West Native Forests.

Compliance with planning and pre-harvest checklists.

Standard documentation must be completed prior to the commencement of any harvesting operation on State forest. Approval of the documentation signifies formal approval for an area to be harvested. The requirements of this specification were complied with for

each coupe sampled in 2001–2002 but one coupe out of 16 sampled in 2002–2003 had sections of the pre-harvest checklist not signed off as completed prior to commencement of the operation.

Compliance with specifications for coupe demarcation.

Management boundaries, including coupe, river, stream, travel route and diverse ecotype zones, must be identified and demarcated prior to the commencement of cutting. Ninety-six per cent of boundaries assessed were marked correctly in 2001–2002 and 98% in 2002–2003.

Compliance with requirements for the protection of soil.

When extraction is completed in any fellers block, and prior to machinery leaving, interceptor banks and drains must be constructed across all extraction tracks and disturbed firebreaks with exposed soil to minimise the risk of erosion. Ninety-three per cent of assessed track complied with the requirement in 2001–2002 and 92% in 2002–2003.

Compliance with requirements for the protection of water.

Effective water protection measures should be undertaken during all phases of harvesting. The level of compliance is incorporated in the table showing compliance with the Ministerial Conditions and the Commitment for river and stream zones. Compliance is also monitored through measures in place such as phased logging in the intermediate/low rainfall zone in the jarrah forest and also the identification of high salt risk catchments where an additional area of stream zone is retained. Additional measures to protect water quality are in place, such as the requirement to construct erosion barriers in harvested areas to protect streams from turbidity.

Compliance with requirements for the protection of threatened flora.

Field searches are conducted along proposed road alignments, landing and gravel pit sites before harvesting operations commence. Located

populations are demarcated and protected from disturbing activity. Field searches for the presence of threatened flora populations had been conducted in all coupes sampled in 2001–02 but in one coupe of the 16 sampled in 2002–03 there was no record of a search having been undertaken.

Compliance with requirements for the protection of threatened fauna.

Areas planned for harvesting are assessed in a desktop procedure against a matrix that determines the probability of habitats of threatened fauna occurring. Databases containing records of known habitats, populations and sightings are also consulted. The desktop procedure is yet to be formally approved. The audit found limited evidence of the procedure being followed in 2001–2002 due to a lack of records of use and results for the procedure. All coupes sampled in 2002–03 had evidence of the procedure being implemented.

Key Efficiency Indicator

The average cost per hectare of managing State forest and timber reserves.

Note

The figure used is the accrual basis average gross cost per hectare of managing State forest and timber reserves in accordance with current forest management plans. The area managed totalled 1,262,000 hectares. This figure varies from the gazetted area quoted in the 2001–2002 annual report, since areas of State forest and timber reserves proposed for addition to the formal conservation reserve system are currently being managed as if the changes in land category had already occurred.

Measure

The cost per hectare managed was \$25.83, an increase on the 'Target' cost in the 2002–2003 Budget Statements, which was \$19.75. This also represents an increase when compared with the 2001–2002 annual report figure of \$17.82 per hectare.

Output 3 Resources and Services

Provided to the Conservation Commission of Western Australia

Outcome achieved by:

The provision of resources and services to the Conservation Commission of Western Australia

Output description

The provision of resources and services to the Conservation Commission of Western Australia for the satisfaction of its functions which include; having vested in it the State's national parks, conservation parks, nature reserves, State forest and timber reserves; policy development for the preservation and community

enjoyment of the State's natural environment, and promoting the appreciation of flora, fauna and the natural environment; advice to the Minister for the Environment on the development of policies for the conservation and management of biodiversity throughout the State and on the ecologically sustainable management of State forest, timber reserves and forest produce; and audit of the Department of Conservation and Land Management's and the Forest Products Commission's performance against management plans.

Key Efficiency Indicator

The average cost per management plan/significant policy developed.

Note

The accrual basis average cost of developing management plans and/or significant policies for the Conservation Commission's consideration.

Measure

The average cost per management plan/significant policy developed for the Commission's consideration was \$35,870. This represents an increase of \$17,337 on the 'Target' cost of \$18,533 in the 2002–2003 Budget Statement. This is due to the continued development of the new forest management plan.

Historical comparison

Year	Average Cost per Management Plan/ Significant Policy \$	Target Cost per Management Plan/ Significant Policy \$	Increase over Target Cost per Management Plan/ Significant Policy \$
2001–2002	27,360	11,100	16,260
2002–2003	35,870	18,533	17,337

Output 4 Parks and Visitor Services

Outcome achieved by

Community enjoyment and appreciation of parks, wildlife and the natural environment without compromising conservation and management objectives.

Output description

Dealing with public involvement, visitation and appreciation of the natural environment on lands and waters managed by the Department, including preparing and implementing management and recreation site development plans; providing, managing and maintaining appropriate access, recreation opportunities and visitor facilities; protecting natural areas, visitors and facilities from wildfire; training Departmental staff and volunteers, working with local tourist bureaux and commercial tour operators; involving Aboriginal people in park management and the provision of visitor facilities and services; providing visitor information and designing and initiating educational and interpretive activity programs which enrich visitor experience and help develop greater community awareness and support for parks, natural areas, nature-based tourism and recreation services and policies.

Key Effectiveness Indicators

1. The extent to which visitors are satisfied with their visit overall to recreation areas managed by the Department.

Notes

The Department's visitor survey program continued for its third full year during 2002–2003. This survey program enhances the rigour of measuring the overall level of visitor satisfaction to recreation areas managed by the Department as well as providing for a benchmark Visitor

Satisfaction Index (VSI) and the collection of other information useful for planning and management purposes. The survey is being conducted across a broad range of parks, reserves and forest areas at different times of the year to account for the geographic spread of these areas and associated seasonal variation in visitor patterns across the State.

Respondents to the 2002–2003 survey program show the following characteristics:

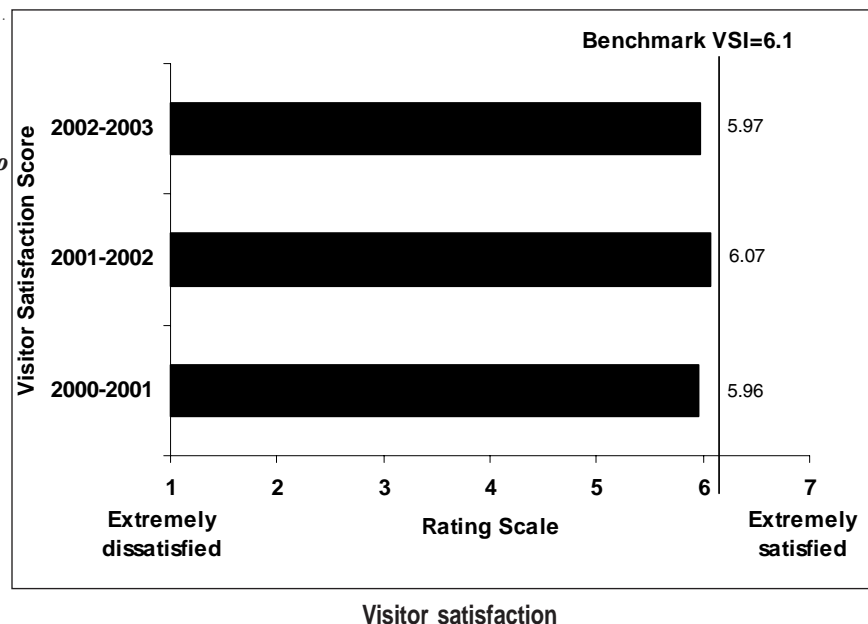
- 48% of respondents were from Western Australia, 36% from interstate and the remaining 16% from overseas.
- the majority of respondents surveyed were visiting with friends and/or family as opposed to travelling on a tour, with an organised group or on their own.
- the largest proportion of respondents were in the 40–59 year age bracket, being 39% of visitors, followed by the 25–39 year age bracket, which comprised 30% of respondents.
- 69% of respondents overall were first time visitors to the recreation areas surveyed.

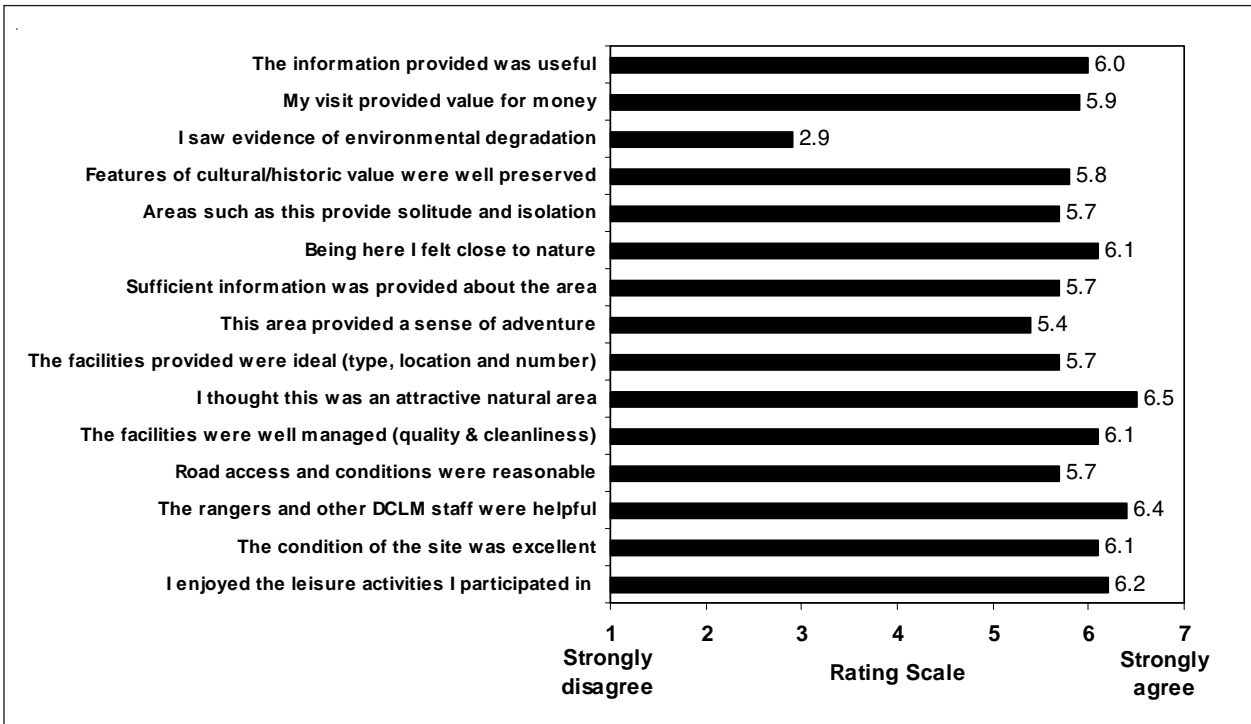
Note: A total of 2,500 surveys were distributed during specific survey periods throughout the year to visitors to 16 parks/recreation sites across the State with 979 completed surveys returned. At a 95% confidence level, the survey responses reported below have a standard error within the range of ±0.02.

Measures

As part of the survey program, a benchmark Visitor Satisfaction Index (VSI) from which to compare visitor satisfaction levels each year has been adopted. This benchmark has been set at 6.1 on a rating scale from 1 (extremely dissatisfied) to 7 (extremely satisfied). The 2002–2003 VSI averaged from visitor responses to the survey at the selected parks, reserves and forest areas around the State was 5.97, which is slightly below the benchmark VSI of 6.1. This is illustrated in the **Visitor Satisfaction** graph, together with the results from the previous two years of the survey program.

The survey also asked visitors to rate the condition and management of the site they visited, the activities in which they participated and their overall experience at the site. All these factors





Visitor experience ratings

contribute to the visitors' overall experience during their visit. The **Visitor Experience Ratings** graph indicates that the naturalness of the area, helpfulness of Departmental staff including Rangers, the enjoyment derived from leisure activities and the condition and management of facilities received the highest ratings from visitors' responses to this part of the survey. These were also the highest ratings given from responses to the surveys conducted last year.

Measures

As illustrated in the diagram **Volunteer Involvement**, the number of volunteer hours spent on various nature conservation and visitor services projects this year totalled 264,000 hours, an increase of 21% on last year's figure of 217,000 hours. In addition, a further 200,000 hours were contributed to various projects by the 960 Bush Ranger cadets who participated in the Department of

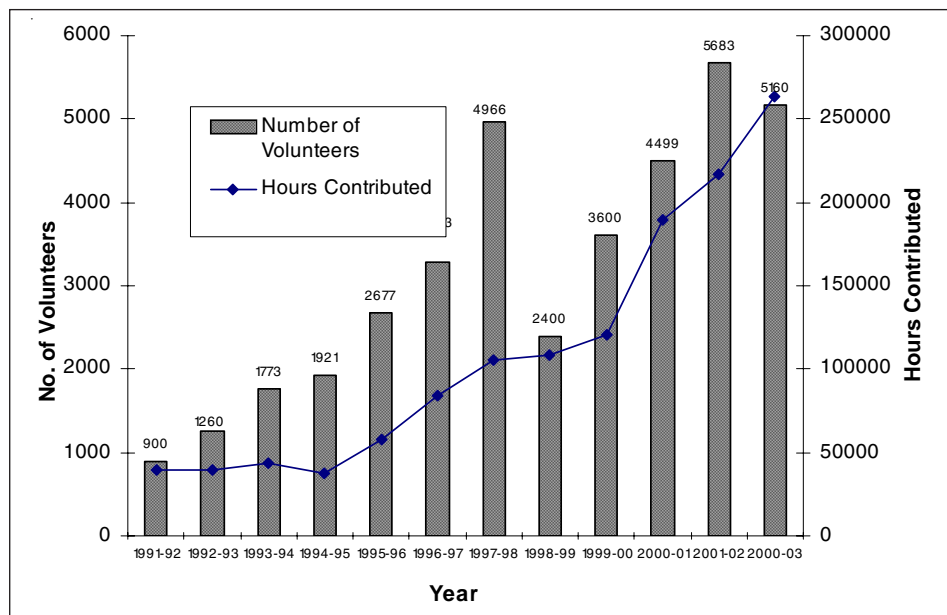
Conservation and Land Management's Bush Ranger cadet program.

The number of registered volunteers stands at 5,160. The number of registered volunteers who contributed to various projects during the year was 3,231, an increase of 40% on last year's figure of 2,300. This reflects the community's strong interest in and willingness to actively support environmental management and protection projects.

2. *The extent to which the public has shown interest/support for Departmental-managed recreation areas, facilities and services.*

Note

The level of volunteer involvement indicates continued public support for the Department's management programs and the Department's ability to balance competing land uses to aid public enjoyment and protect conservation values.



Volunteer involvement

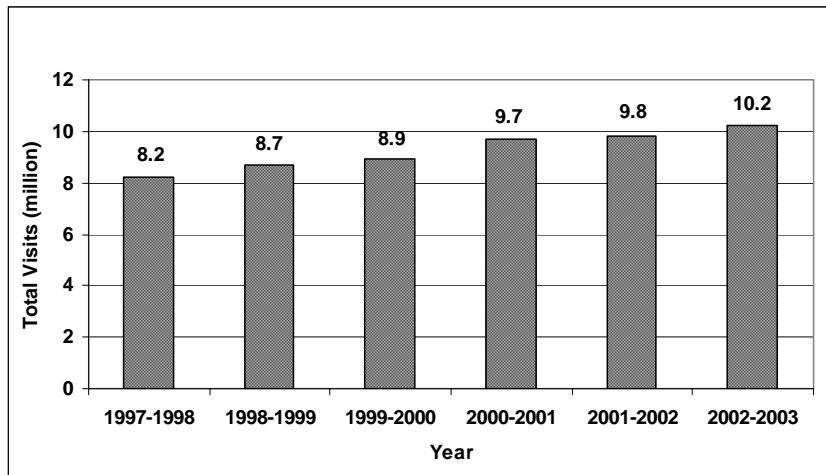
3. The number of visits to recreation areas managed by the Department.

Note

The number of visits to recreation areas is based on data from the Department's Visitor Information and Statistics (VISTAT) Program.

Measures

Data from VISTAT indicate that the number of visits to lands and waters managed by the Department for 2002–2003 totalled 10,155,000. As illustrated in the diagram on **Visitor Use Levels**, this figure comprises both recorded numbers of visits from traffic counter devices, surveys and other data sources as well as estimated numbers of visits based on field observation. This figure represents an increase of 3% on the 9,821,000 visits in 2001–2002.



Visitor use levels

National Parks	2000–2001	2001–2002	2002–2003
Cape Le Grand	65,000	65,000	105,000
Nambung	169,000	173,000	206,000
Purnululu	18,000	21,000	21,000

Trends in visitor numbers to three national parks

This increase in visits reflects a continuing interest by the public in visiting natural areas managed by the Department, despite seasonal weather conditions limiting visitation to some recreation areas and the effects of the SARS virus on world travel.

To compare long term trends in visitor use levels and patterns, Cape Le Grand, Nambung and Purnululu national parks have been selected because they represent low, medium and high levels of visitation.

As indicated in the Table **Trends in Visitor Numbers to Three National Parks**, two of the three parks have experienced an increase in visitor numbers over the previous 12 months. Over the past five years, the trend has been one of continuous growth in visitation to Department managed parks, reserves and forest areas throughout the State.

Key Efficiency Indicator

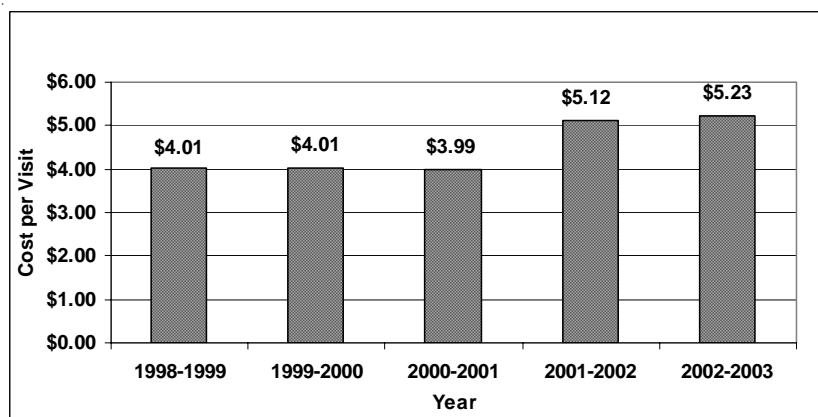
1. Cost Per Visit.

Note

The accrual basis total cost (excluding revenues) of Parks and Visitor Services, expressed as a cost per recorded visit to Department-managed lands and waters.

Measure

The 2002–2003 gross cost per visit was \$5.23. As shown in the **Cost per Visit** graph, this represents a modest increase of \$0.11 over the figure reported for 2001–2002.



Cost per visit

Output 5 Astronomical Services

Outcome achieved by:

Measure

Astronomical information and services for the benefit of the community.

The table **Overall Satisfaction with Perth Observatory** shows the

3. Research findings published in internationally recognised journals.

Output description

combined analysis of 238 (46%) responses to the visitors' survey question 'How satisfied were you with the services provided by Perth Observatory?' and the 30 (59%) responses to the services customers' levels of satisfaction consistent across all types of visits.

Note

One of the aims of Perth Observatory is to further scientific research in astronomy. One method of measuring the contribution to scientific research is to determine the number of articles published in internationally recognised scientific journals. The publishers of these journals independently evaluate articles submitted to ensure they meet appropriate standards and criteria. Publication in these journals evidences that the Observatory is adding to scientific knowledge and therefore furthering scientific research.

Providing public information and awareness directly beneficial to the Western Australian community, and contributing to scientific research in astronomy by co-operating with national and international institutions in the acquisition, analysis, interpretation and dissemination of information.

2. The extent to which visitors perceive the information presented during their tour of the Observatory increased their knowledge and awareness of astronomy.

Key Effectiveness Indicators

1. The level of customer satisfaction with the services provided by the Observatory.

Note

This indicator relates to the educational role of the Observatory in meeting the demand by the community for information on astronomy and measures the extent to which that demand is met.

Measure

During 2002–2003, the Observatory had three (five in 2001–2002) articles published in internationally recognised journals. This decrease reflects the inherent fluctuation in the number of papers associated with the ongoing, protracted and complex nature of the research output, the external collaboration required, and the relatively small number of papers involved each year. *Note: 15 (18 in 2001–2002) other scientific papers related to scientific data on astronomical objects were also published as articles in educational journals, popular magazines, newsletters or internal reports.*

Note

During 2002–2003, 9,772 people visited the Observatory, 1,462 people used the recorded information line, and 9,872 people telephoned and 562 emailed seeking information.

Measure

The **Increased Knowledge and Awareness of Astronomy** table illustrates visitors' perception as measured by the visitors' survey described above. The analysis of the 251 (48%) responses to the question 'To what extent do you agree that the information presented on the tour increased your knowledge of and awareness of astronomy?' indicates levels of satisfaction consistent across all types of visits.

A total of 569 customer survey questionnaires were distributed; 518 to Observatory star viewing night, day and Sunday visitors between July 2002 and May 2003, and 51 to customers of Observatory services such as lectures and natural lighting consultancies.

Note: At a 95% confidence level the survey responses reported below have a standard error within the range ±6%.

Overall satisfaction with Perth Observatory

Response	1996–97 %	1997–98 %	1998–99 %	1999–00 %	2000–01 %	2001–02 %	2002–03 %
Very satisfied	69.6	68.7	71.3	75.1	72.8	64.5	67.9
Satisfied	26.8	29.9	26.4	23.9	25.3	31.3	26.5
Neither satisfied or dissatisfied	3.0	1.2	2.3	0.8	1.9	3.4	3.0
Dissatisfied	0.4	0.2	0.0	0.0	0.0	0.7	1.1
Very dissatisfied	0.2	0.0	0.0	0.2	0.0	0.0	1.5

Increased knowledge and awareness of astronomy

Response	1996–97 %	1997–98 %	1998–99 %	1999–00 %	2000–01 %	2001–02 %	2002–03 %
Strongly agree	48.7	45.4	52.6	54.9	57.6	42.0	45.0
Agree	46.1	50.9	45.5	43.9	38.9	53.4	49.8
Neither agree or disagree	4.2	3.5	1.9	1.2	3.5	4.6	4.4
Disagree	1.0	0.2	0.0	0.0	0.0	0.0	0.8
Strongly disagree	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key Efficiency Indicators

1. Cost per tour visitor.

Note

The Perth Observatory conducts an on-site educational program through guided tours for school and community groups, tourists and the general public. This indicator shows the average accrual gross cost per tour visitor based on 2002–2003 tour participation totalling 9,772 (2001–2002 9,714), ie. night visitors: 5,653, day visitors: 3,827 and Sunday afternoon visitors: 292.

This is 972 greater than the ‘Target’ attendance of 8,800 in the 2002–2003 Budget Statements because of increased attendance at daytime guided tours.

Measure

The cost per visitor in 2002–2003 was \$23.48 (2001–2002 \$20.42) an increase of \$5.33 on the ‘Target’ cost of \$18.15 in the 2002–2003 Budget Statements

This increase is mainly due to an increase in the number of daytime guided tours that don’t quite recover full cost.

2. Cost per enquiry.

Note

This indicator shows the average accrual gross cost relating to the Observatory receiving and responding to enquiries about astronomical information by way of the information line, telephone calls and attendance at astronomy talks and field nights.

Measure

Based on a total of 16,468 enquiries in 2002–2003, the cost per enquiry was \$38.30 (18,405 enquiries at \$31.50 in 2001–2002). This is an increase of \$5.80 on the ‘Target’ cost of \$32.50 in the 2002–2003 Budget Statements.

This increase is mainly due to the combined effects of a decrease in the number of enquiries, an increase in staff salaries and the fixed costs associated with this activity.

3. Cost of research activities per refereed research paper.

Note

This indicator shows the average accrual gross cost of the Observatory’s research activities expressed as an average per refereed scientific research paper.

Measure

In 2002–2003 the average cost per paper of the research activities supporting the three refereed research papers was \$143,931 (five papers at \$81,836 in 2001–2002), an increase of \$58,931 on the ‘Target’ cost of \$85,000 in the 2002–2003 Budget Statements. This increase reflects the ongoing, protracted and complex nature of the research output, the external collaboration required, and the relatively small number of papers involved each year.

4. Cost of research activities per 1,000 head of WA population.

Note

This indicator shows the accrual gross cost of the Observatory’s research activities expressed as an average cost per 1,000 head of WA population.

Measure

The cost of research activities per 1,000 head of WA population was \$223 in 2002–2003, (\$213 in 2001–2002) an increase of \$34 on the ‘Target’ cost of \$189 in the 2002–2003 Budget Statements.

This increase reflects the ongoing, protracted and complex nature of the research output, the external collaboration required, and the relatively small number of papers involved each year.



AUDITOR GENERAL

INDEPENDENT AUDIT OPINION

To the Parliament of Western Australia

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT PERFORMANCE INDICATORS FOR THE YEAR ENDED JUNE 30, 2003

Audit Opinion

In my opinion, the key effectiveness and efficiency performance indicators of the Department of Conservation and Land Management are relevant and appropriate to help users assess the Department's performance and fairly represent the indicated performance for the year ended June 30, 2003.

Scope

The Executive Director's Role

The Executive Director is responsible for developing and maintaining proper records and systems for preparing performance indicators.

The performance indicators consist of key indicators of efficiency and effectiveness.

Summary of my Role

As required by the Financial Administration and Audit Act 1985, I have independently audited the performance indicators to express an opinion on them. This was done by looking at a sample of the evidence.

An audit does not guarantee that every amount and disclosure in the performance indicators is error free, nor does it examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the performance indicators.

A handwritten signature in black ink, appearing to read 'D D R Pearson'.

D D R PEARSON
AUDITOR GENERAL
September 15, 2003

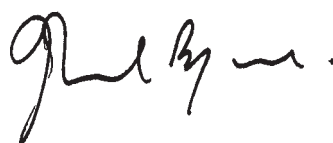
— Financial Statements —

The accompanying financial statements of the Department of Conservation and Land Management have been prepared in compliance with the provisions of the *Financial Administration and Audit Act 1985* from proper accounts and records to present fairly the financial transactions for the period ending 30 June 2003 and the financial position as at 30 June 2003.

At the date of signing we are not aware of any circumstances which would render the particulars included in the financial statements misleading or inaccurate.



Keiran McNamara
ACCOUNTABLE OFFICER
15 August 2003



John Byrne
PRINCIPAL ACCOUNTING OFFICER
15 August 2003

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
STATEMENT OF FINANCIAL PERFORMANCE
FOR THE YEAR ENDED 30 JUNE 2003

	Note	2002–2003 (\$'000)	2001–2002 (\$'000)
COST OF SERVICES			
Expenses from Ordinary Activities			
Employee expenses	4	76,050	64,039
Supplies and services	5	42,216	38,082
Depreciation and amortisation expense	6	11,247	10,585
Borrowing costs expense		0	509
Administration expenses	7	4,362	5,024
Accommodation expenses	8	2,273	1,719
Grants & subsidies	9	495	754
Capital user charge	10	9,865	11,237
Other expenses from ordinary activities	11	9,852	9,948
Total cost of services		156,360	141,897
Revenue from Ordinary Activities			
User charges and fees	12	27,770	37,549
Commonwealth grants and contributions	13	4,275	9,607
Other grants and contributions	14	5,816	6,179
Interest revenue		1,358	1,343
Proceeds from disposal of non-current assets	15	1,133	1,347
Other revenues from ordinary activities	16	5,495	5,126
Total revenues from ordinary activities		45,847	61,151
NET COST OF SERVICES		(110,513)	(80,746)
REVENUES FROM STATE GOVERNMENT			
Output appropriations	17	117,593	96,812
Net Assets assumed (Transferred)		171	(2,717)
Resources received free of charge		798	833
Liabilities assumed by the Treasurer		466	(1,059)
Total revenues from State Government		119,028	93,869
Change in net assets		8,515	13,123
Net increase/(decrease) in asset revaluation reserve		(8,238)	124,942
Total revenues, expenses and valuation adjustments recognised directly in equity		(8,238)	124,942
Total changes in equity other than those resulting from transactions with WA State Government as owners		277	138,065
The Statement of Financial Performance should be read in conjunction with the accompanying notes.			

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2003

	Note	2002–2003 (\$'000)	2001–2002 (\$'000)
CURRENT ASSETS			
Cash assets	30 (a)	27,086	30,393
Restricted cash assets	18	45	69
Inventories	19	3,079	2,681
Receivables	20	8,234	7,161
Amounts receivable for outputs	21	3,214	314
Other assets	22	687	609
Total Current Assets		42,345	41,227
NON-CURRENT ASSETS			
Restricted cash assets	18	2,275	2,000
Amounts receivable for outputs	21	14,174	10,500
Property, plant, equipment and vehicles	23	2,050,865	2,055,429
Intangible assets	24	221	0
Other assets	25	60,395	58,238
Total Non-Current Assets		2,127,930	2,126,167
TOTAL ASSETS		2,170,275	2,167,394
CURRENT LIABILITIES			
Payables	26	4,476	6,257
Provisions	27	11,832	9,210
Other liabilities	28	2,901	3,959
Total Current Liabilities		19,209	19,426
NON-CURRENT LIABILITIES			
Provisions	27	5,495	5,342
Total Non-Current Liabilities		5,495	5,342
TOTAL LIABILITIES		24,704	24,768
EQUITY			
Equity Contribution to Government	29	(235,220)	(235,052)
Equity Contribution from Government		10,213	7,377
Reserves		1,971,088	1,979,326
Accumulated surplus/(deficit)		399,490	390,975
Total Equity		2,145,571	2,142,626
TOTAL LIABILITIES AND EQUITY		2,170,275	2,167,394

The Statement of Financial Position should be read in conjunction with the accompanying notes.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 30 JUNE 2003

Note	2002–2003 (\$'000)	2001–2002 (\$'000)
CASH FLOWS FROM GOVERNMENT		
Output appropriations	105,871	85,998
Capital appropriations	2,836	7,365
Holding account drawdowns	5,148	0
Net cash provided by Government	113,855	93,363
UTILISED AS FOLLOWS:		
CASH FLOWS FROM OPERATING ACTIVITIES		
Payments		
Employee costs	(66,774)	(58,978)
Superannuation	(5,804)	(5,103)
Supplies and services	(44,253)	(36,022)
Borrowing costs	0	(598)
GST payments on purchases	(6,932)	(6,059)
GST Payments to taxation authority	(55)	(208)
Capital user charge	(10,606)	(10,525)
Administration	(4,493)	(3,990)
Accommodation	(2,244)	(3,445)
Other payments	(9,777)	(9,890)
Receipts		
Sale of goods and services	18,946	32,320
User charges and fees	14,283	13,163
Commonwealth grants and contributions	4,344	9,357
Interest received	1,358	1,343
GST receipts on sales	2,986	4,001
GST receipts from taxation authority	3,764	1,683
Other receipts	5,650	6,125
Net cash provided by/(used in) operating activities	30 (b) (99,607)	(66,826)
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sale of non-current physical assets	1,129	1,394
Purchase of non-current physical assets	(18,433)	(15,824)
Net cash provided by/(used in) investing activities	(17,304)	(14,430)
CASH FLOWS FROM FINANCING ACTIVITIES		
Repayment of borrowings	0	(3,810)
Net cash provided by/(used in) financing activities	0	(3,810)
Net increase/(decrease) in cash held	(3,056)	8,297
Cash at the beginning of the financial year	32,462	24,165
CASH AT THE END OF THE FINANCIAL YEAR	30 (a) 29,406	32,462
The Statement of Cash Flows should be read in conjunction with the accompanying notes.		

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
OUTPUT SCHEDULE OF EXPENSES AND REVENUES
FOR THE YEAR ENDED 30 JUNE 2003**

	OUTPUT 1 NATURE CONSERVATION (\$'000)		OUTPUT 2 SUSTAINABLE FOREST MANAGEMENT (\$'000)		OUTPUT 3 RESOURCES SUPPLIED TO THE CONSERVATION COMMISSION (\$'000)		OUTPUT 4 PARKS AND VISITOR SERVICES (\$'000)		OUTPUT 5 ASTRONOMICAL SERVICES (\$'000)		TOTAL (\$'000)	
	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03	2001-02
Cost of Services												
Expenses from Ordinary Activities												
4 Employee expenses	35,132	28,129	17,437	16,207	338	350	22,480	18,772	663	581	76,050	64,039
5 Supplies and services	19,938	15,320	8,753	7,988	392	232	12,895	14,374	238	168	42,216	38,082
6 Depreciation and amortisation expense	3,122	2,174	1,562	2,473	10	9	6,378	5,749	175	180	11,247	10,585
Borrowing costs expense	0	133	0	0	0	0	0	376	0	0	0	509
7 Administration expenses	1,908	1,902	976	1,653	21	34	1,432	1,404	25	31	4,362	5,024
8 Accommodation expenses	908	211	289	726	20	27	1,039	737	17	18	2,273	1,719
9 Grants & subsidies	298	754	50	0	0	0	147	0	0	0	495	754
10 Capital user charge	2,160	2,309	1,760	2,627	8	2	5,781	6,108	156	191	9,865	11,237
11 Other expenses from ordinary activities	5,085	4,556	1,781	2,067	36	31	2,932	3,276	18	18	9,852	9,948
Total cost of services	68,551	55,488	32,608	33,741	825	685	53,084	50,796	1,292	1,187	156,360	141,897
Revenue from Ordinary Activities												
12 User charges and fees	3,574	2,973	13,319	23,423	0	0	10,715	11,005	162	148	27,770	37,549
13 Commonwealth grants and contributions	3,832	9,150	159	302	0	0	284	155	0	0	4,275	9,607
14 Other grants and contributions	1,006	909	284	414	0	5	4,526	4,851	0	0	5,816	6,179
Interest revenue	1,082	887	137	286	0	0	139	170	0	0	1,358	1,343
15 Proceeds from disposal of non-current assets	645	453	296	440	0	1	192	453	0	0	1,133	1,347
16 Other revenues from ordinary activities	1,940	1,728	1,665	1,686	0	0	1,890	1,712	0	0	5,495	5,126
Total revenues from ordinary activities	12,079	16,100	15,860	26,551	0	6	17,746	18,346	162	148	45,847	61,151
NET COST OF SERVICES	(56,472)	(39,388)	(16,748)	(7,190)	(825)	(679)	(35,338)	(32,450)	(1,130)	(1,039)	(110,513)	(80,746)
REVENUES FROM GOVERNMENT												
17 Output appropriations	55,493	44,199	19,993	14,657	556	555	40,466	36,283	1,085	1,118	117,593	96,812
Net Assets assumed (transferred)	4	0	154	(2,717)	0	0	13	0	0	0	171	(2,717)
Resources received free of charge	345	360	205	214	5	5	236	247	7	7	798	833
Liabilities assumed by the Treasurer	213	(458)	98	(271)	2	(5)	149	(316)	4	(9)	466	(1,059)
Total revenues from Government	56,055	44,101	20,450	11,883	563	555	40,864	36,214	1,096	1,116	119,028	93,869
Change in net assets	(417)	4,713	3,702	4,693	(262)	(124)	5,526	3,764	(34)	77	8,515	13,123

The Output schedule of expenses and revenues should be read in conjunction with the accompanying notes.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
SUMMARY OF CONSOLIDATED FUND APPROPRIATIONS AND REVENUE ESTIMATES (NOTE 39)
FOR THE YEAR ENDED 30 JUNE 2003

	<u>2002-03</u> <u>Estimate</u> <u>\$'000</u>	<u>2002-03</u> <u>Actual</u> <u>\$'000</u>	<u>Variance</u> <u>\$'000</u>	<u>2002-03</u> <u>Actual</u> <u>\$'000</u>	<u>2001-02</u> <u>Actual</u> <u>\$'000</u>	<u>Variance</u> <u>\$'000</u>
PURCHASE OF OUTPUTS						
Item 68 Net amount appropriated to purchase outputs	111,725	117,438	5,713	117,438	96,664	20,774
Amount Authorised by Other Statutes						
- Salaries and Allowances Act 1975	173	155	(18)	155	148	7
Total appropriations provided to purchase outputs	111,898	117,593	5,695	117,593	96,812	20,781
CAPITAL						
Item 150 Capital Contribution	3,836	2,836	(1,000)	2,836	7,365	(4,529)
GRAND TOTAL OF APPROPRIATIONS	115,734	120,429	4,695	120,429	104,177	16,252
DETAILS OF EXPENSES BY OUTPUTS						
Nature Conservation	63,253	68,551	5,298	68,551	55,488	13,063
Sustainable Forest Management	29,130	32,608	3,478	32,608	33,741	(1,133)
Resources and services provided to the Conservation Commission of Western Australia	556	825	269	825	685	140
Parks and Visitor Services	51,862	53,084	1,222	53,084	50,796	2,288
Astronomical Services	1,205	1,292	87	1,292	1,187	105
Total Cost of Outputs	146,006	156,360	10,354	156,360	141,345	15,015
Less total revenues from ordinary activities	(40,435)	(46,645)	(6,210)	(46,645)	(61,984)	15,339
Net Cost of Outputs	105,571	109,715	4,144	109,715	79,913	29,802
Adjustments (1)	6,327	7,878	1,551	7,878	16,899	(9,021)
Total appropriations provided to purchase outputs	111,898	117,593	5,695	117,593	96,812	20,781
Capital Expenditure						
Purchase of non-current physical assets	15,961	18,433	2,472	18,433	15,824	2,609
Repayment of borrowings	123	0	(123)	0	3,810	(3,810)
Adjustment for other funding sources	(12,248)	(15,597)	(3,349)	(15,597)	(12,269)	(3,328)
Capital Contribution (appropriation)	3,836	2,836	(1,000)	2,836	7,365	(4,529)
DETAIL OF REVENUE ESTIMATES						
Revenues disclosed as Administered Revenues	85	125	40	125	110	15

(1) Adjustments are related to movements in cash balances and other accrual items such as receivables, payables and superannuation.
The Summary of Consolidated Fund Appropriations, Variance to Actual and Budget should be read in conjunction with the accompanying notes.
This Summary provides the basis for the Explanatory Statement information requirements of T1 945, set out in Note 39.

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

1. DEPARTMENTAL MISSION AND FUNDING

For the 2002–2003 financial year the Department's mission was, in partnership with the community, to conserve Western Australia's natural diversity of plants, animals, and other organisms, and the lands and waters entrusted to the Department for the benefit and appreciation of present and future generations.

In 2002–2003 the Department was predominantly funded by Parliamentary appropriations. The Department provided the outputs as disclosed at Note 3. Government policy determines the fees charged.

In the process of reporting on the Department as a single entity, all intra-entity transactions and balances have been eliminated.

As part of the State Government's Machinery of Government framework announced on 21 June 2001, the Department will be renamed the Department of Conservation when legislation is amended.

2. SIGNIFICANT ACCOUNTING POLICIES

The following accounting policies have been adopted in the preparation of the financial statements. Unless otherwise stated these policies are consistent with those adopted in the previous year.

General Statement

The financial statements constitute a general purpose financial report which has been prepared in accordance with Australian Accounting Standards, Statements of Accounting Concepts and other authoritative pronouncements of the Australian Accounting Standards Board, and Urgent Issues Group (UIG) Consensus Views as applied by the Treasurer's Instructions. Several of these are modified by the Treasurer's Instructions to vary application, disclosure, format and wording. The *Financial Administration and Audit Act 1985* and the Treasurer's Instructions are legislative provisions governing the preparation of financial statements and take precedence over Australian Accounting Standards, Statements of Accounting Concepts and other authoritative pronouncements of the Australian Accounting Standards Board, and UIG Consensus Views. The modifications are intended to fulfil the requirements of general application to the public sector, together with the need for greater disclosure and also to satisfy accountability requirements.

If any such modification has a material or significant financial effect upon the reported results, details of that modification and where practicable, the resulting financial effect, are disclosed in individual notes to these financial statements.

Basis of accounting

The financial statements have been prepared in accordance with Australian Accounting Standard AAS29.

The statements have been prepared on an accrual basis using historic cost accounting, with the exception of certain non-current assets and liabilities, which, as noted, are measured at fair value.

Administered assets, liabilities, expenses and revenues are not integral to the Department in carrying out its functions and are disclosed in the notes to the financial statements, forming part of the general purpose financial report of the Department. The administered items are disclosed on the same basis as is described above for the financial statements of the Department. The administered assets, liabilities, expenses and revenues are those which the Government requires the Department to administer on its behalf. The assets do not render any service potential or future economic benefits to the Department, the liabilities do not require the future sacrifice of service potential or future economic benefits of the Department, and the expenses and revenues are not attributable to the Department.

As the administered assets, liabilities, expenses and revenues are not recognised in the principal financial statements of the Department, the disclosure requirements of Australian Accounting Standard AAS 33, Presentation and Disclosure of Financial Instruments, are not applied to administered transactions.

a) Output Appropriations

Output Appropriations are recognised as revenues in the period in which the Department gains control of the appropriated funds. The Department gains control of appropriated funds at the time those funds are deposited into the Department's bank account or credited to the holding account held at the Department of Treasury and Finance. Refer to Note 17 for further commentary on output appropriations.

b) Contributed Equity

Under UIG 38 'Contributions by Owners Made to Wholly-Owned Public Sector Entities' transfers in the nature of equity contributions must be designated by the Government (owners) as contributions by owners (at the time of, or prior to transfer) before such transfers can be recognised as equity contributions in the financial statements. Capital contributions (appropriations) have been designated as contributions by owners and have been credited directly to Contributed Equity in the Statement of Financial Position. All other transfers have been recognised in the Statement of Financial Performance.

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2003

c) Net Appropriation Determination

Pursuant to section 23A of the *Financial Administration and Audit Act*, the Treasurer may make a determination providing for prescribed revenue to be retained by a department. Receipts in respect of all revenues recognised in the Statement of Financial Performance are the subject of a net appropriation determination by the Treasurer.

The net appropriation determination allows all prescribed revenues to be retained.

Prescribed revenues include moneys received other than from taxes, royalties and Commonwealth general purpose grants.

Retained revenues may only be applied to the outputs specified in the 2002–2003 Budget Statements.

d) Grants and Other Contributions Revenue

Grants, donations, gifts and other non-reciprocal contributions are recognised as revenue when the Department obtains control over the assets comprising the contributions. Control is normally obtained upon their receipt. Contributions are recognised at their fair value. Contributions of services are only recognised when a fair value can be reliably determined and the services would be purchased if not donated.

e) Operating Accounts

Amounts appropriated are deposited into the Department's bank account and any revenues that are the subject of net appropriation determinations are deposited into the account. Revenues not subject to net appropriation determinations are credited to the Consolidated Fund. All payments of the Department are made from the operating account.

f) Depreciation of non-current assets

All non-current assets having a limited useful life are systematically depreciated over their useful lives in a manner that reflects the consumption of their future economic benefits.

Depreciation is calculated on the straight-line basis, using rates which are reviewed annually. Useful lives for each class of depreciable asset are:

Buildings	20 – 40 years
Furniture	10 years
Office Equipment	6 – 7 years
Computer Equipment	4 years
Aircraft	5 – 6 years
Boats	5 years
Plant and Machinery	4 – 10 years
Heavy Fleet Vehicles	5 years
Recreation / Tourism Assets	10 – 20 years

g) Revaluation of Land, Buildings and Infrastructure

The Department has a policy of valuing land, buildings and infrastructure at fair value.

Freehold land held in the name of the Executive Director, Crown land in the conservation estate and vested State Forest are valued by the Valuer General on either a market value or current use basis. The Valuer General provided a revaluation for 2002–2003 that has been recognised in the financial statements.

Crown land is reserved for or held by the Conservation Commission of Western Australia for the conservation and land management purposes prescribed by the *Conservation and Land Management Act 1984*. Should the land no longer be reserved or held for these purposes the land becomes Crown land within the meaning of the *Land Administration Act 1997* and thus would no longer be vested in the Conservation Commission. Therefore land of this nature cannot be sold by the Department to meet liabilities or fund activities.

The value of tourism facilities standing on the land is reported separately from the Valuer General's land valuation.

h) Recognition of Revenue

Revenue from the sale of goods and disposal of other assets and the rendering of services, is recognised when the Department has passed control of the goods or other assets or delivery of the service to the customer.

i) Employee benefits

Annual leave

This benefit is recognised at the reporting date in respect to employees' services up to that date and is measured at the nominal amounts expected to be paid when the liabilities are settled.

Long Service Leave

The liability for long service leave expected to be settled within 12 months of the reporting date is recognised in the provisions for employee benefits and is measured at the nominal amounts expected to be paid when the liability is settled. The liability for long service leave expected to be settled more than 12 months from the reporting date is recognised in the provisions for employee benefits and is measured at the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given, when assessing expected future payments, to expected future wage and salary levels including relevant on costs, experience of employee departures and periods of service. Expected future payments are discounted using market yields at the reporting date on national government bonds with terms to maturity and currency that match, as closely as possible, the estimated future cash outflows.

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

Superannuation

Staff may contribute to the Pension Scheme, a defined benefits pension scheme now closed to new members, or to the Gold State Superannuation Scheme, a defined benefit lump sum scheme now also closed to new members. All staff who do not contribute to either of these schemes become non-contributory members of the West State Superannuation Scheme, an accumulation fund complying with the Commonwealth Government's *Superannuation Guarantee (Administration) Act 1992*. All of these schemes are administered by the Government Employees Superannuation Board (GESB)

The superannuation expense comprises the following elements:

- i) change in the unfunded employer's liability in respect of current employees who are members of the Pension Scheme and current employees who accrued a benefit on transfer from that Scheme to the Gold State Superannuation Scheme. Employer contributions have been paid to the Gold State Superannuation scheme since the inception of the scheme in 1987; and
- ii) employer contributions paid to the Gold State Superannuation Scheme and the West State Superannuation Scheme.

The superannuation expense does not include payment of pensions to retirees, as this does not constitute part of the cost of services provided by the Department in the current year.

A revenue 'Liabilities assumed by the Treasurer' equivalent to (i) is recognised under Revenues from Government in the Statement of Financial Performance as the unfunded liability is assumed by the Treasurer. The GESB makes the benefit payments and is recouped by the Treasurer.

The total unfunded liability assumed by the Treasurer for current employees in the Gold State Superannuation Scheme for pre 1987 service is \$14.28M (2001–2002 \$12.39M).

The total unfunded liability assumed by the Treasurer in respect of the Pension Scheme pensions that will be payable to current employees when they retire is \$2.7M. (2001–2002 \$2.49M).

j) Leases

The Department has entered into a number of operating lease arrangements for the rent of buildings, office equipment and motor vehicles where the lessor effectively retains all of the risks and benefits incidental to ownership of the items held under the operating leases. Equal instalments of the lease payments are

charged to the operating statement over the lease term as this is representative of the pattern of benefits to be derived from the leased property.

The Department had no finance lease commitments during 2002–2003.

k) Receivables

Receivables are recognised at the amounts receivable as they are due for settlement no more than 30 days from the date of recognition.

Collectability of accounts receivable is reviewed on an ongoing basis. Debts that are known to be uncollectable are written off. A provision for doubtful debts is raised where reasonable doubts as to collection exist.

l) Accrued Salaries

The Treasury accrued salaries suspense account (refer note 18) consists of amounts paid annually into a suspense account maintained at Treasury over a period of 10 financial years to meet the additional cash outflow in each eleventh year when 27 pay days occur in that year instead of the normal 26. No interest is received on this account.

Accrued salaries (refer note 28) represent the amount due to staff but unpaid at the end of the financial year, as the end of the last pay period for that financial year does not coincide with the end of the financial year. Accrued salaries are settled within a few days of the financial year end. The Department considers the carrying amount of accrued salaries to be equivalent to the net fair value.

m) Payables

Payables, including accruals not yet billed, are recognised when the Department becomes obliged to make future payments as a result of a purchase of assets or services. Payables are generally settled within 30 days.

n) Inventories

Inventories have been valued at the lower of cost and net realisable value.

o) Accrued Superannuation

Accrued superannuation represents the Department's estimated liability at the end of year for employer superannuation contributions to the Government Employees Superannuation Board. The Department receives fortnightly invoices in arrears.

p) Resources Received Free-of-Charge or For Nominal Value

Resources received or provided free-of-charge or for nominal value that can be reliably measured are recognised as revenues or expenses as appropriate at fair

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

value.

q) Comparative Figures

Comparative figures are, where appropriate, reclassified so as to be comparable with the figures presented in the current financial year.

r) Rounding

Amounts in the financial statements have been rounded to the nearest thousand dollars, or in certain cases, to the nearest dollar.

s) Acquisition of Assets

The cost method of accounting is used for all acquisitions of assets. Cost is measured as the fair value of the assets given up or liabilities undertaken at the date of acquisition plus incidental costs directly attributable to the acquisition.

Assets acquired at no cost or for nominal consideration, are initially recognised at their fair value at the date of acquisition.

t) Cash

For the purpose of the Statement of Cash Flows, cash includes cash assets and restricted cash assets. These include short-term deposits that are readily convertible to cash on hand and are subjected to insignificant risk of changes in value.

3. OUTPUTS OF THE DEPARTMENT

Information about the Department's outputs and, the expenses and revenues which are reliably attributable to those outputs is set out in the Output Schedule.

The five key outputs of the Department are: -

Output 1: Nature Conservation

This output comprises the conservation of indigenous plants, animals and ecological processes in natural habitats.

Output 2: Sustainable Forest Management

This output comprises the long term maintenance of the forest ecosystem.

Output 3: Resources and Services Provided to the Conservation Commission of Western Australia

This output comprises the provision of resources and services to the Conservation Commission of Western Australia for the satisfaction of its functions.

Output 4: Parks and Visitor Services

This output comprises Community enjoyment and appreciation of parks, wildlife and the natural environment without compromising conservation and management objectives.

Output 5: Astronomical Services

This output comprises Astronomical information and services for the benefit of the community.

	2002-2003	2001-2002
	(\$'000)	(\$'000)
4. EMPLOYEE EXPENSES		
Wages and salaries	60,631	52,880
Superannuation	6,396	4,079
Annual Leave	2,550	3,234
Long Service Leave	5,840	3,538
Other related expenditure	633	308
	<u>76,050</u>	<u>64,039</u>
	These employee expenses include superannuation, workers compensation premiums and other employment on-costs associated with the recognition of annual and long service leave liability. The related on-costs liability is included in employee benefit liabilities at Note 27.	
5. SUPPLIES AND SERVICES		
Consultants and contractors	2,978	2,276
Services and contracts	13,694	13,652
Materials	20,198	16,983
Repairs and maintenance	1,808	1,729
Travel	2,094	1,802
GEHA rental expense	1,444	1,640
	<u>42,216</u>	<u>38,082</u>
6. DEPRECIATION AND AMORTISATION EXPENSE		
Plant, equipment and vehicles	4,884	4,712
Buildings	2,212	2,199
Recreation and tourism facilities	4,147	3,674
Goodwill	4	0
	<u>11,247</u>	<u>10,585</u>
7. ADMINISTRATION EXPENSES		
Communications	1,899	1,875
Services received free-of-charge	798	833
Doubtful debts expense	(223)	344
Other staff costs	1,820	1,493
Other administration costs	68	479
	<u>4,362</u>	<u>5,024</u>
8. ACCOMMODATION EXPENSES		
Lease rentals	797	714
Electricity, power and water	1,472	1,000
Other accommodation expenses	4	5
	<u>2,273</u>	<u>1,719</u>
9. GRANTS & SUBSIDIES		
Recurrent		
Conservation Council of WA Inc	139	13
Bibbulman Track Foundation	100	0
Forest Heritage Centre	50	0
Urban Bushland Council	20	17
Oil Mallee Association of WA	20	319
Green Skills Inc	10	129
City of Cockburn	5	0
Friends of Yellagonga Regional Park	5	0

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

	2002–2003 (\$'000)	2001–2002 (\$'000)		2002–2003 (\$'000)	2001–2002 (\$'000)
Mullewa LCDC	5	0			
Friends of Baigup	5	0			
Kalgoorlie Boulder Urban Landcare Group	5	30			
WA Landskills Inc	5	0			
Oil Mallee Company	1	50			
Eastern Wheatbelt Oil Mallee	1	14			
Central Oil Mallee Region Inc	1	14			
Upper Great Southern Oil Mallee Growers	1	14			
World Wide Fund for Nature	0	46			
Midwest Oil Mallee Association	0	14			
Cockburn Wetlands Education Centre	0	10			
Various Grants under \$5,000	<u>122</u>	<u>84</u>			
	<u>495</u>	<u>754</u>			
10. CAPITAL USER CHARGES	<u>9,865</u>	<u>11,237</u>			
A capital user charge rate of 8% has been set by the Government for 2002–2003 and represents the opportunity cost of capital invested in the net assets of the Department used in the provision of outputs. The charge is calculated on the net assets adjusted to take account of exempt assets. Payments are made to the Department of Treasury and Finance on a quarterly basis.					
11. OTHER EXPENSES FROM ORDINARY ACTIVITIES					
Operating Lease – Motor Vehicle	6,810	6,665			
Operating Lease – Rental Expense	2,450	1,948			
Carrying amount of disposed non-current assets	592	1,335			
	<u>9,852</u>	<u>9,948</u>			
12. USER FEES AND CHARGES					
User fees	8,738	7,509			
Services rendered	19,032	30,040			
	<u>27,770</u>	<u>37,549</u>			
13. COMMONWEALTH GRANTS AND CONTRIBUTIONS					
Capital	1,524	1,187			
Recurrent	2,751	8,420			
	<u>4,275</u>	<u>9,607</u>			
14. OTHER GRANTS AND CONTRIBUTIONS					
Capital	1,460	1,402			
Recurrent	4,356	4,777			
	<u>5,816</u>	<u>6,179</u>			
15. PROCEEDS FROM DISPOSAL OF NON-CURRENT ASSETS					
Plant, equipment and vehicles	653	584			
Land	480	763			
	<u>1,133</u>	<u>1,347</u>			
Net profit on sale of assets	<u>541</u>	<u>12</u>			
			16. OTHER REVENUES FROM ORDINARY ACTIVITIES		
			Publications revenue	483	462
			Mining Compensation revenue	3,525	3,534
			Nursery revenue	148	72
			Other revenues	1,339	1,058
				<u>5,495</u>	<u>5,126</u>
			17. REVENUES FROM GOVERNMENT		
			Appropriations received during the year:		
			Output appropriations	117,438	96,664
			<i>Salaries & Allowances Act 1975</i>	155	148
			Total appropriations (i)	<u>117,593</u>	<u>96,812</u>
			Superannuation liability assumed by Treasurer (ii)	466	(1,059)
			Resources received free-of-charge (iii)		
			Determined on the basis of the following estimates provided by agencies:		
			Department of Land Administration	547	631
			Crown Solicitor's Office	158	117
			Office of the Auditor General	85	77
			Agriculture Western Australia	8	8
				<u>798</u>	<u>833</u>
			Land valued at \$2.7M was transferred to Edith Cowan University during the year ended 30 June 2002:	0	(2,717)
			Assets assumed	171	0
				<u>119,028</u>	<u>93,869</u>
			(i) Output appropriations are accrual amounts as from 1 July 2001, reflecting the full price paid for outputs purchased by the Government. The appropriation revenue comprises a cash component and a receivable (asset). The receivable (holding account) comprises the depreciation expense for the year and any agreed increase in leave liability during the year.		
			(ii) Where a liability has been assumed by the Treasurer or other entity, the department recognises revenues equivalent to the amount of the liability assumed and an expense relating to the nature of the event or events that initially gave rise to the liability.		
			(iii) Where assets or services have been received free-of-charge or for nominal consideration, the department recognises revenues equivalent to the fair value of the assets and/or the fair value of those services that can be reliably determined and which would have been purchased if not donated, and those fair values shall be recognised as assets or expenses, as applicable.		

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

	2002–2003 (\$'000)	2001–2002 (\$'000)		2002–2003 (\$'000)	2001–2002 (\$'000)
18. RESTRICTED CASH ASSETS			Buildings at cost	14,353	11,513
Current			Accumulated Depreciation	(1,937)	(1,371)
Cash amounts in suspense account	45	69	Sub Total	<u>12,416</u>	<u>10,142</u>
	<u>45</u>	<u>69</u>			
Non-current			Plant and Equipment at valuation, 1995–96	3,600	3,894
Accrued salaries suspense account (i)	2,275	2,000	Accumulated Depreciation	(3,445)	(3,384)
	<u>2,275</u>	<u>2,000</u>	Sub Total	<u>155</u>	<u>510</u>
(i) Amount held in the suspense account is only to be used for the purpose of meeting the 27th pay in a financial year that occurs every 11 years.			Plant and Equipment at cost	23,526	21,322
			Accumulated Depreciation	(12,712)	(11,179)
			Sub Total	<u>10,814</u>	<u>10,143</u>
19. INVENTORIES			Vehicles at cost	16,351	15,302
Publications	2,827	2,504	Accumulated Depreciation	(10,711)	(10,013)
Souvenirs	222	171	Sub Total	<u>5,640</u>	<u>5,289</u>
Nursery Stock	30	6			
	<u>3,079</u>	<u>2,681</u>	Total Property, Plant, Equipment and Vehicles	<u>2,050,865</u>	<u>2,055,429</u>
20. RECEIVABLES					
Receivables	7,157	7,207	All land holdings are revalued each year by the Valuer- General on the basis of current use value where the land is subject to restriction in its use or disposal, or market value for freehold land.		
Provision for doubtful debts	(332)	(1,292)	The Valuer-General provided valuations on a depreciated replacement cost basis for major Department depot buildings and offices in 1996–97 and for all other buildings over 1997–98 and 1998–99.		
GST Receivable from ATO	1,128	1,123	In 1995–96 a licensed plant and machinery valuer, Mr Keith Haslam, provided a valuation of assets at the State Observatory and of the Department's marine vessels, fire equipment and spotter aircraft.		
Capital user charge	28	0			
Earned revenue	253	123			
	<u>8,234</u>	<u>7,161</u>			
21. AMOUNTS RECEIVABLE FOR OUTPUTS					
Current	3,214	314			
Non Current	14,174	10,500			
	<u>17,388</u>	<u>10,814</u>			
This asset represents the non-cash component of output appropriations. It is restricted in that it can only be used for asset replacement or payment of leave liability.					
22. OTHER ASSETS			24. INTANGIBLE ASSETS	<u>221</u>	<u>0</u>
Current				<u>221</u>	<u>0</u>
Prepayments	687	609	The Department purchased a tourism business in 2002– 2003 with a goodwill component. The goodwill is being amortised over a 5-year period.		
	<u>687</u>	<u>609</u>			
23. PROPERTY, PLANT, EQUIPMENT AND VEHICLES			25. OTHER NON-CURRENT ASSETS		
Land at valuation 01/07/02	1,995,940		Parks and Visitor Facilities at valuation, 1997–98, 2001–02	63,519	63,519
Land at valuation 01/07/01	0	2,001,387	Accumulated Depreciation	(19,432)	(15,941)
Land at cost	2,794	3,230	Sub Total	<u>44,087</u>	<u>47,578</u>
Sub Total	<u>1,998,734</u>	<u>2,004,617</u>	Parks and Visitor Facilities at cost	12,675	7,709
Buildings at valuation 1996–97, 1997–98, 1998–99	32,656	32,647	Accumulated Depreciation	(1,468)	(812)
Accumulated Depreciation	(9,550)	(7,919)	Sub Total	<u>11,207</u>	<u>6,897</u>
Sub Total	<u>23,106</u>	<u>24,728</u>	Work in Progress	5,101	3,763
			Total Other Non-Current Assets	<u>60,395</u>	<u>58,238</u>

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

2002–2003

	Plant, Equipment & Vehicles (\$'000)	Parks & Visitor Facilities (\$'000)	Land (\$'000)	Buildings (\$'000)	Assets under construction (\$'000)	Total (\$'000)
Carrying amount at start of year	15,942	54,475	2,004,617	34,870	3,763	2,113,667
Additions	5,862	4,966	2,794	2,913	1,338	17,873
Disposals	93	0	439	44	0	576
Revaluation decrements	0	0	8,238	0	0	8,238
Depreciation	4,884	4,147	0	2,212	0	11,243
Write off assets	55	0	0	0	0	55
Assets transferred to other Government departments	163	0	0	5	0	168
Carrying amount at end of year	16,609	55,294	1,998,734	35,522	5,101	2,111,260

	2002–2003 (\$'000)	2001–2002 (\$'000)		2002–2003 (\$'000)	2001–2002 (\$'000)
In 1997–98 the Valuer-General endorsed officers' valuations made on a depreciated replacement cost basis of recreation facilities throughout the State. In 2001–02 the Valuer-General provided a valuation of the Bibbulmun Track and its facilities on a depreciated replacement cost basis.			Employee Benefits Liability		
Reconciliations of the carrying amounts of asset categories at the beginning and end of the current and previous financial year are set out above:			The aggregate employee entitlement liability recognised and included in the financial statements is as follows:		
			Provision for employee entitlements:		
			Current	11,832	9,210
			Non Current	5,495	5,342
				17,327	14,552
26. PAYABLES			28. OTHER LIABILITIES		
Trade payables	4,476	6,257	Current		
	<u>4,476</u>	<u>6,257</u>	Accrued expenditure	1,202	1,730
			Accrued Wages & Salaries	1,366	1,208
27. PROVISIONS			Accrued Superannuation	222	97
Current			Accrued Capital User charge	0	712
Current annual leave	5,447	4,350	Unearned Revenue	111	212
Current long service leave	5,213	3,948		2,901	3,959
Other	1,172	912			
	11,832	9,210	29. EQUITY		
Non-current			Equity represents the residual interest in the net assets of the Department. The Government holds the equity interest in the Department on behalf of the community.		
Long service leave	4,950	4,812	Distribution of equity to Government		
Other	545	530	Opening balance	(235,052)	(234,998)
	5,495	5,342			
Total Provisions	17,327	14,552	The following forestry assets and liabilities were distributed to Government for transfer to the Forest Products Commission for the year.		
(I) The settlement of annual and long service leave liabilities gives rise to the payment of employment on-costs including superannuation and workers compensation premiums. The liability for such on-costs is included for 2002–2003 but was not for 2001–2002. The 2002–2003 current annual leave liability was also increased by the return of the 17½ % leave loading to leave rather than progressive payment during the year. The associated expense is included under Other related expenditure (under Employee expenses) at Note 4.			Plant & Equipment		(2)
			Buildings	(168)	(52)
			Closing balance	<u>(235,220)</u>	<u>(235,052)</u>
			Contributed equity		
			Opening balance	7,377	0
			Capital contributions (I)	2,836	7,365
			Assets transferred from the		
			Forest Products Commission	0	12
			Closing balance	10,213	7,377

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT - NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

	2002-2003 (\$'000)	2001-2002 (\$'000)		2002-2003 (\$'000)	2001-2002 (\$'000)
(I) From 1 July 2001, capital appropriations, termed Capital Contributions, have been designated as contributions by owners and are credited straight to equity in the Statement of Financial Position.			Non-cash items:		
Asset Revaluation Reserve			Depreciation expense	11,247	10,585
Balance at beginning of year	1,979,326	1,854,384	Superannuation liability assumed by the Treasurer	466	(1,059)
Revaluation during the year:			Resources received free-of-charge	798	833
- Land	(8,238)	116,630	(Profit) / loss on sale of assets	(541)	(12)
- Parks & Visitors assets	0	8,312	(Increase) / decrease in current assets:		
Balance at end of year	<u>1,971,088</u>	<u>1,979,326</u>	Accounts receivables	98	1,980
			Inventories	(398)	(310)
			Prepayments	(78)	(52)
			Other Current Assets	(1,223)	748
			Net GST Receipts (Payment)	(236)	(583)
			Increase / (decrease) in employee provisions	2,775	1,003
			Increase / (decrease) in other current liabilities	(246)	112
			Accounts Payable	(1,044)	(37)
			Accrued Capital User charge	(712)	712
			Net Cash Used in Operating Activities	<u>(99,607)</u>	<u>(66,826)</u>
The Asset Revaluation Reserve represents that portion of equity resulting from the revaluation of non-current assets. The balance at the end of the year of \$M1,979 is comprised of Land (\$M1,961.5), Parks & Visitors Assets (\$M8.3) and Buildings (\$M1.2).					
Accumulated Surplus / (Deficit)			31. RESOURCES PROVIDED FREE-OF-CHARGE		
Balance at beginning of year	390,975	377,852	During the year the following resources were provided to other agencies free of charge for functions outside the normal operations of the Department:		
Change in net assets resulting from operations and restructuring	8,515	13,123	Conservation Commission of Western Australia (expenses)	0	58
Balance at the end of the year	<u>399,490</u>	<u>390,975</u>		0	58
30. NOTES TO THE STATEMENT OF CASH FLOWS			32. COMMITMENTS FOR EXPENDITURE		
(a) Reconciliation of cash			Non-cancellable operating lease commitments		
Cash assets	27,086	30,393	Not later than 1 year	4,039	4,114
Restricted cash assets (refer to note 18)	2,320	2,069	Later than 1 year and not later than 5 years	17,224	15,441
	<u>29,406</u>	<u>32,462</u>	Later than 5 years	4,076	4,193
				<u>25,339</u>	<u>23,748</u>
(b) Reconciliation of net cost of services to net cash flows provided by / (used in) operating activities					
Net cost of services	<u>(110,513)</u>	<u>(80,746)</u>			

33. FINANCIAL INSTRUMENTS

	Weighted Average Effective Interest Rate	Variable Interest Rate	Fixed Interest Rate Maturity			Non- Interest Bearing	Total
			Less than 1 Year	1 to 5 Years	More than 5 Years		
2003	%	\$000	\$000	\$000	\$000	\$000	Financial
Assets							
Cash assets	4.88	27,051	-	-	-	-	27,051
Restricted cash assets	4.88	45	-	-	-	2,275	2,320
Receivables		-	-	-	-	7,157	7,157
		<u>27,096</u>	-	-	-	9,432	36,528
Financial Liabilities							
Payables		-	-	-	-	4,476	4,476
		-	-	-	-	4,476	4,476
2002							
Financial assets	4.48	30,462	-	-	-	9,250	39,668
Financial liabilities	-	-	-	-	-	6,257	6,257

The amounts shown in the above table are considered to represent fair value. Credit risk for financial assets has been assessed and a doubtful debt provision made for receivables as shown at Note 20.

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

	2002–2003 (\$'000)	2001–2002 (\$'000)
34. REMUNERATION AND RETIREMENT BENEFITS OF SENIOR OFFICERS		
Remuneration		
The number of senior officers, whose total of fees, salaries and other benefits received, or due and receivable, for the financial year, fall within the following bands are:		
\$	2002–2003	2001–2002
80,000 – 90,000	0	0
90,000 – 100,000	0	1
100,000 – 110,000	0	1
110,000 – 120,000	6	6
120,000 – 130,000	1	0
160,000 – 170,000	0	1
170,000 – 180,000	1	0
200,000 – 210,000	0	0
280,000 – 290,000	0	1

The total remuneration (including retirement benefits) of senior officers is:

	995	1,322
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Retirement Benefits

In respect of Senior Officers the following amounts were paid for in the financial year:

Contributions to Gold State and West State Superannuation Schemes	87	99
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No senior officers are members of the Pension Scheme.

35. SUPPLEMENTARY INFORMATION

Write-Offs

Losses of Public Money and Public or other Property

Irrecoverable amounts	737	19
Other (includes obsolete equipment)	7	16
General (includes thefts reported to Police, lost property and stock taking deficiencies)	20	1
	764	36

Public and other property, revenue and other debts due to the state written off in accordance with Section 45 of the Financial Administration and Audit Act.

Approved by the Executive Director	38	21
Approved by the Minister / Governor.	726	15
	764	36

	2002–2003 (\$'000)	2001–2002 (\$'000)
36. ADMINISTERED EXPENSES AND REVENUES		
Expenses		
Transfer payments (i)	0	1,286
Receipts paid into Consolidated fund	127	107
Total administered expenses	127	1,393
Revenues		
For Transfer:		
Fauna Licences	125	110
Contractors Deposits	0	41
Total administered revenues	125	151

(i) Deposits held for the satisfactory completion of contracts related to Forest Products Commission operations were transferred to the Forest Products Commission.

37. ADMINISTERED ASSETS AND LIABILITIES

Current Assets		
Cash assets		2
Total Administered Current Assets	0	2
Total Administered Assets	0	2
Current Liabilities		
Payables	0	2
Contractors deposits	0	-
Total Administered Current Liabilities	0	2
Total Administered Liabilities	0	2

(i) Deposits held for the satisfactory completion of contracts related to Forest Products Commission operations were transferred to the Forest Products Commission.

38. CONTINGENT LIABILITIES

In addition to the liabilities incorporated in the financial statements, the Department has the following contingent liabilities:

(a) Litigation in progress

Various claims for damages have been lodged against the Department. The Department has denied liability and the Accountable Officer is of the opinion that no material loss will be incurred.

(b) Native title claims

Native title claims have been made on departmental land of which some have yet to be determined.

39. EXPLANATORY STATEMENT

The Summary of Consolidated Fund Appropriations and Revenue Estimates discloses appropriations and other statutes expenditure estimates, the actual expenditures made and revenue estimates and payments into the Consolidated Fund. Appropriations are now on an accrual basis.

The following explanations are provided in accordance with Treasurer's Instruction 945.

Significant variations are considered to be those greater than 10% or above \$3.0M.

	2002-03	2002-03	
	Estimate	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

(I) SIGNIFICANT VARIANCES BETWEEN ESTIMATE AND ACTUAL – TOTAL APPROPRIATION TO PURCHASE OUTPUTS:

Item 68 Net amount appropriated to purchase outputs	111,725	117,438	5,713
Total revenues from ordinary activities	40,435	46,645	6,210

Total appropriation provided to purchase outputs for the year

The increase in this item relates principally to unbudgeted expenditure on wildfire suppression of \$6.3 million.

Other adjustments concern unbudgeted amounts for depreciation \$0.9 million, public liability payments \$0.711 million, chemical cleanup at Dwellingup \$0.527 million, Greenhouse strategy plan \$0.32 million, native vegetation clearing controls implementation \$0.24 million, National Aerial Firefighting Strategy \$0.2 million. Offsetting these increases to the appropriation was the deferral of salinity strategy expenditure (original funding from AlintaGas sale proceeds) from 2002-03 to 2003-04, \$3.485 million.

Total revenue

Additional revenues for 2002-03 were attributable to tourism and recreation income \$1 million, mining compensation receipts \$1 million and recoups from the Forests Products Commission for services supplied \$3 million.

Details of Expenses by Outputs

Nature Conservation	63,253	68,551	5,298
Sustainable Forest Management	29,130	32,608	3,478
Resources and services provided to the Conservation Commission of Western Australia	556	825	269

- Nature Conservation

The increased expenditure in this output relates principally to the severe wildfire season experienced in 2002-03 whereby actual expenditure exceeded budget by \$5.4 million.

	2002-03	2002-03	
	Estimate	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

- Sustainable Forest Management

The increased expenditure in this output was due to the severe wildfire season experienced in 2002-03 whereby actual expenditure exceeded budget by \$1.45 million and additional recoupable projects undertaken for the Forest Products Commission, \$1.49 million.

- Resources and services provided to the Conservation Commission of Western Australia

Additional expenditure in 2002-03 related to costs associated with producing the new Forest Management Plan.

	2002-03	2001-02	
	Actual	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

(II) SIGNIFICANT VARIANCES BETWEEN ACTUAL AND PRIOR YEAR ACTUAL – TOTAL APPROPRIATION TO PURCHASE OUTPUTS:

Item 68 Net amount appropriated to purchase outputs	117,438	96,664	20,774
Total revenues from ordinary activities	46,645	61,984	(15,339)
Total appropriation provided to purchase outputs for the year			

The large increase in the appropriation to the Department was mainly attributable to the changed financial arrangements with the Forest Products Commission with respect to native forest management, \$10.6 million, and supplementary funds provided for wildfire suppression, \$6.3 million.

Other major increases include: *Protecting our old-growth forests* policy allocation for national parks \$2 million, payroll increases \$1.178 million, salinity funding \$1.147 million, depreciation \$0.9 million, public liability payments \$0.711 million, chemical cleanup at Dwellingup \$0.527 million, and other miscellaneous \$0.292 million. Offsetting the increased appropriation amounts was a budget reduction of \$1.131million required to meet the Government's Priority and Assurance Dividend targets (2nd year) and a reduction for a one off increase provided in 2001-02 to meet a public liability claim \$1.75 million.

Total revenue

Reduction in revenues was mainly attributable to a change in financial arrangements with the Forest Products Commission for native forest management \$10.46 million and reduced Commonwealth grants and contributions such as from the Natural Heritage Trust \$5.332 million.

**DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT – NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 30 JUNE 2003**

	2002-03	2001-02	
	Actual	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

Details of Expenses by Outputs

Nature Conservation	68,551	55,488	13,063
Resources and services provided to the Conservation Commission of Western Australia	825	685	140

- Nature Conservation

The major reason for increased expenditure in the nature conservation output was the severe fire season experienced in 2002-03, \$5.8 million.

Other increases include: expenditure in new or proposed national parks created under the Government's *Protecting our old-growth forests* policy \$1 million, depreciation charges \$0.9 million and salinity strategy expenditure \$0.8 million.

In addition to the above items a general increase in payroll costs were experienced in 2002-03 due to increased staff numbers and award pay increases.

- Resources and services provided to the Conservation

Commission of Western Australia

Additional expenditure in 2002-03 related to costs associated with producing the new Forest Management Plan.

	2002-03	2002-03	
	Estimate	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

(III) SIGNIFICANT VARIANCES BETWEEN ESTIMATE AND ACTUAL – CAPITAL CONTRIBUTION:

Capital Expenditure

Purchase of non-current physical assets	15,961	18,433	2,472
Repayment of borrowings	123	0	(123)

Purchase of non-current physical assets

During 2002-03 the Department's capital expenditure exceeded the estimate for the following categories: improvements to tourism facilities \$1.89 million, fire fighting fleet replacement \$1.08 million, plant and equipment \$0.48 million and other \$0.32 million. Total expenditure on conservation land purchase was \$1.3 million below the estimate due to the time required to finalise negotiations and settlements.

Repayment of borrowings

The Department finalised its outstanding debt liability in 2001-02 thus requiring no further repayment of borrowings.

	2002-03	2001-02	
	Actual	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

(IV) SIGNIFICANT VARIANCES BETWEEN ACTUAL AND PRIOR YEAR ACTUAL – CAPITAL CONTRIBUTION:

Capital Expenditure

Purchase of non-current physical assets	18,433	15,824	2,609
Repayment of borrowings	0	3,810	(3,810)

Purchase of non-current physical assets

Expenditure on tourism facilities during 2002-03 increased by \$2.45 million when compared to 2001-02.

Other categories of capital expenditure experienced minor variations.

Repayment of borrowings

The Department finalised its outstanding debt liability in 2001-02 thus requiring no further repayment of borrowings.

(V) SIGNIFICANT VARIANCES BETWEEN ESTIMATE AND ACTUAL AND ACTUAL AND PRIOR YEAR ACTUAL -ADMINISTERED REVENUES:

	2002-03	2002-03	
	Estimate	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

Revenues disclosed as Administered Revenues	85	125	40
---	----	-----	----

	2002-03	2001-02	
	Actual	Actual	Variance
	(\$'000)	(\$'000)	(\$'000)

Revenues disclosed as Administered Revenues	125	110	15
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Administered revenues relate mainly to the collection of royalties for the issuing of kangaroo tags. Activity in this area has increased resulting in additional collections in 2002-03 when compared to the estimate and the prior year actual.

**AUDITOR GENERAL****INDEPENDENT AUDIT OPINION****To the Parliament of Western Australia****DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2003****Audit Opinion**

In my opinion,

- (i) the controls exercised by the Department of Conservation and Land Management provide reasonable assurance that the receipt, expenditure and investment of moneys, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions; and
- (ii) the financial statements are based on proper accounts and present fairly in accordance with applicable Accounting Standards and other mandatory professional reporting requirements in Australia and the Treasurer's Instructions, the financial position of the Department at June 30, 2003 and its financial performance and cash flows for the year ended on that date.

Scope***The Executive Director's Role***

The Executive Director is responsible for keeping proper accounts and maintaining adequate systems of internal control, preparing the financial statements, and complying with the Financial Administration and Audit Act 1985 (the Act) and other relevant written law.

The financial statements consist of the Statement of Financial Performance, Statement of Financial Position, Statement of Cash Flows, Output Schedule of Expenses and Revenues, Summary of Consolidated Fund Appropriations and Revenue Estimates, and the Notes to the Financial Statements.

Summary of my Role

As required by the Act, I have independently audited the accounts and financial statements to express an opinion on the controls and financial statements. This was done by looking at a sample of the evidence.

An audit does not guarantee that every amount and disclosure in the financial statements is error free. The term "reasonable assurance" recognises that an audit does not examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the financial statements.

A handwritten signature in black ink, appearing to read 'D D R Pearson'.

D D R PEARSON
AUDITOR GENERAL
September 15, 2003

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APPENDIX 1 AREA OF PRESCRIBED BURNS FOR ALL DEPARTMENT REGIONS 2000–2001 TO 2002–2003

	2000–2001	2001–2002	2002–2003
Indigenous Vegetation - Hand Burning (ha)			
State forest	4,266	7,027	3,455
National parks	4,528	5,754	38,924
Nature reserves	2,178	3,024	2,496
Other Crown land and private property	676	470	3,549
Total	11,648	16,275	48,424
Indigenous Vegetation - Aerial Burning (ha)			
State forest	34,769	24,958	60,386
National parks	63,123	13,747	85,845
Nature reserves	3,220	13,256	8,384
Other Crown land and private property	243	839	4,152
Total	101,355	52,801	158,767
Indigenous Vegetation - Silviculture Burning (ha)			
• Jarrah	14,276	17,042	41,603
• Karri	3,345	1,873	1,621
• Wandoo	-	-	-
Total	17,621	18,915	43,224
Softwood Plantation - Burning (ha)			
State forest			
• fuel reduction	7,656	8,306	4,671
• second rotation clearing burns	75	582	-
* logging debris removal	-	-	433
Total	7,731	8,888	5,104
Grand Total	138,355	96,878	255,519

For data specific to Southwest Forest regions see Appendices 4 and 5.

APPENDIX 2
WILDFIRES IN ALL DEPARTMENT REGIONS 2000–2001 TO 2002–2003
NUMBER AND AREA BY LAND CATEGORY AND NUMBER AND PER CENT BY CAUSE

All Department Regions	Number			Area Burnt (ha)		
	2000–2001	2001–2002	2002–2003	2000–2001	2001–2002	2002–2003
State forest						
• native hardwood	160	192	197	3,073	2,330	56,854
• softwood plantation	153	63	72	187	122	5,140
National parks	71	63	93	442,382	360,469	532,274
Nature reserves	56	36	53	295,201	27,820	158,383
Other Department reserves	51	57	42	31,668	83,951	62,441
Other Crown lands	91	82	68	1,053,545	88,483	1,148,195
Private property	129	111	131	14,590	14,735	148,631
Total	711	604	656	1,840,647	577,910	2,111,919

	Number			Per cent		
	2000–2001	2001–2002	2002–2003	2000–2001	2001–2002	2002–2003
Deliberately/illegally lit	327	280	172	46	46	26
Escapes—Department burns	5	5	8	1	1	1
Escapes—other burning	47	25	36	7	4	5
Accidental—timber industry	4	3	4	1	0	1
Accidental—other industries	29	16	18	4	3	3
Accidental—recreationists	35	32	19	5	5	3
Lightning	83	101	275	12	17	42
Unknown	151	113	103	21	19	16
Other causes	30	29	21	4	5	3
Total	711	604	656	100	100	100

APPENDIX 3
AREA AND NUMBER OF WILDFIRES FOR ALL DEPARTMENT REGIONS 2002–2003

Region		State forest native hardwood	State forest softwood plantation	National parks	Nature reserves	Crown lands and private property	Total
Southwest Forest Regions							
Swan	Area (ha)	1,413	5,100	19,389	313	17,449	43,663
	Number	115	55	38	18	110	336
South West	Area (ha)	445	41	927	108	833	2,353
	Number	46	16	14	3	48	127
Warren	Area (ha)	52,991	0.1	34,834	2,647	3,254	93,728
	Number	33	1	18	7	27	86
Sub Total	Area (ha)	54,849	5,140	55,150	3,068	21,537	139,744
	Number	194	72	70	28	185	549
Other Regions							
Kimberley	Area (ha)	-	-	373,163	-	120,151	493,314
	Number	-	-	5	-	4	9
Pilbara	Area (ha)	-	-	-	-	41,000	41,000
	Number	-	-	-	-	1	1
Midwest	Area (ha)	-	-	11,139	15,011	73,239	99,390
	Number	-	-	6	6	16	28
Goldfields	Area (ha)	-	-	10	4,000	59,701	63,711
	Number	-	-	1	2	6	9
Wheatbelt	Area (ha)	0.1	-	-	9,022	303,748	312,770
	Number	1	-	-	8	8	17
South Coast	Area (ha)	2,005	-	92,812	127,282	739,892	961,991
	Number	2	-	11	9	21	43
Sub Total	Area (ha)	2,005	-	477,124	155,315	1,337,731	1,972,175
	Number	3	-	23	25	56	107
Grand Total	Area (ha)	56,854	5,140	532,274	158,383	1,359,267	2,111,919
	Number	197	72	93	53	241	656

APPENDIX 4
AREAS PRESCRIBED BURNT WITHIN SOUTHWEST FOREST REGIONS FOR 2002–2003

Dominant purpose	Forest Region	Area (hectares)				Years since last burnt
		Winter	Spring	Summer	Autumn	
Strategic fire protection	Swan	1,297	4,738	-	7,924	5 - 27
	South West	-	3,681	-	2,462	5 - 18
	Warren	-	2,325	367	5,272	9 - 37
Silviculture	Swan	5,749	10,725	-	-	7 - 21
	South West	-	18,123	-	2,853	6 - 19
	Warren	-	2,543	139	2,680	6 - 23
Nature Conservation	Swan	117	274	-	-	15 - 18
	South West	-	5,950	-	1,496	8 - 20
	Warren	-	32,463	-	16,835	4 - 21
Tourism and Recreation	Swan	3,379	109	-	3,204	11 - 23
	South West	10	-	-	2	11 - 16
	Warren	-	-	-	3,209	10 - 31
Softwood	Swan	2,477	39	-	1,420	11 - 19
	South West	-	2,062	-	911	6 - 20
	Warren	-	-	-	-	
Grand Total by season (ha)		13,029	83,032	506	48,268	
Grand Total (ha)			144,835			

APPENDIX 5
NUMBER OF PRESCRIBED BURNS CONDUCTED WITHIN SOUTHWEST FOREST REGIONS IN EACH SEASON FOR VARIOUS PURPOSES IN 2002–2003

Dominant purpose	Forest Regions	Winter		Spring		Summer		Autumn		Total No. of burns	No. of escapes
		Aero	Hand	Aero	Hand	Aero	Hand	Aero	Hand		
Fuel reduction	Swan	1	1	3	4	-	-	4	-	13	-
	South West	-	-	1	2	-	-	2	-	5	-
	Warren	-	-	1	3	1	-	3	4	12	1
Silviculture	Swan	2	-	5	-	-	-	-	-	7	-
	South West	-	-	11	-	-	-	2	1	14	-
	Warren	-	-	3	9	-	6	1	21	40	-
Nature Conservation	Swan	-	1	-	2	-	-	-	-	3	-
	South West	-	-	2	1	-	-	-	2	5	-
	Warren	-	-	6	2	-	-	7	2	17	3
Tourism and Recreation	Swan	1	-	-	2	-	-	1	2	6	-
	South West	-	1	-	-	-	-	-	1	2	-
	Warren	-	-	-	-	-	-	3	1	4	-
Softwood	Swan	-	15	-	2	-	-	1	-	18	-
	South West	-	-	2	1	-	-	-	8	11	-
	Warren	-	-	-	-	-	-	-	-	-	-
Total		4	18	34	28	1	6	24	42	157	4

**APPENDIX 6
TRENDS IN THE AREA OF NATIVE FOREST HARVESTED**

	<u>Jarrah Forest</u>	<u>Jarrah/Wandoo Forest</u>	<u>Karri Forest</u>	
	ha	ha	Clearfelled or cut to seed trees	Thinned
	ha	ha	ha	ha
1976-77	32,320	1 170	2,610	-
1977-78	26,020	740	4,450	-
1978-79	25,540	530	2,710	-
1979-80	25,150	860	2,110	60
1980-81	22,930	1,440	2,080	180
1981-82	24,680	610	2,180	320
1982-83	23,740	330	990	190
1983-84	21,540	580	1,490	260
1984-85	20,010	1,440	2,360	500
1985-86	22,640	650	1,590	340
1986	19,340	1,150	1,090	490
1987	17,180	1,380	1,310	700
1988	23,400	490	1,180	840
1989	15,130	200	1,510	910
1990	12,960	100	1,560	340
1991	10,910	-	1,920	230
1992	13,990	30	1,540	310
1993	14,250	40	1,630	80
1994	14,050	50	1,440	-
1995	17,830	30	2,410	-
1996	22,320	50	1,300	60
1997	18,240	60	1,870	60
1998	19,250	60	1,970	320
1999	14,200	50	1,890	360
2000	20,570	10	1,310	70
2001	15,760	*	1,380	120
2002	13,260	30	700	350

* Jarrah/wandoo harvested included in jarrah total.

**APPENDIX 7
WILDLIFE LICENCES ISSUED IN 2002–2003**

Fauna Licences	Licences Issued	Fauna Licences (Cont.)	Licences Issued
SCIENTIFIC		KANGAROO	
Scientific Collection (Reg 17)	341	Take Kangaroos for sale (Reg 6)	325
Bird/Bat Banding (Reg 23)	109	Deal in carcasses (Reg 8)	30
EDUCATION & PUBLIC		Skin Dealing (Reg 10)	14
(to take) (Reg 15)		Processing (Reg 7)	21
Marine interaction	257	EXPORTS INTERSTATE	
Other	207	Skins of fauna (or other dead fauna)	79
EDUCATION & PUBLIC		Fauna (live)	245
(to hold) (Reg 16)	108	Herpetofauna (reptiles and amphibians)	1
AVIAN FAUNA			325
Keep & breed in captivity (Reg 12)	3,505	EXPORT OVERSEAS	
Deal (Reg 13)	46	Skins of fauna (or other dead fauna) from WA	53
Breed for Commercial Purposes (Reg 14)	0	Emu eggs or products (personal items) from WA	4
Trap (Reg 11)	3	Fauna (avian) from WA (live)	7
SPECIES TRAPPED COMMERCIALY	Number		64
Twenty-eight Parrot	263	IMPORTS INTERSTATE	
Red-capped Parrot	16	Skins of fauna (or other dead fauna) into WA	7
Western Rosella	230	Australian fauna (live)	279
Long-billed Corella (Eastern ssp)	151	Live exotic birds and other animals	165
FAUNA		Herpetofauna (reptiles and amphibians)	16
Keep in Captivity (Reg 12A)	115		467
HERPETOFAUNA (Reptiles and Amphibians)		Total Fauna Licences	6,115
Keeping	136	Flora Licences	
Dealing	4	Commercial Purposes	453
Farming	1	Commercial Producers	406
Taking	2	Scientific/Prescribed Purposes	1,128
EMUS		Sandalwood (from Crown Land)	50
Emu Farming (Reg 14)	21	Sandalwood (from Private Land)	27
Dealing (Reg 8)	4	Permits To Take Declared Rare Flora	116
Dealing (Emu eggshells Reg 13)	5		
Processing (Reg 7)	2	Total Flora Licences	2,180
CROCODILES			
Crocodile Farming (Reg 14)	2		
Skin Dealing (Reg 10)	0		
Processing (Reg 7)	1		

**APPENDIX 8
SUMMARY OF DAMAGE LICENCES AND DANGEROUS FAUNA LICENCES ISSUED IN 2002–2003**

	No. of Licences Issued	Total No. of Each Species Authorised to be Taken		No. of Licences Issued	Total No. of Each Species Authorised to be Taken
OTHER AVIAN FAUNA			WATERFOWL		
Australian Raven	27	293	Eurasian Coot	4	430 trap and relocate
Brolga	5	Scare only	Little Pied Cormorant	1	2
Brown Goshawk	1	5 trap and relocate	Maned Geese	26	234 and 267 trap and relocate
Galah	15	2825	Mountain Duck	7	150 and 30 scare only
Little Corella	27	2735 and 5 scare only	Pacific Black Duck	1	100
Magpie Lark	4	4	Pelican	4	21 scare only
Osprey	4	Scare only	Pied Cormorant	4	11
Red-tailed Black Cockatoo	5	50 Scare only	Great Cormorant	2	40 scare only
Red-capped Parrot	5	230	EMU	114	25041
Silver Gull	7	750	MAMMALS		
Twenty Eight Parrots	35	2453	Euro	34	5570
Wedge Tailed Eagles	4	5 scare only	Grey Kangaroo	976	86038 and 6 trap and relocate
Welcome Swallow	3	750	Red Kangaroo	53	4674
Western Long-billed Corella	43	7964 and 1450 scare or destroy	DANGEROUS FAUNA		
Baudin's Black Cockatoo	8	360 scare only	Butcherbirds	2	3
Kookaburra	3	2 and 2 trap and relocate	Galah	2	50
Sulphur-crested Cockatoo	1	60	Magpie	87	98
Silvereye	1	300	S/W Crocodile	5	5
			Western Grey Kangaroo	1	5
			Kookaburra	1	3

APPENDIX 9
OFFENCES UNDER THE CONSERVATION AND LAND MANAGEMENT ACT AND
REGULATIONS AND WILDLIFE CONSERVATION ACT AND REGULATIONS, 2002–2003

Charges	Recomm'd Charges	Convic- tions	Fines \$	Costs \$	Dismissed	Letter of Warning	No. Further Action	Pending
CONSERVATION and LAND MANAGEMENT ACT								
Illegal taking or possession of forest produce.	25	2	\$1,000.00	\$115.40	0	14	6	3
Offences relating to the occupation of Department land.	4	0	0	0	0	0	1	3
Offences relating to Marine Parks and Reserves.	2	0	0	0	0	2	0	0
CONSERVATION and LAND MANAGEMENT REGULATIONS								
Offences relating to disease risk areas.	6	0	0	0	0	5	1	0
Offences relating to activities on State Forests, Nature Reserves and National Parks.	82	8	\$1,700.00	\$175.10	0	23	28	23
Totals	119	10	\$2,700.00	\$290.50	0	44	36	29
WILDLIFE CONSERVATION ACT								
Use of illegal devices in taking fauna.	2	0	0	0	0	0	2	0
Illegal taking or possession of protected fauna.	50	17	\$1,100.00	\$87.05	0	14	17	2
Illegal importation, selling or taking for sale of fauna.	16	0	0	0	0	13	2	1
Offences relating to the taking or possession of rare or threatened fauna.	25	9	\$1,400.00	\$87.05	0	8	2	6
Illegal taking of protected flora.	89	12	\$4,400	\$490.95	0	29	19	29
Offences relating to the sale of protected flora.	33	5	\$2,600.00	\$144.75	0	2	4	22
Taking declared rare flora without the Minister's consent.	11	0	0	0	0	8	3	0
Offences against wildlife officers.	9	0	0	0	0	1	0	8
Failing to comply with licence conditions.	23	0	0	0	0	13	8	2
WILDLIFE CONSERVATION REGULATIONS								
Offences relating to the acquisition, possession, control and disposal of fauna.	32	0	0	0	0	20	9	3
Totals	290	43	\$9,500.00	\$809.80	0	108	66	73

	30-6-02	Revised	30-6-03
Total Offences Reported	478	468	409
Convictions	39	94	53
Dismissals	0	0	0
Letters of Warning	129	239	152
No Further Action	87	123	102
Pending	223	12	102
Total Fines	\$6,050.00	\$20,950.00	\$12,200.00
Total Costs	\$2,141.90	\$10,399.00	\$1,100.30

Note: Figures for 2001-02 reported offences are updated from those included in last year's report under the Revised column.

APPENDIX 10 PUBLICATIONS PRODUCED IN 2002–2003

GENERAL

Annual Report of the Department of Conservation and Land Management
-2002–2003
Arbor Day (poster)
CALM Bush Ranger Location Maps, 2 issues
CALM Bush Ranger's Annual Plan 2003
CALM Bush Rangers Annual Report 2002
CALM Public Participation (manual)
Carnac Island Nature Reserve Management Plan
Conservation News (newspaper, 12 issues)
Dwellingup Cleanup (leaflet)
Graduate Recruits (leaflet)
Indigenous Ownership and Joint Management of Conservation Lands
Consultation Paper
Lands and Waters Managed by CALM (leaflet)
LANDSCOPE Calendar 2004
LANDSCOPE Expeditions – Astronomical Adventure (report)
LANDSCOPE Expeditions – Beyond the Dreaming (report)
LANDSCOPE Expeditions – Buckshot and Breakaways (report)
LANDSCOPE Expeditions – Dirk Hartog Island (report)
LANDSCOPE Expeditions – Plants and Animals of the Gibson Desert
(report)
LANDSCOPE Expeditions Program 2003
LANDSCOPE Magazine (4 issues)
Management Plan for the Parks of the Walpole Wilderness Area (leaflet)
Mitchell Plateau Expedition – *LANDSCOPE* Expedition Report
Ningaloo Marine Park world Heritage Listing (3 leaflets)
Organisational Learning and Development Manual
Peer Support Program(leaflet)
Perth Observatory (leaflet)
Public Participation Training Plan 2003
Public Service Training Package (leaflet)
Sharing the Dreaming (booklet)
Stars and Telescopes Perth Observatory Visitor Activities (leaflet)
WA Nature-based Tourism 2003 Exchange and Supplier workshop (leaflet)
Watchout! Fire Safety (poster)
Yellagonga Regional Park Management Plan

NATURE CONSERVATION

Biodiversity Conservation Act Consultation Paper
Biodiversity Conservation Values on the Barrow Island Nature Reserve
(report)
Book that Bird (book)
Buntine - Marchagee Catchment News (2 newsletters)
Bushcare Plan (booklet)
Bushcare Program (booklet)
Coastal Flora (poster)
Common Birds of the South-West Forests – Bush Book
Common Plants of the Kimberley – Bush Book
Conservation Science WA Vol 4 Nos 1 & 2 & 3 (journal)
Dog Owners Beware (leaflet)
Dryandra Woodland Ecoeducation (leaflet)
Dryandra Woodland Ecology Course (leaflet)
Dryandra Woodland Ecology Course (poster)
Ecoplan News - 4 issues (newsletter)
Fire Symposium Volume 2 : Community Perspectives About Fire (report)
Forrestdale Lake Nature Reserve : Draft Management Plan (leaflet)
Fungi of the South West – Bush Book
Greenhouse Strategy Draft Report
Kanyana – *LANDSCOPE* extract (leaflet)
Land For Wildlife (leaflet)

Mammals of the South West – Bush Book
Marine Conservation Matters (2 newsletters)
Monkey Mia Magic (leaflet)
Monkey Mia News (newsletter)
Muridulla Yellows – *LANDSCOPE* extract (leaflet)
Nuytsia Vol 15 no 1
Pilbara Biological Survey (leaflet)
Pilbara Region Biological Survey (leaflet)
Protection, Revegetation, Regeneration (book)
Regional Summaries from the 2003 Biodiversity Audit of WA (report)
Sea Lions and Fur Seals (leaflet)
Teachers Guide: Companion to Diversity of the Southern Carnarvon
Basin (booklet)
The Capes Coast – *LANDSCOPE* extract (leaflet)
Thomsons Lake and Forrestdale Lake Public Submission (leaflet)
Thomsons Lake Nature Reserve : Draft Management Plan (leaflet)
Threatened Ecological Communities (3 posters)
Toolibin Lake Recovery Project (leaflet)
Trees of the South West – Bush Book
Western Australia and Greenhouse (booklet)
Western Wildlife Newsletter (4 issues)
WILDCARE (bumper stickers)
Wildlife Carers List (booklet)

TOURISM AND RECREATION

A Guide to Lane Poole Reserve Dwellingup (magpaper)
A Visitors Guide to WA's Mid Western National Parks and Reserves
(leaflet)
A Visitors Guide to WA's Northern National Parks and Reserves (leaflet)
A Visitors Guide to WA's Southern National Parks and Reserves (leaflet)
Badgingarra Nature Trail (leaflet)
Barna Mia Visitor Centre - Dryandra Woodland (leaflet)
Beneath the Busselton Jetty (book)
Bibbulmun Track, Southern Half Guide (book)
Celebrating the Waters of the Capes (magpaper)
Coral Bay Boating Strategy
Dryandra Woodland Trail Guide (leaflet)
Dryandra Woodland Trail Guide (leaflet)
Dryandra Woodland Visitor Information (leaflet)
Dryandra Woodland Visitor Information (leaflet)
Eagles View Walk Trail (leaflet)
Experiencing Whale Sharks in Ningaloo Marine Park (leaflet)
Exploring the Hills Forest (leaflet)
Exploring the Hills Forest Ecoeducation Program (booklet)
Fees and Charges : A visitors Guide (leaflet)
Fitzgerald River National Park (leaflet)
Forest Heritage Centre Site Guide (leaflet)
Geikie Gorge Postcards
Go with a Guide (leaflet)
Have Your Say – Lane Poole (leaflet)
Have Your Say – Walpole Wilderness Area (leaflet)
Hiring Matilda Bay Reserve (leaflet)
John Forrest National Park (leaflet)
Jurien Bay Marine Park (leaflet)
Kalbarri National Park (leaflet)
Karijini National Park Visitor Information and Walk Trail Guide (leaflet)
Lane Poole Reserve (leaflet)
Marine Tour Operators Handbook
Millstream-Chichester National Park Visitor Information and Walk Trail
Guide 2003 (leaflet)
Mirima National Park (leaflet)
Munda Biddi Messenger (3 newsletters)

Munda Biddi Trail – A Forest Cycling Adventure (leaflet)
 Nambung National Park (leaflet)
 Nearer to Nature (3 leaflets)
 Parks of the Coral Coast (leaflet)
 Purnululu National Park (leaflet)
 Recreation Sites in the Wellington District (leaflet)
 Serpentine National Park (leaflet)
 Solar Eclipse – Eye Safety (leaflet)
 Tour Operator Handbook
 Touring Western Australia (2 newsletters)
 Valley of the Giants: Easter Activity Program 2003 (leaflet)
 Visitor Survey (leaflet)
 WA Naturally Newsletter (4 issues)
 Whale Shark Experience (poster)
 Why We Need Public Moorings at Coral Bay (leaflet)
 Wilderness Survival Card
 Wolfe Creek Crater (leaflet)
 Yanchep National Park (leaflet)
 Your Essential Partner – South-West Nature Tourism Handbook

SUSTAINABLE FOREST MANAGEMENT

Tree Growers Information Kit
 Tuart Atlas Information Sheet
 Tuart Response Group (leaflet)

SCIENTIFIC PUBLICATIONS

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