Conservation planning covers the making of judgements about what to conserve (priorities for conservation) and how best to do this, plus the development of processes by which this is done.

**OBJECTIVE:**
To improve the process for establishing conservation priorities for NSW to ensure:
- integration of natural, cultural and community values
- consultation and transparency
- responsiveness to threats and to change.

**STRATEGIES:**
- Develop, in consultation with the community and other government agencies, agreed criteria for cultural and natural significance to enable the establishment of conservation priorities for NSW.
- Provide leadership to, and work with other government agencies to establish conservation priorities for NSW as a whole-of-government initiative.
- Implement conservation priorities through regional planning, consulting with the community and other government agencies at all stages.
- Improve the process for the development of plans of management by benchmarking against best practice and ensuring that they reflect broader bioregional priorities.
Conservation planning

Biodiversity planning

NSW Coastal Policy

The NPWS is a member of the NSW Coastal Council, which is responsible for monitoring the implementation of the NSW government’s coastal policy, a whole-of-government approach to protecting and managing the state’s coastal zone.

The NPWS has primary responsibility for the implementation of 24 of the policy’s strategic actions and reports annually to the council on progress in meeting its responsibilities. The council’s annual reports can be viewed on its website at www.coastalcouncil.nsw.gov.au.

In June 2001 the NSW Premier announced an $11.7 million coastal package to protect and provide a planning blueprint for the state’s coast. The package includes $8.6 million for a comprehensive coastal assessment (CCA), which is expected to be completed by mid 2005. The assessment will involve the systematic study of the coast’s environmental, social and economic values and will identify those parts which are suitable for development and those which require protection. The NPWS has a key role in the assessment and the following projects have been approved as part of that process:

- Vegetation Mapping Audit
- Fauna habitat data audit, evaluation and recommendations for gap filling
- Vegetation Survey and Mapping
- Aboriginal Cultural Heritage Audit and Assessment
- Decision Support Tools — C-Plan component
- Decision Support Tools — ‘biodiversity assessment toolkit’ component
- Determination of Wetlands of High Conservation Value and Their Threats.

Establishment of parks and reserves

This year saw the establishment of 69 new reserves and 73 reserve additions, totalling 480,539 hectares, bringing the total land area under reservation to 7.36 per cent of NSW.

Much of the area reserved during 2002-03 was associated with the final stages of reservations of outstanding areas arising from the Regional Forest Agreements in eastern NSW undertaken over the past eight years. This saw the reservation of 36

Murrarang National Park.
additions to forest national parks and nature reserves in north-eastern NSW, and the upgrading of 21 Crown Reserves, formerly under the Crown Lands Act, to State Conservation Areas under the National Parks and Wildlife Act. These reservations helped protect poorly conserved forest ecosystems and to consolidate the boundaries of existing forest national parks and nature reserves in eastern NSW.

Other areas reserved include several small but significant additions to many coastal reserves including Tilligery and Montague Island nature reserves; Myall Lakes, Wambina, Tomaree, Hat Head, Broadwater, Botany Bay, Ben Boyd, Bouddi, Murramarang, Ku-ring-gai Chase, Jervis Bay and Bournda national parks; and Munmorah State Conservation Area.

Around 68% of the area of land reserved this year was in western NSW, reflecting a shift in NPWS focus towards a balanced state-wide approach to protecting samples of all NSW ecosystems in the reserve system. The larger western areas include:

**Paroo-Darling National Park**
This new park incorporates a 136,373 hectare addition to the former Peery National Park, and is the major new park established in 2002-03. Located north-east of Wilcannia, it samples a wide range of semi-arid environments associated with the lower end of the Paroo River floodplain and middle reaches of the Darling River Floodplain.

The park contains a wide diversity of sites of Aboriginal cultural significance, many of which were being degraded through continual grazing and erosion. The park contains one of the best collections of remnants of pastoral occupation of semi-arid NSW, forming part of what was originally one property (Momba) in the 19th century.

**Oolambeyan National Park**
This new 21,851 hectare park is located about 60 kilometres south-east of Hay in south-west NSW, the first substantial reserve to be established in this region of NSW. Prior to its reservation less than 0.2% of the Riverina Biogeographic Region was protected within reserves, making it the most poorly conserved region of NSW. The park samples native grasslands, shrublands, and acacia woodlands on the heavy soils of the Hay Plain, white cypress woodlands on sandy ridges, and numerous swamps and slowly draining linear depressions.

Oolambeyan National Park supports a number of threatened species, including the nationally vulnerable plains-wanderer (*Pedionomus torquatus*), which has its only remaining stronghold in this region.

**Ledknapper Nature Reserve**
This 16,339 hectare reserve north of Bourke in north-west NSW samples areas of spinifex-ironbark and brigalow ecosystems, both now unique to this part of the state.
**Additions to Gundabooka National Park**

This 20,311 hectare addition is seen as the core of the future Gundabooka National Park. It brings into the park most of the spectacular Gunderbooka Range, and significant associated Aboriginal sites.

**Additions to Mungo National Park**

This 60,790 hectare addition is the culmination of a program of government land acquisition within the Willandra World Heritage Area. It represents the results of several years of negotiation between the government, pastoral lessees, and the mining industry, and sees the bulk of the Willandra Lakes and associated sand dune lunettes protected within the park.

**Additions to Sturt National Park**

This 14,695 hectare addition to Sturt National Park in the north-west corner of NSW protects ecosystems that were not sampled within the existing park, such as the Black Stump Land System (stone-strewn dissected uplands and sandplains) and ranges of slate and phyllite.

**Acquisition of wilderness**

**Dunphy Wilderness Fund**

The Dunphy Wilderness Fund (DWF) was initially established in September 1996 in memory of Milo Dunphy and his father Myles, to purchase freehold and leasehold land to add to existing wilderness. The initial government funding commitment was $1 million each year for five years from 1996-97 until 2000-01. The Premier extended this commitment with an additional $5 million provided for the fund until June 2005. The fund has exceeded this commitment in two of the seven years of its operation and the total spent to date on Dunphy Wilderness Fund acquisitions is approaching $8.3 million.

The fund is overseen by the Dunphy Wilderness Fund Reference Group (DWFRG) which includes representatives from the NPWS, Nature Conservation Council of NSW, the Colong Foundation for Wilderness and the Foundation for National Parks & Wildlife. The DWFRG provides advice on acquisition criteria, reviews the acquisition program and promotes the fund.

As part of the fund’s marketing strategy, the Foundation for National Parks & Wildlife initiated a campaign this year to raise further funds. The Green Gully Appeal aims to encourage donations from both corporate and individual donors to purchase the spectacular 13,000 hectare Green Gully wilderness property near Armidale, to enhance the Macleay Gorges wilderness area.

Through the Dunphy Wilderness Fund, the NPWS has acquired 49 properties and an additional two properties are in the final stages of purchase. The total area purchased under the Dunphy Wilderness Fund over its seven years of operation stands at 55,916 hectares. Acquisitions for 2002-03 will form additions to the Washpool, Tuggalo, Ettrema, Deua, Cathedral Rock and Timbarra wilderness areas.

**Dark Point Aboriginal Place**

The Minister for the Environment has declared over seven kilometres of coastline within Myall Lakes National Park as Dark Point Aboriginal Place. The 647 hectare declaration is formal recognition of the cultural significance of the area for the Worimi people, who have used it for at least 4000 years. Dark Point contains human skeletal remains and stone objects from areas such as Barrington Tops. It also contains the remains of five mammal species, and 17 aquatic animals. The area will be jointly managed by the NPWS and Worimi Aboriginal community and motor vehicle access has been excluded to protect the sites.

**CASE STUDY**

*Parts of Towra Point, on the southern shores of Botany Bay, have been listed as an Aboriginal Place.*
Additional freehold and leasehold properties within identified wilderness have been purchased by the NPWS under other land acquisition programs.

Declaration of Aboriginal areas and places

The 2002-03 Aboriginal Place program has seen the declaration of five new Aboriginal Places, including South Brother Mountain (Port Macquarie), Farquhar Park (Taree), Dark Point (Myall Lakes), Mount Mackenzie (Gloucester) and Towra Point (Kurnell). This increases the number of declarations since the Aboriginal Place Program was established in 1999 to 17, and a total of 42 Aboriginal Places throughout New South Wales. Tabulam Cemetery, originally investigated as an Aboriginal Place, has recently been acquired by the NPWS and will be gazetted as an Aboriginal Area. A further four Aboriginal Place nominations are in the finalisation stage for declaration.

Plans of management

*The National Parks and Wildlife Act 1974 requires that a plan of management be prepared for each park and reserve. A plan of management is a legal document outlining how the area will be managed in the future, and the procedures for exhibition and adoption of a plan of management are laid down in the Act. During the last year 11 plans of management were adopted by the Minister for the Environment for the following 16 areas:

- Myall Lakes National Park and Little Broughton Island and Stormpetrel nature reserves
- Yatteyattah Nature Reserve
- Ben Halls Gap National Park
- Cape Byron State Conservation Area
- Newington Nature Reserve
- Torrington State Conservation Area
- Boronga, Boomi and Boomi West nature reserves
- Goulburn River National Park and Munghorn Gap Nature Reserve
- Wiesners Swamp Nature Reserve
- Pilliga Nature Reserve
- Nadgee Nature Reserve

In addition, 48 plans covering 65 areas were placed on public exhibition over the year. This brings the total number of plans adopted since 1995 to 97, covering 143 areas.

The National Parks and Wildlife Advisory Council has specific responsibilities under the National Parks and Wildlife Act to consider and advise the Minister for the Environment on plans of management and any representations received in response to public exhibition of a plan. The Advisory Council considered and reported on 15 plans of management for 21 NPWS-managed areas during 2002-03.
CASE STUDY

Towra Beach nourishment

The Towra Point wetlands represent the largest and most diverse estuarine wetland complex remaining in the Sydney region. As a result of developments in Botany Bay, Towra Beach has been subject to accelerated erosion since the early 1970s, resulting in dramatic foreshore recession.

Under grant funds provided by the NSW Environmental Trust, the NPWS in conjunction with the Towra Point Steering Committee has commenced a beach nourishment project to restore the foreshore alignment of Towra Beach. The Waterways Authority is managing the project on behalf of the NPWS and has commissioned the preparation of an Environmental Impact Statement for the proposal.

The proposed works involve removing 60,000 cubic metres of sand from the downdrift areas of Towra Spit and Towra Spit Island and placing it along Towra Beach to form a dune along the most severely eroded section of the beach. The dune would be high enough to prevent wave over-wash into Towra Lagoon and wide enough to provide protection against erosion for at least 10 years.

CASE STUDY

Giant fern

Implementation of the recovery plan for the giant fern (Angiopteris evecta) is now in its second year. Only one individual of the species is known to exist within NSW, and its genetic material has been collected and is stored in the DNA Bank at Southern Cross University. Other recovery actions currently under way include growing giant fern propagules, which will be established and used for population expansion and the establishment of second population. Ongoing site management for this species has included the drafting and implementation of a habitat rehabilitation and maintenance program, including weed control and bush regeneration.

Progress for CRA reserves

Draft Plans of Management for six of the new Comprehensive Regional Assessment (CRA) reserves in the Monaro area are currently being developed. An initial Aboriginal cultural heritage assessment has been made for Bobundara, Ironmongy, Myalla, Paupong, Wullwye and Nimmo nature reserves to determine the likelihood of finding significant cultural sites. This information, combined with vegetation survey data for the reserves and public input, will form the basis of a draft plan of management due to be completed by the end of 2003.

Threatened species planning

Recovery plans

Twelve recovery plans have been prepared by the NPWS and approved by the NSW Minister for the Environment in the last 12 months, bringing the total to 52 plans covering 67 threatened species, populations and ecological communities.

An additional 24 draft plans have been placed on exhibition and a further 22 plans are complete and awaiting exhibition. Another 150 plans are currently in various stages of preparation. Overall, approximately 335 threatened species, populations and ecological communities have some form of recovery planning in action. A summary of the outcomes of recovery planning are described in the recently revised NPWS publication Saving our threatened native animals and plants — recovery and threat abatement in action.

Recovery plans approved by the Minister for the Environment during the past year include: Eriocaulon carsonii; black-eared miner (Manorina melanotis); brush-tailed rock-wallaby Warrumbungles population (Petrogale penicillata); downy wattle (Acacia pubescens); Illawarra greenhood orchid (Pterostylis gibosa); Elaeocarpus sp. Rocky Creek; Zieria lasiocalulis; Coxens fig parrot (Cyclopsitta diaphthalma coxeni); giant fern (Angiopteris evecta); Lord Howe Island woodhen (Gallirallus sylvestris); yellow-bellied glider (Petaurus australis); and granite boronia (Boronia granitica).

As the largest remaining habitat for the Mitchell’s rainforest snail (Thersites mitchelliae), Stotts Island Nature Reserve has been declared as Critical Habitat. Invasive weed species such as madeira vine, cats claw creeper and groundsel pose the greatest threat to the habitat values of the island. Extensive weed control and bush regeneration were undertaken in 2002-03 to control this threat.

Fewer than 50 individuals have been recorded of the northern sub-species of the eastern bristlebird. A cooperative recovery program has been established involving the Queensland Parks and Wildlife Service, various universities, other organisations and individuals. Population monitoring of all known territories is conducted annually to assist in the understanding of this species and its recovery requirements. This year’s survey detected about 12 birds within NSW — the low count probably related to prevailing drought conditions.

Approximately 24 sub-populations of the endangered small-leaved tamarind are known to survive in NSW and the NPWS undertook recovery actions in close consultation with private landholders in three areas of key habitat in 2002-03. Work included weed control and bush regeneration as well as fencing one population from the threat of cattle. Further recovery actions are planned over the next few years.

Stotts Island Nature Reserve is the last remaining habitat of the Mitchell’s rainforest snail.
**Threat abatement plans**

Several vertebrate pests and weeds have been listed as key threatening processes under the Threatened Species Conservation Act. These include predation of native fauna by foxes, feral cats, plague minnow (*Gambusia holbrooki*) and black rats (*Lord Howe Island* only), competition and grazing by rabbits, competition by feral honeybees, importation of red fire ants and invasion of native plant communities by bitou bush.

A draft threat abatement plan has been prepared for predation by feral cats and will be available for public comment later in the year.

The plague minnow (*Gambusia holbrooki*), a small introduced fish common throughout NSW waters, has been listed as a key threatening process and a draft threat abatement plan has been prepared by the NPWS.

**Foxes**

Planning for fox control for the conservation of native fauna in NSW is directed by the Fox Threat Abatement Plan. The plan was endorsed by the Minister for the Environment in December 2001 and the second year of the plan has now been implemented across the state by the NPWS, State Forests of NSW and the Department of Infrastructure, Planning and Natural Resources (formerly Land and Water Conservation).

Implementation of the plan represents a fundamental change in fox control, in particular identifying priorities for management across all land tenures by pinpointing which threatened species are at greatest risk of population impacts from fox predation and at which sites fox control for these species is most critical. Eighty-one priority sites for fox control have been identified, providing recovery actions for 34 threatened species (11 mammals, 15 birds and 8 reptiles). Undertaking collaborative fox control programs across all land tenures at these sites is the central action of the plan.

In addition, the plan identifies best practice guidelines for fox control, which seek to maximise the effectiveness of control programs while minimising the impact of control methods on non-target species. It also identifies research actions to refine these practices.

Finally, the plan outlines monitoring programs to measure the response of threatened species to fox control by testing critically whether threatened populations targeted for fox control are limited by fox predation. Such monitoring programs are fundamental to improving the effectiveness of the management of threatened species.

**Bitou bush**

The NPWS has been appointed the lead agency to coordinate the preparation and implementation of the National Bitou Bush and Boneseed Strategic Plan. A progress report on achievements towards actions listed in the national plan was prepared for the Australian Weeds Committee (see the National Weeds Strategy website www.weeds.org.au). Key achievements in New South Wales were:

- preparation of a state-wide strategy and drafting of the Bitou Threat Abatement Plan
- formation of several regional and local bitou bush taskforces and preparation of regional and local bitou bush management strategies
- mapping of the distribution and abundance of bitou bush along the entire NSW coastline
- stakeholder agreement to establish and implement northern and southern containment zones for bitou bush in NSW to support the continued drive to eradicate bitou bush from Queensland
- continued release and monitoring of biocontrol agents with a major focus on the tortrix leaf-roller moth.

High-priority actions identified in the national plan are to coordinate and implement on-ground works to eradicate bitou bush from sites of high conservation significance and prepare state-wide management strategies, or where appropriate threat abatement plans. A draft threat abatement plan has been prepared for NSW and will be available for public comment later in the year.

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**CASE STUDY**

**Critical habitat for the little penguin**

Several areas in Manly have been declared as critical habitat for the little penguin (*Eudyptula minor*) under the Threatened Species Conservation Act, protecting the species’ nesting areas and foraging habitat from the detrimental impacts of human activities.

In October 2000, a recovery plan was approved for the endangered population at Manly, the only known breeding population on the NSW mainland. On 20 December 2002, the Minister for the Environment declared several areas at Manly — including known and potential nesting areas and likely foraging habitat — as critical habitat for the little penguin. A regulation accompanying the declaration prohibits a number of activities within the critical habitat area, including companion animals (such as dogs and cats); fishing between sunset and sunrise during the breeding season; tampering with or damaging nest boxes, nesting burrows, or moulting penguins; and approaching within five metres of a little penguin on land.
Cultural heritage planning

The NPWS continued to focus on integrated landscape planning for cultural heritage projects, undertaking a number of large scale and complex planning projects that have identified, assessed and provided planning and policies for the integrated management of a comprehensive range of natural, Aboriginal and historic heritage values. Examples of projects completed or currently in preparation include Bantry Bay Explosives Depot Conservation Management Plan, Garigal National Park; Trial Bay Gaol Conservation Management and Cultural Tourism Plan, Arakoon State Conservation Area; Hartley Historic Site Conservation Management Plan; and Hill End Historic Site Masterplan.

Strategies have been completed for all 19 NPWS regions across the state and documents have been prepared with input from regional management and staff in a two-day workshop. The strategies identify long term conservation objectives based on the integrated assessment of natural, historic, Aboriginal and community heritage values. The strategies prioritise places and landscapes for active management for a range of significance values and risk management issues and highlight places that require further consultation with local Aboriginal and broader communities to ensure that community priorities and needs are being considered in park management.

Cultural heritage planning and risk management

Over the last 12 months a number of planning projects have incorporated the identification and assessment of risks to assist in best practice management of cultural heritage places in line with the NPWS Risk Management Strategic Plan. Risk assessments have been undertaken at Trial Bay Gaol, Arakoon State Conservation Area; Seaton’s Farm, Weddin Mountains National Park; and incorporated in the planning for the management of fabric for the Coastal Cabins in Royal National Park.
Marine park planning

Marine protected areas in NSW include marine parks (managed by the Marine Parks Authority), the marine components of national parks and nature reserves (managed by the NPWS), and aquatic reserves (managed by NSW Fisheries). The NSW Government is presently developing a representative system of marine protected areas as part of a national system.

Marine park planning is undertaken by the Marine Parks Authority, which consists of the Director-General of the Premier’s Department (Chairperson), the Director-General of the NPWS and the Director of NSW Fisheries. The authority ensures that the principal aim of conserving marine biodiversity and maintaining ecological processes can be met while also allowing for sustainable multiple use of marine parks.

The NPWS contributed to a number of marine park planning activities during 2002-03, including:

- finalisation and implementation of the zoning plan for Solitary Islands Marine Park, with 8650 hectares (12%) of the park now protected in sanctuary zones
- finalisation and implementation of the zoning plan for Jervis Bay Marine Park, with 4253 hectares (20%) of the park now protected in sanctuary zones
- establishment of Cape Byron Marine Park, the fourth marine park for NSW
- further development of a draft zoning plan for Lord Howe Island Marine Park, following analysis of submissions from public exhibition of draft zoning plans in 2001-02
- further development of bioregional assessments for NSW sections of the Manning Shelf, Hawkesbury Shelf, Batemans Shelf and Twofold Shelf marine/coastal bioregions
- continued development of a permit system, a geographic information system strategy and a marine parks education strategy
- further work on mapping and assessment of marine ecosystems and habitats on NPWS reserves
- integrated management planning for marine components of NPWS reserves through park plans of management.

CASE STUDY

Maynggu Ganai

Maynggu Ganai, meaning “people’s land”, was the name chosen by the local Wiradjuri community for the new Historic Site at Wellington. Also known as the Wellington Valley First Settlement Site and Convict Stockade, Aboriginal Mission and Agriculture Station, the site is considered of national significance for its rich shared history. A focus group representing the local community was formed to consult and collaborate with the NPWS on the site’s ongoing management, meeting regularly throughout the year. Funding for an Archaeological and Conservation Management Plan has been approved to provide management options on how to best conserve and interpret the site.
Other conservation planning

An agreement between the NPWS and TransGrid for the inspection and maintenance of TransGrid infrastructure within the reserve system was adopted by both agencies in October 2002. The agreement sets up consultation and notification processes to ensure that NPWS staff are aware of maintenance and inspection work proposed in a reserve. Features include: addressing threatened species and cultural heritage issues; only being applicable to the maintenance and inspection of existing transmission lines and communication sites; and the progressive preparation of environmental management plans.

The Snowy Mountains Hydro-electric Authority was corporatised on 28 June 2002 to become Snowy Hydro Limited (SHL), jointly owned by the NSW, Victorian and Commonwealth Governments. Throughout this first year, the NPWS and SHL have worked closely to implement the new regime, including the Snowy Park Lease, Roads Maintenance Agreement and Snowy Management Plan.

Marine mammals

The NPWS has statutory responsibility for ensuring the protection of marine mammals in NSW waters, and is involved in research to better understand possible impacts on animal welfare behaviour. An NPWS study in response to the growing interest in marine mammal watching tours has found that the marine mammal observation industry operating in NSW is made up of approximately 100 commercial operators who run tours out of 14 regions on the NSW coast to watch whales, dolphins and seals. Only a small number of these operators derive a significant proportion of their income from mammal watching tours, as the majority are charter fishing boat operators who conduct tours as an adjunct to their charter fishing operations.

Implementation of the Ramsar Convention in NSW

The NPWS implements the Ramsar Convention on Wetlands of International Importance in NSW, both on NPWS-managed lands and on an array of private and state lands. During 2002-03, the NPWS successfully negotiated the nomination of two new wetlands to the convention, and extended a third site, bringing the total Ramsar sites in the state to 11.

Work is continuing to update the NSW Ramsar nominations strategy and work with the community and state and national governments to continue to identify new sites for nomination, and to support management planning to retain the ecological condition of sites which are already listed. NSW is leading Australia in the recognition of Ramsar wetlands on private land.

Major whale-watching centres include Cape Byron State Conservation Area. Humpback whale.