

NSW FOREST AGREEMENTS AND INTEGRATED FORESTRY
OPERATIONS APPROVALS

NSW Forest Agreements

Implementation Report

Upper North East

Lower North East

Eden

Southern regions

2002/2003



NEW SOUTH WALES GOVERNMENT

Minister for Climate Change, Environment and Water

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Implementation Report

**A report prepared as part of the implementation of the
NSW forest agreements and integrated forestry
operations approvals**

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INFORMATION



This project has been coordinated by Resource and Conservation Unit within the Department of Environment and Climate Change [formerly Forestry and Rural Industry Policy within the NSW Department of Natural Resources or Resource and Conservation Division within the Department of Planning].

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Foreword

The Hon Peter Primrose MLC
President of the Legislative Council
Parliament House
Macquarie Street
Sydney NSW 2000

The Hon Richard Torbay MP
Speaker of the Legislative Assembly
Parliament House
Macquarie Street
Sydney NSW 2000

Dear Mr Primrose and Mr Torbay

I have pleasure in presenting to Parliament the fourth annual implementation report on the NSW forest agreements and integrated forestry operations approvals. The report has been prepared in accordance with section 21(1) and 21(2) of the *Forestry and National Park Estate Act 1998*, and tracks progress in the regions for the period 1 July 2002 to 30 June 2003 on:

- the achievement of milestones defined in the NSW forest agreements for the Upper North East, Lower North East, Eden and Southern regions;
- monitoring the ecologically sustainable forest management criteria and indicators by Forests NSW and the National Parks and Wildlife Service, now part of the Department of Environment and Climate Change; and
- compliance with the integrated forestry operations approvals for the Upper North East, Lower North East, Eden and Southern regions.

The report demonstrates continuing improvements to the management of the New South Wales public forest estate and consequent progression towards ecologically sustainable forest management.



Carmel Tebbutt MP
Deputy Premier
Minister for Climate Change and the Environment

Executive summary

This is the fourth report on the implementation of the NSW forest agreements and integrated forestry operations approvals prepared under section 21 of the *Forestry and National Park Estate Act 1998*.

Ecologically sustainable forest management (ESFM) is a key objective of the NSW Government's forest policy. The NSW forest agreements and integrated forestry operations approvals (IFOAs) provide a strategic and operational framework for the achievement of this objective. Progress towards meeting this objective is partially achieved by regular reporting on the:

- achievement of a range of undertakings, or 'milestones', defined in each of the NSW forest agreements;
- results of monitoring of the ESFM criteria and indicators;
- compliance of harvesting activities on State forests and other Crown timber lands with the IFOAs.

The NSW forest agreements and IFOAs were first implemented for the Upper North East (UNE), Lower North East (LNE) and Eden regions in 1999, so have been in place for four years. An agreement and approval were implemented in the Southern Region in May 2002 as a result of the NSW Government's Comprehensive Regional Assessment/Regional Forest Assessment (CRA/RFA) for the region.

The implementation of the agreements and approvals is a cooperative undertaking between the National Parks and Wildlife Service (NPWS)¹, State Forests of New South Wales (SFNSW), the Environment Protection Authority (EPA), Fisheries NSW, and the Department of Planning (PlanningNSW).

This report details activities related to the implementation of the NSW forest agreements and IFOAs for the UNE, LNE, Eden and Southern regions during 2002/2003. These demonstrate that in 2002/2003 there were significant improvements in the management of New South Wales public forests.

Achievement of milestones

A measure of progress of the NSW forest agreements is the achievement of milestones set out in each agreement. Of the milestones due by 30 June 2003 or required to be completed annually, 59% had been completed for the four regions. This is a slight decrease compared to 2001/2002 due to the recent inclusion of the Southern region in the measurements. However the implementation of the agreement for the Southern region has greatly benefited from earlier progress made in the UNE, LNE and Eden regions over the preceding three years, with over 40% of milestones already achieved.

¹ References to agencies are as they were known at 30 June 2003.

Additions to the reserve system

During 2002/2003 the agencies completed the NSW Government's further assessment of lands for potential inclusion into the reserve system in response to commitments made in the *Action for the Environment: NSW Government Environment Statement 2001 (Action for the Environment 2001)*. The FMZ Assessment or Northern Additions, as it became known, was undertaken on areas in the UNE and LNE regions, and implemented various commitments specified in the NSW forest agreements. These commitments were to consider areas of State forest not required for timber production as possible additions to the reserve system in the north east regions.

The *National Park Estate (Reservations) Act 2002* commenced on 1 January 2003 putting into effect the outcomes of the FMZ Assessment, as well as the transfer of some other lands. It provided for land transfers to the NPWS estate, Aboriginal ownership, revocation of flora reserves and the declaration of special management zones. It included about 142 000 hectares of new, or additions to, national parks, nature reserves or state conservation areas (SCAs). This land was transferred from State forest (including FMZ 1, 2 and 3a – unproductive State forest) along with land identified in the process referred to as FURCONS (lands for further consideration) and other lands (including Crown reserves and freehold/Crown leasehold land voluntarily purchased by the NPWS).

Timber volumes harvested

Total quota timber volumes harvested from State forests in the UNE, LNE and Eden regions fell between 2001/2002 and 2002/2003 by nearly 10%. Actual volumes of Veneer and High Quality Large sawlogs harvested from State forests in the UNE region were 81 860m³, 168 764m³ from the LNE region and 24 068m³ harvested from State forests in the Eden region.

Timber harvesting in State forests in the Southern region was undertaken under the terms and conditions of the NSW forest agreement and IFOA for the first time in 2002/2003. Quota sawlogs harvested from SFNSW native forest in the Southern region was 62 329m³, which is within volumes permissible under the NSW forest agreement and IFOA.

Actual volumes harvested by SFNSW have not exceeded those designated in the NSW forest agreements for each region since implementation.

Compliance with the integrated forestry operations approvals

The IFOAs provide an operational framework for carrying out forestry activities in State forests and other Crown timber lands, requiring that SFNSW comply with the terms and conditions of the approvals when undertaking forestry activities in native forests. To ensure SFNSW' compliance regular audits are undertaken by the NPWS, EPA, NSW Fisheries and PlanningNSW and public complaints are investigated as they arise.

The NPWS and the EPA have each implemented comprehensive auditing programs to assess compliance with the Threatened Species Licence and Environment Protection Licence respectively. In 2002/2003 the NPWS conducted eight audits of compliance with the Threatened Species Licences for the UNE, LNE, Eden and Southern regions which found two incidents of non-compliance; one incident was still under investigation at the end of the reporting period.

The EPA carried out a further 19 audits of SFNSW' pre-operational planning and operations in the four regions, identifying 302 breaches of conditions of the Environment Protection Licence. Although the number of audits undertaken during 2002/2003 was slightly less than in 2001/2002, there were 129 more breaches, attributable to the fact that the Southern region had not been previously audited. In all, the EPA issued one penalty notice, two clean-up notices, 16 warning letters and required remedial work at 18 sites. At the end of the reporting period, enforcement action arising from four audits was still being determined. Audits of SFNSW' complaint, compliance and operations registers in two SFNSW Regions identified 382 breaches leading to one penalty notice and two warning letters.

NSW Fisheries and Planning NSW have yet to adopt comprehensive auditing programs, but undertake opportunistic audits and investigate public complaints as they arise. NSW Fisheries also advise SFNSW of any fish species affected by forestry operations in the regions. In 2002/2003 NSW Fisheries advised SFNSW of two affected species and provided detailed distribution data for one of these: the eastern cod (*Maccullochella ikei*) in the UNE and LNE regions.

Amendments to the integrated forestry operations approvals

Amendments to the IFOAs for the UNE and LNE regions commenced on 3 May 2003. The amendments corrected what has been termed the 'buffer-on-buffer' effect which restricted SFNSW' timber supply as trees situated near the boundary of a protected area, or buffer zone, were not permitted to be removed if the tree, when felled, fell into the protected area. Studies undertaken to investigate the impact of the existing provisions on timber supply concluded a possible 12%-18% reduction in timber availability.

The amendments were made to all four parts of the approvals for the north east regions, enabling SFNSW to access timber near the boundaries of protected areas or buffer zones.

The amendments also included some minor changes to the IFOA for the Eden region.

Wilderness declarations

As part of the CRA/RFAs for the UNE, LNE and Southern regions, assessments of lands for wilderness values were conducted. At the end of 2001/2002 results of the assessments had been documented and publicly exhibited and recommendations for wilderness declaration were under consideration by the Minister for the Environment.

In February 2003, 151 000 hectares of wilderness in the north east regions and 122 000 hectares in the Southern region were declared in March 2003.

Education and awareness

Better public awareness and understanding is a measure of progress towards ESFM and the rationale for the NPWS' and SFNSW' public education programs. In 2002/2003, over 86 000 people participated in over 2 400 activities conducted as part of the NPWS' *Discovery* program. SFNSW spent over \$3.5 million on education and community programs, principally held at Cumberland State Forest in Sydney, with an average 9 500 participants a year over the past four years.

Conclusion

The implementation of the NSW forest agreements and IFOAs requires New South Wales land management agencies to work together. The first four years of implementation have seen substantial achievements between agencies: having established joint agreements and open up communication on the agreements and approvals. There is now a solid basis for long-term collaboration, transparency of processes and inclusion of the public.

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Acronyms and abbreviations

Action for the Environment 2001	NSW Government Environment Statement: Action for the Environment 2001
ATSIC	Aboriginal and Torres Strait Islander Commission
AHIMS	Aboriginal Heritage Information Management System
AGS	Australian Group Selection
CANRI	Community Access to Natural Resources Information
CAR reserve system	Comprehensive, Adequate and Representative reserve system
CHAPS	Cultural Heritage Awareness Program
CRA/RFA	Comprehensive Regional Assessment/Regional Forest Assessment
CERRA	Central Eastern Rainforest Reserves, Australia
Cwlth	Commonwealth of Australia
CRAFTI	Comprehensive Regional Aerial Photographic Interpretation
DLWC	Department of Land and Water Conservation
DMR	Department of Mineral Resources
EMS	Environmental Management System
EPA	Environment Protection Authority
ESFM	ecologically sustainable forest management
FISAP	Forestry Industry Structural Adjustment Package
FMZ	Forest Management Zone
FRAMES	Forest Resource and Management Evaluation System
GIS	geographic information system
HHIMS	Historic Heritage Information Management System
IFOA	integrated forestry operations approval

ILUA	Indigenous Land Use Agreement
ISO	International Standards Organisation
IUCN	World Conservation Union (formerly the International Union for the Conservation of Nature and Natural Resources)
JANIS	Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-committee
LNE region	Lower North East region
MIG	Montreal Implementation Group
MOU	memorandum of understanding
NFEMS	Native Forests Environmental Management System
NPWS	National Parks and Wildlife Service
PlanningNSW	Department of Planning
RACAC	Resource and Conservation Assessment Council
RACD	Resource and Conservation Division
RFA	Regional Forest Agreement
SCA	State Conservation Area
SEEDS	Social, Environmental and Economic Data System
<i>SEEng</i>	Social, Economic and Environmental Report (SFNSW)
SFNSW	State Forests of New South Wales
STS	Single Tree Selection
TEPCO	Tokyo Electric Power Company
TSAC	Technical and Scientific Advisory Committee
UNE region	Upper North East region
VCA	Voluntary Conservation Agreement
WRA	Western Regional Assessment

Glossary

biodiversity – the variety of life forms, the different plants, animals and microscopic organisms, the genes they contain and the ecosystems they form.

CAR reserve system – the establishment of a CAR reserve system is one of a number of arrangements put in place as a result of the joint State/Commonwealth *National Forest Policy Statement* (Commonwealth, 1992). The national reserve system, or CAR reserve system, aims to ensure the protection of a range of forest values. The acronym ‘CAR’ defines the goals of the reserve system: *Comprehensive* – full range of forest communities recognised by an agreed national scientific classification at appropriate hierarchical levels; *Adequate* – the maintenance of ecological viability and integrity of populations, species and communities; *Representative* – those sample areas of the forest that are selected for inclusion in reserves should reasonably reflect the biotic diversity of the communities.

carbon sequestration - Carbon sequestration in terrestrial ecosystems can be defined as the net removal of carbon dioxide from the atmosphere into long-lived pools of carbon, such that the carbon dioxide originally in the atmosphere effectively can no longer physically or chemically act as atmospheric carbon dioxide. The pools can be living, above ground biomass (e.g. trees); products with a long, useful life created from biomass (e.g. lumber); living biomass in soils (e.g. roots and micro organisms); or deeper subsurface environments such as depleted oil and gas reservoirs, unmineable coal seams, deep saline formations or deep ocean (Oak Ridge National Laboratory website – <http://www.ornl.gov/>).

Comprehensive Regional Assessment (CRA)/Regional Forest Assessment (RFA) - Assessments undertaken by the NSW Government and Australian Government agencies and community stakeholders which looked closely at the impacts of changes to forest use and management on the environment, economy and community. Included an assessment of natural, cultural, social and economic values.

Dedicated reserve – Reserve equivalent to IUCN Protected Area Management Categories I, II, III, IV as defined by the IUCN Commission for National Parks and Protected Areas (1994). Dedicated reserves include, but are not limited to, parks under the *National Parks and Wildlife Act 1974* and flora reserves under the *Forestry Act 1916*. Status of reserves requires action by Parliament in accordance with legislation for reservation or revocation.

ecological community – An assemblage of species occupying a particular area.

ecologically sustainable forest management (ESFM) – The management of forests so they are sustained in perpetuity for the benefit of society, by ensuring that the values of forests are not lost or degraded for current and future generations.

ecosystem – Communities of organisms and their physical environment interacting as a unit.

ecosystem health – The state of an ecosystem's processes (energy, nutrient, hydrological and biological processes) which maintains the vitality of the system.

ecosystem vitality – The ability of an ecosystem to perpetuate itself.

filter strip – a strip of vegetation or groundcover along each side of a watercourse/drainage line retained for the purposes of retarding/reducing lateral flow of run off and sediment movement into the watercourse/drainage line and reduce the risk of channel and stream bank erosion.

forest – A vegetation type dominated by woody vegetation having a mature or potential mature stand height exceeding five metres, with an overstorey canopy cover greater than 20%.

Forest Management Zone (FMZ) – A land classification system which sets out management intent across State forests and differentiates between those areas of State forest set aside for conservation and those areas available for timber harvesting and other activities.

Forest Resource and Management Evaluation System (FRAMES) – SFNSW' statewide forest resource inventory, growth modelling, simulation and harvest scheduling system for New South Wales public native forest resource.

forest type – A class in the hierarchy of vegetation classification of forests characterised by the taxonomic and or structural composition of canopy trees (usually by a dominant species).

habitat – The living space of a species or community, providing a particular set of environmental conditions.

Informal reserve – A reserve that contains and is managed for conservation values which contribute to the CAR reserve system and meets the principles for Informal reserves as described in the JANIS report.

JANIS report – The report by the Joint Australian and New Zealand Environment and Conservation Council (ANZECC)/Ministerial Council on Forestry, Fisheries and Aquaculture (MCFFA) National Forests Policy Statement Implementation Sub-committee, titled *Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia* (Commonwealth, 1997).

native forest – Any locally indigenous forest community containing the full complement of native species and habitats normally associated with that community, or having the potential to develop those characteristics.

old growth – Forest that is ecologically mature and has little disturbance by activities such as logging, building roads or clearing. The definition focuses on forest in which the upper layer or overstorey is in the late mature to over mature growth phases.

plantation – Intensively managed stands of trees of either native or exotic species, created by the regular placement of seedlings or seed.

public forest – Any forest on Crown land for which management responsibility has been delegated to government agencies, local governments or other instrumentalities.

species – A group of organisms which are biologically capable of breeding and producing fertile offspring with each other but not with other organisms in other groups.

State forest – Land dedicated under the *Forestry Act 1916*.

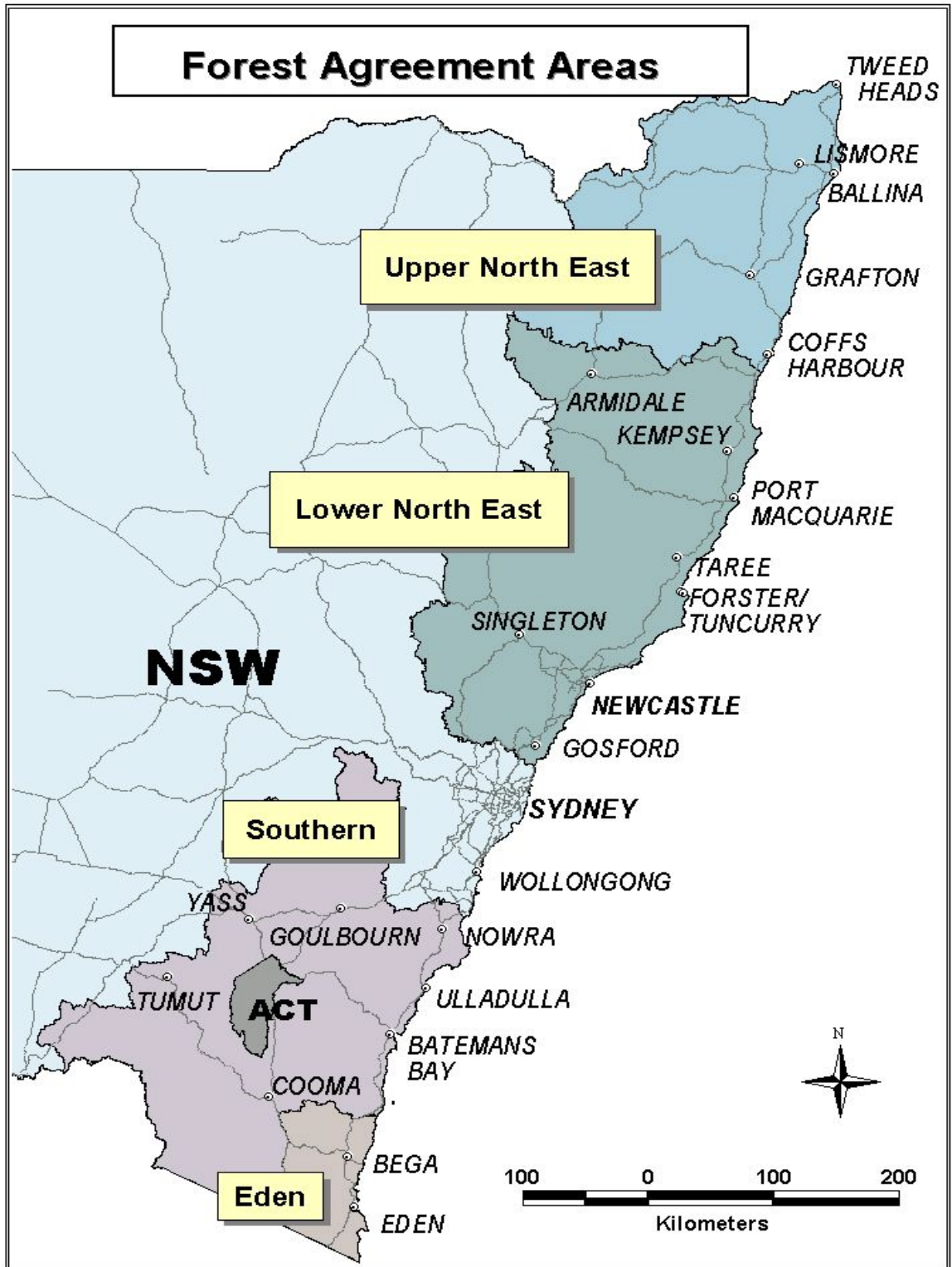
sustainable yield – The long term estimated wood yield from forests that can be maintained from a given region in perpetuity under a given management strategy and suite of sustainable use objectives.

tenure – Title to land as controlled by legislation.

threatened species – Any species of plant or animal listed under Schedule 1 Part 1 (endangered species), Schedule 1 Part 4 (presumed extinct) and Schedule 2 (vulnerable species) of the *Threatened Species Conservation Act 1995*.

threatening process – A process that threatens, or may have the capability to threaten, the survival or evolutionary development of species, populations or ecological communities.

Map 1-A: NSW forest agreement regions



i Introduction

This is the fourth annual implementation report on the NSW forest agreements and integrated forestry operations approvals (IFOA) prepared under section 21(1) of the *Forestry and National Park Estate Act 1998*. It tracks progress on the implementation of the NSW forest agreements and compliance with the IFOAs for the period 1 July 2002 to 30 June 2003, particularly through progress on:

- the achievement of milestones identified in each forest agreement;
- the monitoring of the ecologically sustainable forest management (ESFM) criteria and indicators;
- compliance with the IFOAs.

The NSW forest agreements for the Upper North East (UNE), Lower North East (LNE) and Eden regions were implemented in 1999, providing a strategic framework for the management of public forests. The IFOAs for the UNE, LNE and Eden regions commenced in January 2000 and give an operational framework for forestry operations in State forests and other Crown timber lands.

A fourth forest agreement and IFOA were implemented in the Southern region of New South Wales in May 2002. This is the first report providing details on the implementation of the agreement and approval for the region.

The implementation of the agreements and approvals is a cooperative undertaking between the National Parks and Wildlife Service (NPWS)², State Forests of New South Wales (SFNSW), the Environment Protection Authority (EPA), NSW Fisheries and the Resource and Conservation Division (RACD) of the Department of Planning (PlanningNSW).

² References to NSW Government agencies are as they were known at 30 June 2003.

1 Significant achievements

Management of the public forest estate continued to improve in 2002/2003. While much of this work is a direct requirement of the NSW forest agreements, other complementary actions are part of broader government initiatives. The following chapter details significant contributions NSW Government agencies made this year to the ecologically sustainable management of New South Wales forests.

FMZ assessment/Northern additions

In June 2001, the NSW Government released the *Environment Statement: Action for the Environment 2001 (Action for the Environment Statement 2001)*. The Statement summarised some of the NSW Government's key achievements in and plans for the State's most important environmental issues. It committed the NSW Government to:

complete its assessment of public lands in consultation with stakeholders, and decide which areas should added to the formal reserve system....These areas include those set aside for further consideration in 1998, Crown land, rainforest and other high conservation value old growth forests, which would qualify for addition to the reserve system due to their size (greater than 500 hectares) and location (adjacent to existing reserves).

This included a number of commitments identified in the forest agreements for the UNE and LNE regions where by opportunities to improve conservation outcomes in the regions by could be made by assessing areas set aside for further consideration at the end of the comprehensive regional assessment/regional forest assessments (CRA/RFAs) in 1998 and other areas of State forest managed for conservation.

The assessment became known as the 'FMZ Assessment' or 'Northern Additions' and commenced at the end of 2001. It was coordinated by RACD of PlanningNSW, with SFNSW, the NPWS and the Department of Mineral Resources (DMR). A proposal on the transfer of land was presented to the Resource and Conservation Assessment Council (RACAC) in June 2002. RACAC's feedback was considered by RACD of PlanningNSW, the NPWS and SFNSW who also consulted DMR. The outcome was the declaration of about 142 000 hectares of new national parks, nature reserves or state conservation areas (SCAs) or as additions to existing ones. This land was transferred from State forest (including areas of unproductive State forest classified as Forest Management Zone (FMZ) 1, 2 and 3a, lands identified in the process called FURCONS³) and other lands such as Crown reserves and freehold/Crown leasehold land voluntarily purchased by the NPWS.

³ FURCONS – lands for further consideration. Described in Attachment 2 of the NSW forest agreements for the UNE and LNE regions.

Some areas identified during the Assessment were subject to perpetual leases and these must be voluntarily acquired before transfer to the reserve system. NSW Treasury approved funding of \$6 million over four years for the purchase of these leases on a voluntary basis. Other areas with mineral interests will be considered for transfer at a later stage.

The Premier also asked for the consideration of certain 'icon' areas of high conservation value in State forests without impacting on timber supply. These special areas were investigated during 2002/2003 and included about 45 500 hectares of State forest land being transferred to the NPWS estate or vested in the Minister responsible for the National Parks and Wildlife (covered by Crown leases, land required by the Roads and Traffic Authority, quarries and other uses) and about 18 000 hectares declared as special management zones. The final outcomes resulting from consideration of these lands were contained in the National Park Estate (Reservations) Bill (not assented to at 30 June 2003). A discussion on the outcome of these land transfers will be provided in the next report.

National Park Estate (Reservations) Act 2002

The *National Park Estate (Reservations) Act 2002* was assented to on 18 December 2002 and commenced on 1 January 2003, putting into effect outcomes of the FMZ Assessment (discussed above). It also facilitated the transfer of other lands in the Eden and Southern regions as well as lands purchased by the NPWS. The Act facilitated the transfer of lands to the NPWS estate and/or to Aboriginal ownership, the revocation of flora reserves and the declaration of special management zones. Land transfers facilitated by the Act included:

- the creation of four new national parks from State forest in the UNE and LNE regions over a combined area of about 5 750 hectares;
- the creation of two new nature reserves from State forests in the UNE and LNE regions, over a combined area of about 300 hectares;
- the creation of 27 new SCAs created from either State forest in the UNE and LNE regions, Crown land in the LNE region and freehold land in the UNE, LNE and Southern regions, over a combined area of about 26 400 hectares;
- 37 additions to existing national parks (63 550 ha) and nine additions to nature reserves (3 540 ha) being created from either State forest, Crown land and freehold land in the UNE and LNE regions;
- declaration of special management zones (under section 21A of the *Forestry Act 1916*) of areas zoned for conservation purposes, including FMZ 2 (129 000 ha) and FMZ 3a (160 000ha) in the UNE and LNE regions;
- declaration of 11 Crown reserves as SCAs in the UNE and LNE regions, over a total area of about 22 000 hectares;
- transfer of four areas of State forest (one hectare each) to ownership of the Minister for the Environment to facilitate fire and telecommunications towers;
- revocation of 16 flora reserve remnants in the UNE and LNE regions, being residual land resulting from the transfer of areas of State forest to the reserve system, over a combined area of 56 hectares.

A few smaller land tenure changes in the Eden and Southern regions were also facilitated by the Act. These included:

- about 24 hectares of State forest in the Eden region transferred to the ownership of the Eden Local Aboriginal Land Council;
- 10 Crown reserves converted to SCAs in the UNE, LNE and Southern regions, over a combined area of 22 870 hectares;
- revocation of two flora reserve remnants in the Eden region, being residual land resulting from the transfer of an area of State forest to the reserve system, over a combined area of eight hectares.

A summary of lands transferred under the *National Park Estate (Reservations) Act 2002*, by region and land description, is provided in **Appendix 1.1**.

The *National Park Estate (Reservations) Act 2002* also provided for miscellaneous amendments to the *Forestry Act 1916* and the *Native Title Act 1994* (NSW). This most important amendment to the *Forestry Act* provided that an Act of Parliament is required to revoke (either wholly or in part) a special management zone declared under section 21A of the *Forestry Act*.

It should be noted that all land transfers must be declared by notice in the *NSW Government Gazette*, whereby the description of the transferred land to the NPWS estate may be adjusted. This must occur by 31 December 2003. Where transfers relate to fire/telecommunication towers, or the boundary of land adjoins a public road, an adjustment may occur by 31 December 2007.

Wilderness

Significant areas of wilderness were declared in northern and southern New South Wales on 19 February 2003 and subsequently gazetted on 21 March 2003. This followed the assessment of lands for wilderness values as part of the NE and Southern CRA/RFAs⁴. The process involved one of the most comprehensive consultation programs undertaken by the NPWS during the public exhibition period. Its success was reflected in the record number of submissions from the public (over 42 000 submissions for the north east regions and 27 500 submissions for the Southern region) and the positive feedback from a diverse range of community groups and individuals.

In northern New South Wales, 151 000 hectares of wilderness were declared, creating seven new wilderness areas: Levers, Bundjalung, Banyabba, Cathedral Rock, Carrai, Mount Seaview and Limeburners Creek. The declarations also included additions to the Washpool, Bindery-Mann, Guy Falkes, New England, Macleay Gorges, Kunderang, Willi Willi and Barrington wilderness areas.

In southern New South Wales, 122 000 hectares of wilderness were declared, creating seven new wilderness areas: West Ettrema, Buckenbowra, Woila Duea, Tuross, Bramina, Indi and Western Fall. The declarations also included additions to the Ettrema, Bogong Peaks, Goobarragandra, Bimberi, Jagungal, Pilot and Byadbo wilderness areas.

⁴ Refer to 'References and Bibliography'.

Joint management with Aboriginal communities

The NPWS recognises Aboriginal people as the original custodians of the lands, waters, animals and plants of New South Wales, and its many and varied landscapes. Future heritage and conservation initiatives will invite greater involvement of Aboriginal communities in the management of all areas in the NPWS reserve system.

In May 2003, 30 Aboriginal community representatives and 36 NPWS staff involved in co-management of national parks met in Sydney for two days. It was an opportunity for people with shared challenges to meet, discuss common issues and develop networks. A record of the proceedings and a formal NPWS response to issues raised at workshops was later distributed. Participants represented the Arakwal National Park Management Committee, Mount Warning National Park Advisory Committee, South Beach Negotiating Panel, Biamanga and Gulaga National Parks Negotiating Panel, Bundjalung people, Worimi Traditional Elders Group, Shoalhaven Elders Group and the Githabul people.

Forestry Notification Tracking System

The EPA has worked closely with SFNSW in developing the Forestry Notification and Tracking System to streamline the licence administration process and improve data integrity. Amendments to the Environment Protection Licence have been drafted to accommodate the streamlined administration process. These will be formalised in a future amendment.

Recovery planning

In 2002/2003, 12 recovery plans were prepared by the NPWS and approved by the Minister for the Environment, bringing the total to 52 plans covering 67 threatened species, populations and ecological communities statewide. A further 24 draft plans were placed on exhibition, 22 completed plans were awaiting exhibition and 150 plans were at various stages of preparation.

Recovery plans approved by the Minister for the Environment during 2002/2003 include those for fauna species; black-eared miner (*Manorina melanotis*), Coxens fig parrot (*Cyclopsitta diophthalma coxeni*) and yellow-bellied glider (*Petaurus australis*); and flora species *Eriocaulon carsonii*, downey wattle (*Acacia pubescens*), Illawarra greenhood orchid (*Pterostylis gibbosa*), *Elaeocarpus* sp. Rocky Creek, *Zieria lasiocaulis*, giant fern (*Angiopteris evecta*) and granite boronia (*Boronia granitica*).

Final and draft recovery plans may be viewed on the NPWS website:

<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Recovery+plans>.

Overall, about 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 re-published *Saving our Threatened Native Animals and Plants: Recovery and Threat Abatement in Action* (NPWS, 2003)

http://www.nationalparks.nsw.gov.au/PDFs/Recovery_in_Action_2003.pdf.

Conservation Partners program

The NPWS' Conservation Partners program supports voluntary partnerships between the NPWS and private landholders to look after native vegetation and provide habitat for wildlife. The program offers landholders three main options to protect the natural environments on their properties; Voluntary Conservation Agreements (VCAs), Wildlife Refuges and the Land for Wildlife Scheme. The Land for Wildlife Scheme is facilitated by the NPWS but implemented by community groups or local government.

The program helps participating landholders choose the most suitable program, then plan, manage and carry out their conservation projects. NPWS also publishes the bi-annual *Bush Matters* newsletter, provides helpful management notes and establishes volunteer networks.

VCAs, the central tool of the Conservation Partners program, are agreements between landholders and the Minister for the Environment that outline how the land will be managed and its natural and cultural values protected. Each agreement is registered on the land's title to ensure it is binding for successive owners. Typically the lands covered by VCAs have at least one of the following features; habitat for species listed as nationally endangered or as threatened within New South Wales, declared wilderness, high quality remnant vegetation, or sites of Aboriginal significance. At the end of 2002/2003 over 9 500 hectares of private land were protected by VCAs across New South Wales. Significantly, more than 6 650 hectares were situated in the forest agreement regions.

Cultural heritage management

The NPWS commenced use of a new Historic Heritage Information Management System (HHIMS) in August 2002. This system replaced the NPWS' Historic Places Register and contains more, and better linked information on NPWS heritage assets. It allows field staff and consultants to add or amend information on heritage items they manage and also incorporates necessary technology such as geographic information systems (GIS) into the database.

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. Strategies have been completed for all 19 NPWS Regions. The strategies identify long term conservation and management outcomes for many Aboriginal and historic places and landscapes, prioritise places and landscapes according to significance and risk and highlight places that require further consultation with Aboriginal and broader communities.

The Anaiwan Aboriginal Elders approached SFNSW about accessing State forest (areas) within their Nation (region) to pass on cultural knowledge, establishing dialogue and understanding of SFNSW aims and practices. A series of meetings during 2002/2003 produced plans for a MOU between SFNSW and the Anaiwan Aboriginal traditional owners. It is expected the MOU will be finalised in 2004.

Carbon sequestration opportunities

SFNSW has continued creating partnerships to grow plantations for carbon sinks. The Tokyo Electric Power Company (TEPCO) is already a carbon sequestration partner; during the year this partnership planted another 1 465 hectares of plantation to add to its existing 2 000 hectares.

In September 2003 the Premier and ST Microelectronics struck a \$172 million carbon agreement intended to offset ST Microelectronics' greenhouse gas emissions through planting 12 million trees. The plantings will cover about 12 000 hectares around Taree, Port Macquarie, Casino and Grafton and create about 250 regional jobs in the forest industry (Flint, 2003).

Industry and employment opportunities in Tumut

Tumut's Visy pulp and paper mill, opened in 2001, will receive a \$60 million upgrade, potentially creating a further \$300 million in investment and 550 jobs in the region.

The mill upgrade will increase paper production by 100 000 tonnes per annum by 2005. A proposed feasibility study between Visy and SFNSW will investigate the viability of increasing production to 560 000 tonnes per annum by 2007, a doubling of present production.

The expansion will also lead to salinity plantings around Tumut, which may have a positive effect on salinity in the Murrumbidgee River (SFNSW, 2003a).

Providing benefits to the community

The number of SFNSW' initiatives, activities and contributions to the community has increased in the past year. Activities attracting corporate sponsorships and donations included local sporting rallies and events, tree planting rehabilitation, landcare activities, prizes for competitions held by schools and other organisations. SFNSW provided \$279 000 in corporate sponsorships and other community services.

A number of SFNSW Regions chose to waive fees to assist local development projects, and gave road gravel to local councils, fencing timber to neighbours and chainsaw and four-wheel drive training for the NSW Rural Fire Service and State Emergency Service. Ninety community-based programs were undertaken by SFNSW Regions and over 790 volunteers participated in programs at Cumberland State Forest, Sydney.

Safety first

SFNSW aims to achieve the best safety and rehabilitation record in the Australian forestry industry. Continuous improvement will be measured through a reduction of the accident frequency rate, the lost time severity rate and days lost due to workplace accidents.

SFNSW has been able to increase the number of occupational health and safety meetings, voluntary safety initiatives and staff and contractors with first aid training, consequently decreasing the amount of lost time due to accidents.

SFNSW Regions undertook a large number of initiatives to improve the health, safety and fitness of staff. One key initiative was the Driving Smarter program being implemented across SFNSW to increase driver awareness and, in particular, defensive driving practices.

Another important initiative over the next two years will be the Fire Fighter Health and Fitness program. Because fire fighting is arduous and mentally fatiguing it is vital that employees work at peak fitness. The program will improve their general health and fitness through medical assessments, fitness testing and fitness training.

Western regional assessment

The NSW Government initiated regional assessments across western New South Wales in 1999. The assessment of bioregions in western New South Wales, known as the Western Regional Assessment (WRA), took a landscape and regional planning approach to all values of forest and non-forest areas.

Community participation was a core component of the WRA, and included workshops to identify key regional issues to local communities. Participants represented local government, farmers, conservation, industry and Aboriginal groups, beekeepers and the minerals industry. Some also made valuable technical contributions to projects undertaken as part of the assessment.

The WRA was coordinated by RACD of PlanningNSW on behalf of RACAC. Due to the size of the area to be assessed, the assessment was undertaken by bioregion. The first bioregion to be assessed was the Brigalow Belt South bioregion, which commenced in 1999. The second bioregion was the Nandewar bioregion which commenced in mid 2002.

Land management options for the future management of the Brigalow Belt South bioregion in western New South Wales, resulting from the assessment of the area, were publicly exhibited between 30 September and 25 October 2003 and followed more than two years of data collection and extensive consultation with stakeholders. Information sessions were held across the bioregion, allowing people to speak to NSW government representatives (such as those from the NPWS, SFNSW, PlanningNSW and DMR) and other stakeholders about the options.

Over 1 700 submissions were received. Broadly, respondents were evenly split on the preferred option between the strong conservation option (referred to as the Western Conservation Alliance option) and the moderate industry-conservation option (referred to as the BRUS option).

Public submissions were carefully considered by the NSW Government, announcing it would not rush its decision on the Brigalow area the issues were complex and important to both the region and the State.

Pending the Brigalow decision, an agreement was made in late 2002 that harvesting in the region should avoid areas of concern to conservation groups ('moratorium areas'), unless there were no viable alternatives available. No timber operator was forced to move from a moratorium compartment.

At 30 June 2003 a decision on the outcome of the assessment was still pending.

The Nandewar bioregional assessment continued throughout 2002/2003. Thirteen data and analysis projects were commissioned and progressed. These included conservation, mapping, economic and social, and Aboriginal cultural heritage projects.

2

Implementing the forest agreements

The key objective of the NSW forest agreements is ecologically sustainable forest management (ESFM). To achieve this, each forest agreement contains a number of tasks, or 'milestones' that must be completed and/or implemented over the terms of the agreements. These milestones involve a range of undertakings, such as the development of management plans, monitoring processes and on ground activities.

There are 529 milestones detailed in the forest agreements for the UNE, LNE, Eden and Southern regions. Of these, 133 are directly applicable to the UNE region, 132 to the LNE region, 110 to the Eden region and 154 to the Southern region. Some milestones have a specific due date or must be completed annually, while others are required on an ongoing basis. This latter group generally requires ongoing monitoring systems, or aspects of the agreement that must be reviewed/applied at various intervals.

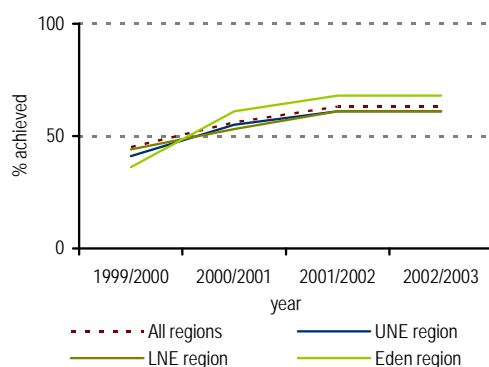
Achievement of milestones

Of the 529 milestones detailed in the NSW forest agreements for the UNE, LNE, Eden and Southern regions, 268 were due by the 30 June 2003 or required to be completed annually. Of these, 59% had been achieved at the end of this reporting period. A further 61% of all milestones required to be completed/undertaken on an ongoing basis had also been achieved.

The percentage of milestones achieved, due by the end of this reporting period or annually, has decreased slightly since 2001/2002 due to the inclusion of milestones required by the Forest Agreement for the Southern Region. Although this has caused the overall percentage achieved to fall, the implementation of the agreement for the Southern region has greatly benefited from earlier progress made in the UNE, LNE and Eden regions. Of the milestones due for the Southern region, over 40% were achieved.

There has been little change in the percentage of milestones achieved by region (UNE, LNE and Eden regions only) to 30 June 2003 (**Figure 2-A**). This is mainly due to activities, such as the FMZ Assessment continuing throughout 2002/2003.

Notably about 14% of milestones due after 30 June 2003 have already been achieved, either to completion or draft, across the UNE, LNE, Eden and Southern regions. About half of the milestones due after 30 June 2003 were already underway.



* Southern region has not been included as 2002/2003 is the first year the agreement has been implemented

Figure 2-A: Achievement of milestones – UNE, LNE and Eden regions

Table 2-A provides a statistical summary of the status of all milestones defined in the UNE, LNE and Eden region forest agreements, at 30 June 2003. **Table 2-B** provides a description of the terms used to describe the status of milestones contained in **Table 2-A** and **Appendix 2.1**.

Table 2-A: status of forest agreement milestones at 30 June 2003 – all regions

Reporting required	Status	Region			
		UNE	LNE	Eden	Southern
To be completed by 30 June 2003 or annually	Completed/ implemented	61%	61%	68%	43%
	Draft	5%	5%	6%	5%
	In progress	30%	30%	20%	43%
	Deferred	4%	4%	6%	2%
	No reporting required	0%	0%	0%	7%
	Total	100%	100%	100%	100%
To be completed after 1 July 2003	Completed/ implemented	58%	58%	59%	69%
	Draft	0%	0%	0%	0%
	In progress	23%	23%	25%	25%
	Deferred	2%	2%	2%	0%
	No reporting required	17%	17%	14%	6%
	Total	100%	100%	100%	100%
Ongoing	Completed/ implemented	10%	11%	17%	6%
	Draft	10%	11%	16%	2%
	In progress	50%	45%	50%	54%
	Deferred	10%	11%	0%	2%
	No reporting required	20%	22%	17%	36%
	Total	100%	100%	100%	100%

Source: RACD, PlanningNSW

Table 2-B: Definitions of milestone status

<i>Completed</i>	Indicates the milestones required the production of a document or plan which has been produced.
<i>Implemented</i>	Indicates that the milestone required a process or system to be put in place and it has been put in place.
<i>Draft</i>	Indicates either a product or process that has been developed to draft stage, but not yet finalised.
<i>In progress</i>	Indicates a product or process is still being developed
<i>Deferred</i>	Indicates that the action required by the milestone has been postponed.
<i>No reporting required</i>	Indicates an action which is to be reported in another way, for example in a five year review or on an 'as needed' basis.

Managing the Forests

Environmental management systems

The development of environmental management systems (EMS) for SFNSW and the NPWS continued throughout 2002/2003.

SFNSW is developing its Native Forest Environmental Management System (NFEMS) with the objective of attaining International Standards Organisation (ISO) 14001⁵ certification. The NFEMS was publicly exhibited with other management documents including the Eco-field guide, Silviculture policy and Regional ESFM plans in 2000 enabling SFNSW to consider comments made by regulators and stakeholders in developing its draft EMS system. In 2002/2003, SFNSW was able to include outcomes of its 2001/2002 EMS audits undertaken in SFNSW Native Forest Regions. These indicated that SFNSW could make a number of improvements including more systematic forest management and better integration of corporate documents.

SFNSW is also developing an EMS for its planted forest estate, again with the objective of obtaining ISO 14001 certification.

Completion and certification of the EMS for both native and planted forests is anticipated by early 2006. Once this has been achieved, the EMS will ensure management plans and processes are consistently applied across all State forests.

Development of the EMS for the NPWS also continued, with some components trialled and implemented. A major component of the system will be the *State of the Parks* report. A trial implementation of indicators to measure management effectiveness of a sample of parks included Border Ranges National Park (UNE region), Barrington Tops National Park (LNE region), Nadgee Nature Reserve (Eden region) and Kosciuszko National Park (Southern region). Plans are underway to expand the program.

⁵ ISO 14001– the international standard for environmental management systems.

Plans of management

Plans of management for the NPWS estate

The NPWS is continuing to prepare plans of management for all dedicated reserves under the *National Parks and Wildlife Act 1974* which define objectives and strategies to manage each reserve. Each plan is publicly exhibited; comments on a plan are considered by the National Parks and Wildlife Advisory Council⁶, before its endorsement by the NSW Minister for the Environment. Once a plan is implemented any activity in the reserve must be in accordance with the plan (NPWS, 2002).

At 30 June 2003 there were 293⁷ national parks/nature reserves/SCAs/historic sites/Aboriginal areas situated in the UNE and LNE regions. Of these, 72 had plans of management adopted by the Minister for the Environment (including seven that were being revised). A further 135 plans were in preparation (including 63 that were in draft, one of which had been publicly exhibited).

For the Eden region, of the 17 national parks/nature reserves/historic sites⁸, nine had plans of management adopted by the Minister for the Environment (including one that was being revised). A further five plans were in preparation. The preparation of the plan of management for Biamanga National Park is not scheduled to commence until leaseback arrangements are finalised.

For the Southern region, of the 117 national parks/nature reserves/SCAs/historic sites/Aboriginal areas, 21 had plans of management adopted by the Minister for the Environment (including one that was being revised). A further 31 were in preparation (including six that were in draft, one of which had been publicly exhibited).

Plans adopted during 2002/2003 for reserve areas within the forest agreement regions included: Myall Lakes National Park, Bald Rock National Park, Torrington SCA (UNE region), Ben Halls Gap National Park (LNE region) and Nadgee Nature Reserve (Eden region).

Plans of management (including draft plans) may be viewed on the NPWS website:

<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Fire+and+park+management+plans+by+title>.

Regional ESFM Plans

At June 2003, SFNSW was continuing to refine its Regional ESFM Plans for the UNE, LNE, Eden and Southern regions following input from regulatory agencies. The plans are expected to be placed on public exhibition in 2005 and will provide a framework for the management of a range of forest values across State forests including; biodiversity, harvest planning, and indigenous and non-indigenous cultural heritage.

⁶ National Parks and Wildlife Advisory Council provides advice to the Minister for the Environment on matters relating to the management of parks and reserves (NPWS website). Membership includes representatives from NSW Farmers, SFNSW, the Australian Museum, CSIRO, the National Parks Association and the Nature Conservation Council.

⁷ The number of areas requiring plans of management to be prepared has increased since 2000/2001 due to additions to the NPWS estate. Total number of areas includes both forest and non-forest areas.

⁸ The number of plans of management identified for the Eden region has previously been incorrectly reported as 19. The correct number of plans is 17 as reported here.

Supplementary model management plans⁹ for fire, weeds, feral animals, roads and grazing, were also finalised throughout the year and will be released with the final Regional ESFM Plans. When this occurs reporting against targets can begin.

A reporting template being developed will identify requirements and provide a consistent reporting framework.

Working plans for flora reserves

Flora reserves in State forests are classified within SFNSW' Forest Management Zoning (FMZ) system as FMZ 1 – 'Special Protection'. The FMZ 1 classification prohibits logging and provides the highest level of protection within the system. Each of these areas requires a working plan or protection plan to define the management of the environmental values in the reserves.

A timetable for the preparation of working plans for flora reserves was included in the draft Regional ESFM Plans for the UNE, LNE and Eden regions in 2000. It included reviews of a number of working plans for flora reserves that already existed at the time of the CRA/RFAs. SFNSW found these plans met the requirements of the *Forestry Act*, section 25A subsection 5. By 2006 SFNSW will have completed plans for flora reserves without existing plans, including flora reserves in the Southern region.

At 30 June 2003, 19 flora reserves were situated in the UNE region, 18 with plans approved by the Minister for Forests.

In the LNE region, there were 17 flora reserves, which include the amalgamation of two existing reserves (Bar and Warrawalong flora reserves). All 17 flora reserves had plans approved by the Minister for Forests at the end of the reporting period. One plan for the new Mount Allyn Flora Reserve and one to replace the combined Bar and Warrawalong Flora Reserve were scheduled to be completed by June 2004.

In the Eden region there were 12 flora reserves, 10 of which had plans approved by the Minister for Forests. The remaining two plans had a target completion date of June 2004.

Of the 17 flora reserves in the Southern region, 13 flora reserves had plans approved by the Minister for Forests at 30 June 2003. Working plans for the remaining four flora reserves are expected to be drafted by December 2005. Final working plans for all flora reserves will be incorporated in SFNSW Regional ESFM Plans, and approved by mid 2006.

All working plans for flora reserves are to be progressively reviewed as required.

Additionally, following the further assessment of lands, principally in the UNE and LNE regions in 2001/2002 (refer to Chapter 1 - FMZ Assessment), 18 remnant of flora reserves in the UNE (5), LNE (11) and Eden (2) regions had the flora reserve status revoked by the *National Park Estate (Reservations) Act 2002* in January 2003.

⁹ Model management plans required under the IFOA for each region.

Working plans for informal reserves

Finalisation of the working plans was delayed by the FMZ Assessment (see Chapter 1) conducted during 2001/2002 and 2002/2003. During the FMZ Assessment the extent and composition of informal reserves and areas to be managed by prescription in the UNE and LNE regions changed because areas of State forest were transferred to the reserve system, and additional areas of forest were classified as high conservation value old growth. For example, land tenure and classification as result of the of the *National Park Estate (Reservations) Act 2002* and previously part of the informal reserve network, were transferred to the reserve system, while large areas of land that were to be managed by prescription (rainforest, high conservation value old growth and rare non-commercial types) were transferred to the informal reserve system. As most areas had been identified by the end of 2002/2003, one regional management plan is to be completed for all informal reserves in the region. The NPWS, EPA PlanningNSW and NSW Fisheries will be consulted before the plan is finalised in 2005/2006.

Special management zones were also created in the UNE and LNE regions with the passage of the *National Park Estate (Reservation) Act 2002*. Working plans for areas remaining as State forests are to be completed pending consultation with other State agencies.

A working plan for the Yurammie SCA in the Eden region will be completed by mid 2007.

For the Southern region, working plans for informal reserves (FMZ 2 and 3a) are being finalised as part of the Regional ESFM Plans. Public exhibition of the plans is expected in 2005.

In the UNE, LNE and Eden regions' guidelines for areas managed by prescription will be included with the Regional ESFM Plans. Similarly guidelines for areas managed by prescription (FMZ 3b and 4) are being finalised as part of the development of the Regional ESFM Plans for Southern region, expected to be publicly exhibited in 2005.

Creation of special management zones

Special management zones declared under section 21A of the *Forestry Act* include areas of State forest protected to preserve its special conservation value. They were inserted into the *Forestry Act* in 1998 by Schedule 8 of the *Forestry and National Park Estate Act*.

In addition section 21A of the *Forestry Act* was amended to require an Act of Parliament to revoke (either wholly or in part) a special management zone (see Chapter 1). The effect of this is that an area declared a special management zone under section 21A of the *Forestry Act* has the same level of protection as any other dedicated reserve, such as a national park or flora reserve.

In the UNE and LNE regions, special management zones were declared by the *National Park Estate (Reservations) Act 2002* (1 January 2003). Although special management zones were proposed for the Eden and Southern regions, no areas were declared during 2002/2003.

Forest Management Zoning

SFNSW' FMZ system¹⁰ provides a means of classifying areas of State forest available for timber harvesting and areas to be managed for conservation purposes. The classification of areas of State forests into FMZ categories provides the basis for all operational planning and activities.

A GIS operational layer was agreed at the time of the signing of the forest agreements for the UNE, LNE and Eden regions in 1999, and illustrated on maps attached to SFNSW draft Regional ESFM Plans (2000). The FMZs have since been progressively implemented across State forests in the regions, including some minor changes to some FMZs. Finalising the FMZ system for the north east regions awaits the completion of a number of aspects, including:

- the FMZ Assessment which included areas illustrated in Map 2 of the forest agreements for the UNE and LNE regions as being 'lands for further consideration', or FURCONS;
- the creation of special management zones facilitated by the *National Park Estate (Reservations) Act 2002* (January 2003).

For the Southern region, a GIS operational layer was also agreed to at the time of signing the forest agreement for the region in 2002 and subsequently applied. A FMZ layer is to be publicly displayed with the final Regional ESFM Plans for the UNE, LNE, Eden and Southern regions in 2005.

CAR reserve system

Additions to the NPWS estate

The NSW Government allocated \$1.5 million per year over five years (2001/2002 to 2005/2006) to the NPWS to voluntarily purchase leasehold and freehold lands as required by the UNE and LNE forest agreements. These acquisitions proceeded during 2002/2003: three leasehold properties (1 347 ha) were purchased in the UNE region and four leasehold properties (5 826 ha) in LNE region.

As properties are purchased they are incorporated into the NPWS estate by gazettal. During 2002/2003, gazettal of eight previously purchased leases (7 262 ha) in the UNE region and 19 previously purchased leases (32 301 ha) in LNE region occurred. No lease areas with grazing rights in the Eden region have been identified for inclusion in the NPWS estate.

No purchases of leases on State forest tenure that has been revoked were made by the NPWS during 2002/2003. To date only one lease has come onto the market but the land sale did not coincide with the land acquisition funding cycle and the NPWS was unable to make the purchase.

FMZ Assessment/Northern Additions

A number of milestones relevant to the UNE and LNE regions were addressed, wholly or in part, by the FMZ Assessment discussed in Chapter 1 of this report. Details on individual milestones addressed in this process are provided in **Appendix 2.1**.

¹⁰ Described in *Managing Our Forests Sustainably: Forest Management Zoning in NSW State Forests* (SFNSW, 1999).

Crown reserves

A memorandum of understanding (MOU) regarding the management of Crown reserves dedicated for the purposes of public recreation, conservation and mineral and petroleum exploration was signed in March 2001 between the Directors-General of the NPWS and DMR. However, in 2002/2003, 21 Crown reserves were reclassified as SCAs. This included all Crown reserves in the UNE (9), LNE (2) and Eden (1) regions, and nine of the 15 Crown reserves in the Southern region (refer Chapter 1 – FMZ Assessment).

SCAs are a new reserve category under the *National Parks and Wildlife Act*, created with the passage of the National Parks and Wildlife Amendment Bill in 2001. Like the Crown reserve land use category (under the *Crown Lands Act 1989*) which was established through the NSW forest agreement process, the SCA category allows the NPWS to manage an area for its natural and cultural heritage values while also permitting mining and mining exploration.

The Directors-General of the NPWS and DMR subsequently entered into a further MOU in November 2002, recording their agreement on and guidelines for assessment or exploration, mining and petroleum production, and the conservation of natural and cultural values in SCAs. Input from stakeholders, including the Nature Conservation Council and the NSW Minerals Council contributed to the MOU which also includes a process for reviewing SCAs and remaining Crown reserves every five years. The intent is that every five years DMR must provide reasons why a SCA cannot be upgraded to a national park or nature reserve.

The reclassification of lands as SCAs has removed the principal anomaly which has prevented plans of management being prepared, that is that legislation under which Crown reserves were established did not allow for the responsibility (and therefore plans of management) to rest with the Minister for the Environment. Now plans of management for SCAs can now be prepared. Progress of these plans will be reported annually in Chapter 2: Plans of management for the NPWS estate.

The process and timing of plans of management for the remaining Crown reserves had not been established at 30 June 2003.

Crown land

The NPWS' review of conservation values on vacant Crown land in the UNE and LNE regions continued throughout 2002/2003 in consultation with the Department of Land and Water Conservation (DLWC), DMR and other stakeholders. Discussions with stakeholders and the voluntary acquisition of leases identified areas to be transferred to the reserve system. At 30 June 2003, 40 000 hectares of high conservation value vacant Crown land had been added to the NPWS estate in north east New South Wales. Another 38 000 hectares had been referred to DLWC to consider the constraints which apply to it, including licences. The gazettal of some of the land is due in December 2003.

Cooperative approaches for threatened species management

Assessment of species

Processes to assess conservation requirements emerging from important new information about the biology and ecology of a species and the effectiveness of licence conditions were implemented for the UNE, LNE and Eden regions in 1999 and for the Southern region in 2002. These processes are provided in the Threatened Species Licences made under the *Threatened Species Conservation Act*.

A process was also in place to review flora and fauna conditions of the Threatened Species Licences which includes the exchange and assessment of new information by the NPWS, SFNSW and, where appropriate, independent experts. Subsequent recommendations are provided to the relevant Ministers for approval.

In 2001/2002 this process was applied when SFNSW undertook a study into the home range and habitat requirements of the brush-tailed phascogale (*Phascogale tapoatafa*) in the SFNSW Mid North Coast Region (situated across part of the UNE and LNE regions). The outcome was the development of a new prescription in the Threatened Species Licences, formalised by amendment 2 to the IFOAs for the UNE, LNE and Eden regions (commenced 3 May 2003). The new prescription:

- introduced the option of a landscape approach to habitat conservation for areas 1 000 hectares or greater;
- reduced the size of the exclusion zone that must be retained within 500 metres of records, for the site-based approach from 50 hectares to 20 hectares;
- changed the categories of habitat to be retained in the site approach, generally, from being based on models to being based on forest type mapping.

There were no further requirements for the process to be implemented during 2002/2003.

The NPWS routinely notifies SFNSW of preliminary and final determinations made by the NSW Scientific Committee for the listing of species in schedules of the *Threatened Species Conservation Act*. The NPWS is not permitted to provide information on non-NPWS proposals for listings or de-listings until the NSW Scientific Committee has made at least a preliminary determination.

During 2002/2003, the NPWS advised SFNSW of a number of new listings on Schedules of the Act including; flora species, *Pomaderris notata* and *Boronia granitica* as vulnerable, *Oberonia complanata* and *Correa lawrenciana* as endangered, and fauna species, *Litoria daviesae* (tree frog) as vulnerable and the stuttering frog (*Mixophyes balbus*) as endangered. Final determinations can be found on the NPWS website: <http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Final+determinations>

Management and recovery planning

Cooperation between SFNSW and the NPWS, as well as other agencies includes the preparation of recovery plans and threat abatement plans, led by the NPWS. SFNSW provides expertise, representation on recovery teams, and consultation during the drafting and public exhibition phases. Examples of cooperation between the two agencies are the development of the *Pine Creek Koala Management Plan* (SFNSW, 1999b) and the *Threat Abatement Plan for Predation by the Red Fox*

(*Vulpes vulpes*) (NPWS, 2001b), as well as recovery plans for Nightcap Oak (*Eidothea hardeniana*), and yellow-bellied glider (*Petaurus australis*) (among others).

A research and review program for the Hastings River mouse (*Pseudomys oralis*) and scientific studies of the species have been underway since the refinement of microhabitat models for the species in 1999. At the end of the reporting period, the draft recovery plan for the Hastings River mouse had been prepared and publicly exhibited; it included refinement of the models and proposed that predictive habitat modelling should be used in conjunction with genetic studies to map and manage boundaries of individual populations.

Details on the preparation of recovery plans are provided in Chapter 1 and Chapter 3 – Criterion 1 (indicator 1.3).

Flora monitoring and pest, weed and feral animal control

Flora monitoring

In accordance with the Threatened Species Licences for the UNE and LNE regions, SFNSW is developing flora monitoring plans in consultation with the NPWS which must also approve the plans. Thirteen flora species are subject to this condition which requires a separate plan for each species. Monitoring plans have been approved for *Amorphospermum whitei*, *Eucalyptus glaucina*, *Pultenaea campbellii* and broad-leaved pepperbush (*Tasmannia purpurascens*). Plans for the remaining species will be developed as needed.

The monitoring of flora species is the responsibility of SFNSW who report results to the NPWS at specified intervals. No results have yet been formally reported.

Flora monitoring plans are not required for the Eden and Southern regions but flora monitoring requirements are specified in conditions of the Threatened Species Licences for the regions. The Threatened Species Licence for the Eden region, for example, requires monitoring be carried out for five grass species; South Coast and Tumut sub-regions of the Southern region must follow site-specific, or species specific, management plans, that may include a monitoring component. There is no intention to expand the development of flora monitoring plans into other regions but species management plans will be used more frequently and some of these may involve monitoring.

Managing weeds, feral animals and grazing

SFNSW' refinement of model management plans¹¹ for weeds, feral animals and grazing also continued throughout 2002/2003. It is expected the plan for weeds will be finalised and submitted to RACD of PlanningNSW for approval in 2004. SFNSW Regions will then develop region-specific plans based on the model management plan.

Cooperative programs have been established by the NPWS with a variety of landholders, land management agencies and interest groups to manage pest animals [e.g. foxes, wild dogs (*Canis familiaris*) and pigs (*Sus scrofa*)] and various noxious and/or environmental weed species [e.g. bitou

¹¹ Model management plans required by the IFOA for each region.

bush (*Chrysanthemoides monilifera*), lantana (*Lantana camara*) and scotch broom (*Cytisus scoparius*)]. At June 2003, the NPWS was engaged in 320 programs across the State.

In the Eden region, cooperative weed and pest management programs have been established directly with SFNSW and the NPWS, and indirectly via the South East Catchment Board with Bega and Bombala Shire Councils, DLWC and private landholders. Local pest management committees comprising of the NPWS, South Coast Rural Lands Protection Board and landholders have also been established to manage particular pest issues. Both NPWS and SFNSW are involved in the development of cooperative wild dog and fox management plans which will cover the entire Eden region.

Pest animal and weed control programs are integrated into NPWS reserve plans of management, recovery plans and threat abatement plans. Regional pest management strategies have been developed by the NPWS that:

- outline objectives and strategies for managing priority pest animals and weeds;
- maximise the effectiveness of pest control programs;
- outline how the NPWS will cooperatively manage pests with other State government land management agencies, local government, rural lands protection boards, landowners and community groups.

Pest management strategies have been prepared for all five NPWS Regions in its Northern Directorate¹² (UNE and LNE regions). A Regional Pest Management Strategy for the Far South Coast Region covering almost the entire Eden Management Area.

In the Southern region, regional pest management strategies have been completed for the NPWS South Coast and South West Slopes Regions, and cooperative wild dog/fox management plans developed between the Rural Lands Protection Board, SFNSW and the NPWS in the NPWS Snowy Mountains Region.

SFNSW continues to participate in local weed management committees and is working in close cooperation with rural lands protection boards and wild dog associations in determining local control priorities and cooperative control programs. Details of these arrangements will be listed in the final Regional ESFM Supplementary Plans – Weed Management Plan and Pest Animal Control Plan.

Private land

Identification of lands of conservation priority

The forest agreements for the UNE and LNE regions require the identification of forest ecosystems on private land for inclusion in the CAR reserve system¹³ necessitating the incorporation of the Comprehensive Regional Aerial Photographic Interpretation (CRAFTI) data into regional databases. Revision of CRAFTI linework for UNE region was completed in August 2000 and for LNE region in December 2000. Refinement of CRAFTI data provides a basis for derivation of forest growth stage, ecosystem modelling and predictive modelling of species habitat across all tenures.

¹² Covers the UNE region and part of the LNE region.

¹³ List contained in Attachment 2 of the North East RFA.

In January 2003, the NPWS received draft updated soils landscape mapping from DLWC to contribute to the process. At the end of the reporting period, deficiencies were being rectified by DLWC; the final maps will provide spatially accurate data for private land and enable government programs, including regional vegetation management plans and the *NSW Biodiversity Strategy* (NPWS, 1999a) to be completed. In the meantime, the NPWS has derived an interim data layer and provided this to regional vegetation committees and catchment management boards.

Priority forest ecosystems for voluntary protection on private land in the Southern region are identified in Attachment 2 of the Southern RFA. Progress in the Southern region will be reported in future.

Private native forestry and plantations

The Interim Best Operating Standards for Harvesting of Private Native Forestry, under the *Native Vegetation Conservation Act 1997* were released in June 2001 replacing the draft Best Management Principles and other standards used by vegetation officers. The standards were prepared to guide forestry operations on private land requiring consent.

In April 2002, a Private Native Forestry Reference Group was established to examine the regulation of forestry on private land and make recommendations for a workable exemption and consent framework. It was accepted by the NSW Government in September 2002. DLWC has since been implementing the recommendations, including the development of a draft Exemption Operations Standard (for forest operations that may be undertaken without consent) and a Forest Operations Standard (to guide operations where consent is required).

The *Plantations and Reafforestation Act 1999 and Plantations and Reafforestation (Code) Regulation 2001* came into effect in December 2001. The *Plantations and Reafforestation Act* superseded the *Timber Plantations (Harvest Guarantee) Act 1995*.

The Act aims to promote plantation establishment and streamline the approval process. The Code provides clearer standards for plantation establishment, including specifying conditions for:

- planning and approval;
- plantation establishment, management and harvesting operations;
- protection of various land values, such as soil and water, cultural heritage and biodiversity;
- management of retained areas;
- standards for the construction and maintenance of log dumps, roads and crossings (DIPNR, 2004a).

Between December 2001 and December 2003, about 160 plantations were authorised, covering about 15 800 hectares across New South Wales (DIPNR, 2004b).

The Act and Code are due for review in 2004.

World heritage and wilderness

Potential additions to the World Heritage Register located in the UNE and LNE regions were deferred by the Central Eastern Rainforest Reserves of Australia (CERRA) Committee in 2000 pending the establishment of an independent advisory committee. The CERRA World Heritage Property Technical and Scientific Advisory Committee (TSAC) has since been formed and has recommended expansion of CERRA by about 10%.

The Minister for the Environment supports this pragmatic approach as long as whole reserves or contiguous areas are considered. The NPWS and the TSAC will develop larger scale criteria and options for consideration by the Australian Government. TSAC also recommended that work commence on necessary cultural heritage assessments but none were undertaken during 2002/2003. Pending finalisation of the processes and criteria required under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* for listing on the National Heritage List, no further studies of the dedicated reserve system in the UNE, LNE and Eden regions are planned at present.

Further information on CERRA is available through the Australian Government Department of Environment and Heritage website: <http://www.deh.gov.au>.

Cultural heritage

Cultural heritage policies endorsed by the NPWS Executive include its Cultural Heritage Strategic Policy, Consultation Policy, Cultural Heritage Information Policy and Guidelines for the Assessment of Impact on Heritage Places are consistent with the principles contained in the CRA/RFA project reports, *Protective Mechanisms for Cultural Heritage—Generic Version* (Cultural Heritage Working Group, 2000a) and *Protective Mechanisms for Cultural Heritage—Lower North East Region* (Cultural Heritage Working Group, 2000b). Ongoing review of NPWS statewide guidelines is also consistent with these principles.

SFNSW' draft policy on indigenous and non-indigenous cultural heritage outlined strategies for the protection and management of cultural heritage on State forests. The policy will be released with the final Regional ESFM Plans in December 2005.

Policies on cultural heritage, protection of indigenous interests and values and protection of non-indigenous cultural heritage are also included in SFNSW' NFEMS. They have been reviewed with regional stakeholders such as local Aboriginal land councils, Elders groups, conservation groups and public comment has been received.

SFNSW and the NPWS report cultural heritage performance through inter-agency and corporate processes. This includes the ongoing provision of data and information by the NPWS and SFNSW against cultural heritage indicators monitored as part of ESFM criteria and indicators process (refer to Chapter 3), underway since 1999/2000.

At the corporate level, the NPWS' cultural heritage performance and achievements are outlined in its annual report each financial year. More detailed performance indicators for cultural heritage are also being developed by the NPWS as part of its *State of the Parks* reporting. These indicators were trialled in 2002/2003. The next *State of the Parks* report will be released in early 2005.

SFNSW reports its corporate level cultural heritage performance annually through its *Social Environmental and Economic (SEEing)* report (previously called the *Environmental and Social Values Report*) using performance indicators that are being incorporated into ESFM planning and reporting.

Places of cultural significance

The NPWS began using a new Historic Heritage Information Management System (HHIMS) in August 2002. The HHIMS replaced the NPWS Historic Places Register and contains more, better linked information on NPWS heritage assets. It allows field staff and consultants to add or amend information on heritage items and incorporates necessary technology such as GIS into the database. The system was updated as necessary during 2002/2003. Chapter 1 has more details.

Places of Aboriginal cultural significance

NPWS' strategies

The NPWS' goal of integrating natural and cultural values into the landscape makes identification and assessment of a landscape's cultural heritage values vital. Strategic information, community consultation and other policies all support better integration of cultural heritage into conservation objectives and operations. Generally, the NPWS takes a landscape approach as recommended in *Visions for the New Millennium* (NPWS, 1998) and the NPWS Corporate Plan.

Aboriginal cultural heritage processes for consents and permits were being reviewed by the NPWS, in part, to ensure a more landscape approach. At 30 June 2003 the review was still in progress and was considering broadening the scope of cultural heritage values and their impact, rather than focusing on the archaeological significance of a site in isolation from the rest of the landscape.

The NPWS has also developed guidelines for the assessment of all parks to determine their inclusion in Schedule 14¹⁴ of the *National Parks and Wildlife Act*. Although no preliminary assessments have been undertaken, the NPWS continues to respond to nominations proposed by Aboriginal communities as they occur.

Although not specifically related to Schedule 14 assessment, systematic surveys for Aboriginal cultural heritage features were undertaken in seven reserves in the Southern region during the year, including Benambra National Park, Cuumbeun Nature Reserve, Ellerslie Livingstone National Park and Wanna and Dananbilla–Illunie protected area network. Numerous artefacts, sites and other structures were recorded all of which have been registered on the NPWS Aboriginal Heritage Information Management System (AHIMS).

A number of Aboriginal heritage conservation assessments were undertaken on the NPWS estate in the Southern region and one conservation management plan prepared. Activities included:

- inspection and conservation assessment of caves in the Blue Water Holes area in Kosciuszko National Park);
- inspection of engravings and conservation assessment in Tabletop Nature Reserve;
- inspection of rock art, conservation assessment and completion of a Conservation Management Plan for Woomargama National Park.

¹⁴ Schedule 14 – *National Parks and Wildlife Act 1974* – Lands of cultural significance to Aboriginals.

Further activities identifying Aboriginal cultural heritage places, artefacts and sites on the NPWS estate in the Southern region during the year included:

- post-fire inspections of containment lines prior to rehabilitation works;
- location of unmarked graves at Brungle;
- draft preliminary Aboriginal heritage surveys in Yaouk Nature Reserve, Scabby Range Nature Reserve and Black Andrew Nature Reserve;
- preliminary archaeological assessment of Tabletop Nature Reserve;
- Aboriginal survey and study of the Yanununbeyan Reserve System;
- Aboriginal site and heritage surveys of Koorawatha Nature Reserve and Dananbilla Nature Reserve;
- Aboriginal sites investigations in the Goulburn sub-region.

SFNSW' strategies

SFNSW' FMZ system protects places with heritage significance in State forests by applying a 'special values' designation. Aboriginal cultural heritage is protected through case-specific prescriptions incorporated into operational plans. SFNSW normally only changes a zoning category where a site or place is extensive and there have been consultations with Aboriginal communities.

The protection of Aboriginal cultural heritage on State forest involves liaison with the Aboriginal community and field identification of known and previously recorded sites. Field investigations are undertaken during planning to identify additional sites or objects. Site locations are not identified publicly. Where sensitive sites are identified restricted access arrangements may be put in place, such as the closure of tracks or access through locked gates. Aboriginal sites are identified during pre-harvest inspections and prescriptions applied to protect sites. Site protection measures are developed following liaison with community representatives and incorporated into SFNSW' operational plans. Where potential cultural sites are identified during operations, activity ceases until the item or place is investigated and a decision made on the appropriate management of the site. Non-Aboriginal heritage protection involves reference to databases, such as the section 170 Heritage and Conservation Register (*Heritage Act 1977*), and field investigation. Site specific prescriptions are identified to ensure protection of the values present and are incorporated into operational plans.

Aboriginal interests

Aboriginal involvement in forest management

Individual strategies by the NPWS and SFNSW to ensure Aboriginal communities and stakeholders have greater participation in forest management have yet to be developed and implemented for all forest agreement regions. However, the NPWS and SFNSW have prepared a draft joint strategy for the Eden region and will seek more Aboriginal community input into the final strategy. While the Biamanga National Park handback program has taken priority the strategy will be finalised by December 2003.

Although strategies have not been developed for the other forest agreement regions, both SFNSW and the NPWS are encouraging more Aboriginal participation. For example, the NPWS has employed a cultural heritage project officer in its North Coast Region to work with staff and the local Aboriginal

communities to foster better partnerships in the management of Aboriginal cultural heritage. A new Aboriginal identified position has also been created to develop consultation strategies for the NPWS with Aboriginal communities in its Northern Directorate. This will ensure the NPWS builds effective relationships with local communities.

SFNSW' policy in relation to Aboriginal involvement in forest management was outlined in its NFEMS - Strategic Framework (publicly exhibited in 2000), in EMS and in Regional ESFM Plan. Consultation with the Aboriginal community has led to modifications to the final policy which now ensures Aboriginal people will be consulted when operations are planned near items of Aboriginal cultural heritage. It also gives economic and cultural opportunities to Aboriginal communities. Contracts have been established with land councils and other representative groups to undertake the stipulated on-site inspections.

An Operational Guidelines for Management of Aboriginal Cultural Heritage on State forests has also been developed. They prescribe consultative arrangements with local Aboriginal communities on forest activities: when communication with the community could be expected, how the site should be identified and protected, and the conduct of the review process.

Co-management and joint venture arrangements

The NPWS and SFNSW have various joint management arrangements with Aboriginal communities, both recent and long term.

NPWS and Aboriginal partnerships

Activities by the NPWS included 15 joint management, and access or hunting and gathering arrangements with Aboriginal communities in the north east regions (UNE and LNE regions). Arrangements included the first Indigenous Land Use Agreement (ILUA) in New South Wales, at Arakwal (entered into in 2001/2002). The management plan for the Arakwal National Park (yet to be developed) will create a model for future co-managed parks. Members of local Aboriginal communities are also represented on the recently established steering committee for Mount Warning National Park (UNE region) to develop a MOU for the management of this important Aboriginal area. Various Aboriginal communities have also been involved in the protection of threatened species.

In the Eden region, the NPWS has agreed to two formal cultural camps with basic infrastructure to be established on-park under joint management arrangements with local Aboriginal communities. A Statement of Joint Intent has also been negotiated by the NPWS with the Eden Local Aboriginal Land Council for informal culture camping and cultural activities in other areas throughout the Eden Management Area. Biamanga National Park handback program continued with the establishment of negotiating committees and advertising for the appointment of a facilitator for lease negotiations. The Office of the Registrar of the *Aboriginal Land Rights Act 1983* has identified Aboriginal people with authority to speak for Biamanga Country.

The NPWS believes tourism guiding has the potential to provide income for the Aboriginal community. Funds have been directed to Bega, Eden and Merrimans Aboriginal community members in cultural tour operator training (Eden region). This is community capacity building which will enable communities to deliver part of the NPWS *Discovery* program as well as independent commercial services. The NPWS will also look at options for the ongoing indigenous management of Aboriginal lands as part of the Forest Agreement for the Eden Region. In addition, cultural tourism staff from the three local

Aboriginal land councils in the Eden Management Area were engaged in a cultural interpretation training program, including attendance at an Interpretation Australia Association Conference in Melbourne.

The NPWS has also begun the development of a statewide Wild Resource Use Policy in partnership with Aboriginal communities, SFNSW and other natural resource agencies.

SFNSW and Aboriginal partnerships

SFNSW and Aboriginal community partnerships are delivering the Keepa Keepa Elders' cultural learning program in Mount Sugarloaf in Heaton State Forest and Aboriginal cultural awareness programs to workers building the new correctional centre near Kempsey.

As a case study, the Kempsey Correctional Centre demonstrates SFNSW' flexibility and experience working with large organisations and local Aboriginal groups to protect cultural values. Firstly, SFNSW trained Aboriginal people as guides for the survey of the site and artefacts. Then in 2003 NSW Corrective Services and the NSW Police realised its staff needed more knowledge of Aboriginal cultural values. SFNSW brokered and developed a training program, funded under the Community Solutions and Crime Prevention Strategy, based on local Aboriginal expertise.

Pilot courses modified versions of the two-day CHAPS course for SFNSW staff, received very positive feedback.

Other joint arrangements are under development by SFNSW, including those at Warre Warren Aboriginal Place (McPherson State Forest), and the Anaiwan Elders near Walcha (LNE region). In the Eden region, the Aboriginal community is to help review SFNSW' working plans for flora reserves. Aboriginal people have also been involved in commercial firewood operations in State forests (Eden and Southern regions).

Cooperative management arrangements

The local Aboriginal community and the NPWS have commenced co-management arrangements and management planning for Mudjarn Nature Reserve in the Southern region. The local Aboriginal community was actively involved in the repatriation of remains to Blue Water Holes, Kosciuszko National Park and in post-fire rehabilitation surveys of fire affected areas, site surveys of fire containment trails, sites training and other archaeological surveys.

The NPWS' development of a new draft management plan for Kosciuszko National Park has undergone extensive community consultation through a new Aboriginal working group representing five nations associated with the mountains for thousands of years. The Aboriginal community has been represented at many levels of regional project work; for example 25 local Aboriginal people were involved in on-ground surveys.

Access for traditional and cultural purposes

The NPWS and SFNSW, in consultation with the Aboriginal community, have prepared a draft joint strategy on Aboriginal access for traditional purposes for the Eden region due for completion in December 2003. Delays in the completion of the strategy have been, in part, due to a focus of NPWS

resources on the Biamanga National Park handback program, which was still underway at 30 June 2003.

The strategy for the Southern region has not progressed because it will be based in the Eden region's strategy. There has been no progress on joint strategies for the UNE and LNE regions.

While joint strategies for Aboriginal access are yet to be completed for all regions, both the NPWS and SFNSW continue to provide access for traditional purposes. Hunting and gathering arrangements were in place for the NPWS estate in the UNE and LNE regions, while SFNSW continued to issue section 30I permits (under the *Forestry Act*) for the non-commercial collection of materials on State forests. SFNSW' FMZ system also allows traditional/cultural activity by Aboriginal people on State forests where material can not be readily sourced from other lands (e.g. FMZ 4) excluding commercial ventures or the reselling of material.

Refer also Chapter 1 – Significant Achievements.

Employment and training opportunities

No progress on a joint strategy for employment and industry development for Aboriginal people had been made at 30 June 2003 although the NPWS and SFNSW continue to pursue Aboriginal employment opportunities.

NPWS' achievements

Ongoing initiatives by the NPWS include its Aboriginal Employment and Training Strategy which facilitates employment and development opportunities for Aboriginal people and cross-agency approaches to training. The strategy could be used as the basis of future negotiations on a joint strategy.

In all, Aboriginal *Discovery* Rangers led 21 066 participants in 173 *Discovery* activities across the State.

The NPWS also employs Aboriginal contractors, for example in weed control at Seven Mile Beach National Park, and in the NPWS Aboriginal Cadet Ranger program in the South West Slopes Region. Four Aboriginal cultural heritage officers have been employed through funding for the management of new reserves in the Southern region.

In the UNE and LNE regions the NPWS emphasised capacity building within communities involved in co-management and on skills training so community members can be employed by the NPWS on a permanent, temporary or contractual basis. The *Discovery* Ranger program and a new Aboriginal identified position to develop consultation strategies for the NPWS with Aboriginal communities in its Northern Directorate were other employment areas.

SFNSW' achievements

Government funding flowing from the NSW forest agreements has increased the number of Aboriginal people gaining employment through SFNSW programs. SFNSW has directly employed Aboriginal people as cultural heritage officers (both short and long term) and members of thinning crews and fire protection teams as well as giving employment training.

In the Southern region, Aboriginal people have been employed to improve environmental conditions within flora reserves, such as by the removal of pine wildings (*Pinus* spp.) and rehabilitation of corroboree frog (*Pseudophryne corroboree*) habitat. These short projects gave participants useful vocational experience and skills..

SFNSW is also assisting the Australian Government to develop a National Indigenous Forestry Strategy with the Aboriginal and Torres Strait Islander Commission (ATSIC), key forest industry stakeholders, State governments and the Aboriginal community. Announced by the Federal Minister for Fisheries, Forestry and Conservation in April 2003, the objectives of the strategy are to:

- increase Aboriginal and Torres Strait Islander participation in the forest sector;
- outline means and support for Aboriginal people to participate in the forest industry;
- provide link to key government policy areas and industry strategies.

An Aboriginal liaison officer has been appointed by SFNSW to participate in the working group overseeing the development of the strategy which will investigate new opportunities for Aboriginal employment and ways to create better access to jobs in each region.

Further information on the national strategy can be found on the Australian Government Department of Agriculture, Fisheries and Forestry website (<http://www.affa.gov.au/nifs>).

Managing for other forest values and uses

Occupation permits on State forests

A taskforce represented by the NPWS, SFNSW and NSW Farmers was formed in late 2000 to consider the impact of exclusion of grazing in FMZ2 and FMZ 3a areas. It was expected that finalisation of exclusion or management arrangements was to occur by December 2001 but was deferred during the FMZ Assessment. Although the FMZ Assessment concluded during 2002/2003, consideration of impacts of the assent of the *National Park Estate (Reservations) Act 2002* on some occupation permits, and the continuation of drought throughout northern New South Wales has led to further delays. In 2003/2004 the NPWS and SFNSW will identify areas where grazing can be excluded and where the exclusion of FMZ 2 from grazing may make areas unviable

Roads and trails

A MOU on joint roads and trails and maintenance and access arrangements in the UNE and LNE regions was entered into between SFNSW and the NPWS in January 2000. A draft MOU for the Eden region has also been developed, but its finalisation deferred pending the preparation of a similar MOU for the Southern region to ensure compatibility of the MOUs for the two regions.

During 2002/2003 SFNSW and the NPWS began discussions on a draft MOU for the Southern region, expected by December 2005. It will contain region-wide conditions based on parts of the MOU for the UNE and LNE regions and the draft MOU for the Eden region. It will contain two schedules covering the South Coast and Tumut sub-regions, covering all roads of interest, including:

- roads vested in the Minister for the Environment (including roads of interest to SFNSW);
- roads on State forest of interest to the NPWS;
- other roads that are the responsibility of neither agency but of interest to both;
- roads not yet built or that require construction outside land tenure corridors which may affect other agencies.

Fire management

SFNSW and the NPWS are recognised as two of four fire authorities under the *Rural Fires Act*, and are members of the NSW Bush Fire Coordinating Committee, the statutory body responsible for the coordination of all state fire fighting agencies that includes the NSW Rural Fire Service, NSW Fire Brigades and various animal and environment agencies and land managers. The committee is also responsible for planning bush fire prevention and coordinated fire fighting and advises the Commissioner of the NSW Rural Fire Service on bush fire prevention, mitigation and coordinated bush fire suppression.

The Bush Fire Coordinating Committee must form a Bush Fire Management Committee for constituted rural fire districts and areas of the State with a reasonable bush fire risk. Both these committees formed under the *Rural Fires Act* must follow the principles of the ecologically sustainable development described in section 6(2) of the *Protection of the Environment Administration Act 1991*.

SFNSW and the NPWS are represented on the District Fire Committees (*Rural Fires Act*) along with DLWC and the NSW Rural Fire Service. District Fire Committees must complete District Hazard Reduction Plans which also consider landscape values.

Bush fire management is also an agency responsibility. The NPWS address bush fire management through its plans of management and reserve fire management plans. These address the provisions outlined and are also important for risk management, threatened species management and recovery planning.

SFNSW' draft corporate fire plan (to be completed in early 2006 with the finalisation of the EMS) and regional fire plans dovetail into section 52 (*Rural Fires Act*) plans of operations and bush fire risk management plans to present a coordinated response to hazards and fires across the landscape by all fire authorities in New South Wales.

Recreation and tourism

A joint recreation and tourism plan has yet to be developed by the NPWS and SFNSW for the UNE and LNE regions. However, the NPWS Northern Directorate has independently completed a draft recreation planning framework to manage visitor impacts and experiences. At 30 June 2003, the framework was still an internal working document and involved establishing criteria for recreation use, management and development in parks. Its aims include:

- more efficient allocation of resources for visitor facility development;
- ensuring appropriate development;
- maximising visitor satisfaction;
- minimising potential conflict between visitors;

- focusing visitor use to where it is ecologically sustainable and culturally appropriate;
- guiding the plan of management process.

The methods could be applied by other land managers. Completion of the framework is awaiting a statewide NPWS sustainable visitation strategy.

For SFNSW, there was no progress during the year on tourism and recreation planning in the UNE region. However, requirements for the LNE region were partially met by a draft *Recreation and Tourism Strategy for the State forests of the Central Coast and Lower Hunter – A joint strategy for the State Forests of Central coast and Lower Hunter* completed in collaboration with the community and the NPWS.

A cooperative recreation and tourism plan for the Eden region, and parts of the Southern region is in its final draft. It followed the signing of the Southern RFA in April 2001 and now includes the South-Coast sub-region of the Southern region in the plan. A taskforce of the NPWS, SFNSW, Eurobodalla Tourism, Sapphire Coast Tourism, Umurra Aboriginal Cultural Heritage Tours and DLWC developed the plan.

Until formal management plans and strategies are implemented, the NPWS and SFNSW will continue to cooperatively manage tourism and recreation in the Southern region. The NPWS' South East Forests Map and SFNSW' South Coast Forest Map identifies various recreation facilities, picnic sites, walking trails and tourist drives.

Carbon sequestration opportunities

In 2000, the Minister for the Environment and the Minister for Forestry entered into a MOU to expand carbon sequestration rights and environmental markets in areas of national parks. In 2001/2002 the NPWS identified more than 44 individual parcels of cleared land (mostly ex-farmland), covering over 9 400 hectares. Three potential pilot sites have since been found including one located in Border Ranges National Park (UNE region). At 30 June 2003, findings of the study were being prepared.

SFNSW is establishing plantations for carbon sinks under other partnerships. At the end of 2002/2003, 3 800 hectares of plantation had been established in the Hunter Valley for carbon credits, as part of the SFNSW and TEPCO partnership (entered into in 2000/2001). In 2003, SFNSW entered into a \$172 million carbon credit agreement with ST Microelectronics (details are provided in Chapter 1).

Managing timber supply

Supplementing timber supply

At 30 June 2003, a process for selecting land for purchase by SFNSW for timber supply had yet to be completed by SFNSW, the NPWS and PlanningNSW. The process is to include agreed criteria on the key substantially unmet CAR conservation targets without hindering the overall purpose of the Private Property Timber Supplementation program (UNE and LNE regions)¹⁵. It has previously been discussed

¹⁵ Private Property Timber Supplementation program funded through FISAP.

between agencies but no further progress was made during the year. Until a process is agreed SFNSW will meet requirements of the forest agreements through:

- consideration of flora and fauna values follow prescriptions in the Threatened Species Licence of the IFOA are applied to all private property purchases;
- application of a protocol (developed by SFNSW and the NPWS) for high conservation value old growth, wherever possible, prior to the purchase of properties;
- application of a process to which allows for consideration of under-represented forest ecosystems on private property.

For key under-represented forest ecosystems on private property the SFNSW process has considered modelling constraints identified in the CRA/RFA report, *Forest Ecosystem Classification and Mapping* (NPWS, 1999b) and outcomes of regional vegetation management plans and their consideration of vegetation types. Field assessment/verification identified and locates the forest ecosystems for protection.

Resource availability and sustainable yield

Significant strategic inventory supplementation for UNE and LNE regions has been undertaken by SFNSW, including the replacement of any plot where harvesting had occurred in the same compartment. SFNSW' formal inventory policy directly links to ongoing strategic Forest Resource and Management Evaluation System (FRAMES)¹⁶ sustainable yield monitoring and enables the replacement of inventory plots where harvesting has occurred. The support systems and work plans associated with the policy have only recently been completed and are being considered in regional works program. The process of undertaking additional FRAMES inventory measurements is covered in these work plans.

In the Eden region, SFNSW has implemented an inventory plot management system called REDEN. Designed to provide strategic analysis output for the even-aged regrowth forests of the south east, the system provides for biometrics specific to the regrowth forests of the south east of New South Wales. The output of this system has also been incorporated into a Spatial Woodstock and Woodstock wood flow model to provide a wood scheduling framework to meet the requirements of monitoring and managing the forest resource. Initial outputs of the system will be evaluated and sensitivity analysis completed in late 2005 to give a reliable understanding of sustainable yield. This evaluation will form a significant part of the consultation process on improvement to yield regulation in native forests managed by SFNSW.

SFNSW will discuss the approach with the EPA, PlanningNSW, the NPWS and stakeholders, in the near future, to develop a strategy for improving the yield prediction measures that were used in the Eden CRA/RFA. Although predictive modelling used for the Eden region during the CRA/RFA was not FRAMES, improvements may be feasible in some cases by direct application of enhancements developed for FRAMES in the north east (UNE and LNE regions) and Southern regions.

¹⁶ FRAMES – a computer modelling system for strategic level wood supply forecasting. It assists SFNSW to determine forest management schedules for native hardwood forests.

In the Southern region, SFNSW began some planning for additional inventory plot measurements in the Tumut sub-region during the year. However, establishment of plots throughout the region was delayed until other FRAMES work was completed. Work plans are now done and inventory plots should be established from October 2005 and completed by June 2006.

FRAMES improvement and review

FRAMES was developed under the guidance of a RACAC technical committee during the CRA/RFAs to address long-term sustainability in native forests following the 1996 Interim Forest Assessment. It was subsequently used to model high quality large sawlog supply at a broad (strategic) level prior to the North East RFA in 2000. Based on these analyses, the NSW Government entered into wood supply agreements with industry for a period of 20 years. However, concerns about the levels of supply, the underlying data and the planned reductions in volume after the 20 year agreement period, have led to a number of internal SFNSW and inter-agency studies designed to identify problems and potential remedial action.

In 2002 the inter-agency North East Wood Resources Working Group was established to improve the application of FRAMES in the UNE and LNE regions. The group, chaired by RACD of PlanningNSW, and represented by SFNSW, EPA and the NPWS, reviewed FRAMES modelling, and specifically considered a number of its critical components in detail. This work led to overall improvements to the FRAMES model expected to be completed by SFNSW by the end of 2005, including:

- inventory data used as input;
- pre- and post-harvest assessment;
- growth modelling;
- improvements to biometrics within FRAMES;
- architecture of the model itself.

These processes will contribute to improved strategic and tactical wood flow estimates, and a better understanding of sustainable yield available for the forest estate.

So far most improvements to FRAMES and to sustainable yield analyses has focussed on the UNE and LNE regions although the research, development, and better tools and procedures used in the analyses are readily transferable to the Southern region. This will mean reviews of sustainable yield for the Southern region will be able to proceed more quickly than the forest analyses for the north east regions.

Former members of the North East Wood Resources Working Group will reconvene in 2005/2006 to review SFNSW' work on FRAMES improvements in all forest agreement regions. Subsequent discussions with stakeholders will produce a broad understanding and acceptance of an improved FRAMES throughout the community.

FRAMES monitoring

In 1999/2000, SFNSW, the NPWS and PlanningNSW informally agreed that actual timber yields against FRAMES estimates for the UNE, LNE and Eden regions would be reported on a financial year basis, allowing it to be included in the annual reports to Parliament (as required by the forest agreements). This arrangement also applies to the Southern region since the agreement in 2002.

A number of issues related to information on actual yields against FRAMES estimates have hindered comprehensive reporting. In 2001/2002 SFNSW highlighted problems with 'actual versus predicted' methods that have prevented any meaningful comparison of FRAMES estimates with actual volumes harvested. Further studies by SFNSW will address these problems.

However actual harvest volumes have been consistently provided since the implementation of each forest agreement enabling SFNSW to track harvest levels against committed volume permitted under the terms of each forest agreement and IFOA. The combined actual volume of Veneer and High Quality Large¹⁷ sawlogs (quota sawlogs) harvested by SFNSW during 2002/2003 was 334 044m³. By region:

- 81 860m³ of Veneer and High Quality Large sawlogs were harvested from SFNSW native forests and hardwood plantations in the UNE region;
- 168 764m³ of Veneer and High Quality Large sawlogs were harvested from SFNSW native forests and hardwood plantations in the LNE region;
- 21 091m³ of High Quality Large sawlogs were harvested from SFNSW native forests in the Eden region;
- 62 329m³ of High Quality Large sawlogs were harvested from SFNSW native forests in the Southern regions.

For the Eden region, pulp grade and chipwood timbers also form part of committed volumes for the Eden region. Quota pulp grade and chipwood timbers harvested from SFNSW native forests in the Eden region during 2002/2003 was 313 870 tonnes.

Details on supply levels against committed volumes are provided under Criterion 2 - Chapter 3.

Production of timber products

Timber products, other than quota sawlogs (described above) harvested from SFNSW native forest and hardwood plantation during 2002/2003 was 407 707m³. A further 404 597m³ of non-quota sawlogs (including Veneer and High Quality Large sawlogs) were harvested from SFNSW softwood plantations.

Non-quota pulp grade and chipwood timbers were also harvested from SFNSW native forest and hardwood plantation in the UNE and LNE regions and native forest in the Southern regions, totalling 267 462 tonnes¹⁸. A further 52 444 tonnes of pulp grade and chipwood timbers were harvested from SFNSW softwood plantations across the four forest agreement regions.

¹⁷ High Quality large sawlogs – having a centre diameter under bark of at least 40 centimetres.

¹⁸ Hardwood pulp grade and chipwood volumes for the Eden region are not included here as they form part of the quota volumes designated in the IFOA for the region.

Details on actual volumes of non-quota sawlogs harvested from each forest agreement region (by log type) are presented in **Table 2-C** and **2-D**.

Table 2-C: Volumes of timber products other than quota sawlogs from State forests 2002/2003 – UNE and LNE regions

Log type	Unit	UNE region			LNE region		
		native forest	hardwood plantation	softwood plantation*	native forest	hardwood plantation	softwood plantation*
High Quality Small	m ³	25 981	0	0	23 904	0	0
Low quality	m ³	60 087	25 878	60 026	109 643	31 277	60 026
Poles/piles and girders	m ³	10 271	218	0	12 735	4 087	0
Preservation logs	m ³	0	0	784	0	0	784
Mining timber (round)	m ³	0	0	0	0	0	0
Fencing/landscape /sleepers (sawn)	m ³	0	0	0	1 404	0	0
Total	m³	96 339	26 096	60 810	147 686	61 673	60810
Pulp grade and chipwood	tonnes	22 829	14 262	3 689	138 578	26 309	3 689

* combined volume of softwood harvested from SFNSW softwood plantations in the UNE and LNE regions.

** includes high quality large sawlogs.

Source: SFNSW

Table 2-D: Volumes of timber products other than quota sawlogs from State forests 2002/2003 – Eden and Southern regions

Log type	Unit	Eden region		Southern region	
		native forest	softwood plantation	native forest	softwood plantation
High Quality Small	m ³	1 689	85 267**	5 419	0
Low quality	m ³	10 906	20 073	59 665	9 446
Poles/piles and girders	m ³	0	0	0	0
Preservation logs	m ³	0	30 209	0	13 746
Mining timber (round)	m ³	0	0	0	0
Fencing/landscape /sleepers (sawn)	m ³	24 391	0	152	0
Total	m³	36 986	50 282	65 236	23 192
Pulp grade and chipwood	tonnes	n/a	32 909	65 484	15 486

** includes high quality large sawlogs.

Source: SFNSW

Silvicultural practices

SFNSW' demonstration sites in the UNE, LNE and Southern regions form part of a four-tiered approach to silviculture training for SFNSW' planning and supervisory staff. Each demonstration site is of an operational scale size, and contains representative forest types, forest structure, and IFOA exclusion areas. Each site has a non-routine comprehensive pre-harvest inventory to assess silvicultural condition, followed up with post-harvest assessments. Results of the inventory are used to demonstrate varying applications of IFOA silviculture conditions.

Demonstration sites show staff, stakeholders and the community best practice silviculture in the forest, and illustrate how the planning processes deliver the forest agreement and IFOA silviculture conditions. Two demonstration sites have been established in the Queens Lake and Kiwarrak State forests (LNE region).

No formal demonstration sites have yet been established in the Southern region. However, informal sites are used on field days held for all staff implementing the Southern IFOA. Combinations of low, medium and high Single Tree Selection (STS) operations have been discussed in the field to ensure correct interpretation. A number of thinning sites have also been established.

An overview of SFNSW' audit process was included in its draft NFMS Overview (publicly exhibited in 2000 and since re-named the NFEMS). The audit process has since been put in place following the implementation of its Operational Compliance Monitoring and Audit Manual. The final audit process will be included in the EMS when complete.

Regular internal compliance checks are completed by SFNSW to identify potential breaches of the IFOAs, with which forestry operations in SFNSW native forests must comply. Results are publicly reported as part of the ESFM criteria and indicator monitoring and also at a statewide level in its annual *SEEing* reports.

Compliance with the licences contained in each IFOA is assessed by the NPWS, EPA and NSW Fisheries. Compliance by SFNSW with the Threatened Species Licence is assessed by the NPWS in accordance with comprehensive guidelines and procedures endorsed by the agency's executive in March 2002. The NPWS uses the guidelines and procedures to ensure consistent monitoring and enforcement.

An active audit program of SFNSW' forestry operations in relation to the Environment Protection Licence has been developed by the EPA, ensuring that SFNSW is properly protecting the aquatic environment. Non-compliance with conditions of the Environment Protection Licence are dealt with through meetings with senior SFNSW officers, feedback or warning letters, clean-up notices, penalty notices or prosecution actions.

Opportunistic threatened species compliance activities in relation to forestry operations are undertaken by NSW Fisheries where they coincide with other fishery compliance duties. NSW Fisheries investigate complaints when received.

Public reporting of compliance is provided in the NSW forest agreement implementation reports each year. Refer Chapter 3 - Criterion 7 for the results of SFNSW' internal compliance monitoring, and Chapter 4 for SFNSW' compliance with the components of the IFOAs and audit results.

Implementation, review and community awareness

Staff training, employment and industry initiatives

Staff training

During 2002/2003, over 1 800 training and development courses were undertaken by SFNSW staff and contractors, at a cost of over \$2.6 million, primarily in occupational health and safety, first aid, recognition and protection of environmental and cultural heritage values and soil and water training, all modules in the Forest Harvesting Operator course for forest workers. Another 55 courses provided training to 623 staff in fire fighting, accredited courses occupational health and safety and operational skills. Training programs were also developed for safe driving and a fire fighter fitness program was for 850 permanent staff.

Ongoing NPWS staff training programs include natural and cultural (including Aboriginal) heritage management and operational, technical and safety matters. Programs range from technical training related to occupational health and safety requirements to statewide capacity building initiatives for particular staff classifications. All NPWS staff attend cultural awareness training.

Employment and industry initiatives

During 2002/2003, the NSW Government directed \$2.1 million to the continuation of work by the Private Forestry Unit, the purchase of private property for timber supplementation purposes, resource inventory of the north coast forests, and Aboriginal cultural heritage management. The funding provided two positions in the Private Forestry Unit, six Aboriginal cultural heritage officers, and twelve positions for the resource inventory work. \$1.96 million was directed to land purchases for timber supplementation during 2002/2003, following the cessation of the Forestry Structural Adjustment Package (FISAP) Private Property Timber Supplementation Program in December 2002.

SFNSW also undertook non-commercial thinning operations in young regrowth stands in the Eden region staffed by displaced workers from sawmills in the region. The employees were subsequently engaged on a strategic inventory of the extensive regrowth stands which provided data to develop growth and yield models.

The NSW Government granted \$9.1 million per year for 2002/2003 and 2003/2004 for the establishment of new reserves in the Southern region. The main activities were pest species, fire, and Aboriginal heritage management, asset maintenance, preparation of management plans, and neighbour relations. Capital works outsourced by the NPWS since the Forest Agreement for the Southern Region was signed in 2002 include lookout and walking track construction, camping area development and interpretation facilities. Ninety-one positions identified in the Forest Agreement for the Southern Region for conservation and Aboriginal heritage management have been funded and include four Aboriginal cultural heritage officers (one a female position). Also in the Southern region, pest control programs, an extensive non-commercial thinning program and improvements to informal reserve areas are recipients of this funding, creating 18 full-time positions.

Employment opportunities for Aboriginal people are also a component of some of these initiatives. Details are in the 'Aboriginal Interests' section of this chapter.

FISAP initiatives

The NSW forest agreements resulted in the extension of FISAP funding for employment in forest industries in the UNE, LNE, Eden and Southern regions. FISAP funding was allocated to two initiatives in the north east regions, two in the Eden region and one in the Southern region.

North east regions

Initiatives included the Private Property Timber Supplementation Program which assists SFNSW to purchase timbered property to provide additional resources to the native timber industry. This compensated for reduced timber resources which were an outcome of the CAR reserve system. The program concluded in 2002/2003, resulting in the purchase of 10 properties, covering 13 357 hectares of native forest (2 637 ha in the UNE region and 10 720 ha in the LNE region), with an estimated volume of 141 440m³ of High Quality Large quota sawlogs purchased (33 675m³ in the UNE region and 107 118m³ in the LNE region).

The Log Haulage Assistance program was allocated \$1 million per year over five years to help native forest quota sawmilling companies meet additional log haulage costs incurred where they have to obtain quota sawlog supplies from outside their usual areas of supply (as a result of the establishment of the CAR reserve system). Funding will cease by December 2003. However, it appeared unlikely the full FISAP allocation would be spent. Before the March 2003 State election, the Premier announced the continuation of the Log Haulage Assistance program for a further two years. Details had not been finalised at 30 June 2003.

Eden region

For the Eden region, the Eden Recovery Mill initiative was completed in 2000/2001. While the Commercial Regrowth and Thinning program had yet to commence, being unlikely to proceed as it has effectively been superseded by funding individual harvesting operations under the Industry Development Assistance component of FISAP.

Southern region

\$2.5 million of FISAP funds have been allocated to the Sawlog Productivity Program – Silvicultural Programs for the South East Region to improve sawlog productivity of south coast forests by selecting and culling merchantable trees. This will restore productivity to degraded timber stands by releasing young, potentially merchantable trees inhibited by the unprofitable over-storey.

Community participation, education and awareness

Community awareness and education opportunities

Public awareness and education provided by agencies are generally coordinated at a corporate level so do not directly address ESFM although it is incorporated into many of the programs. For example the NPWS provided public and educational programs during 2002/2003 that included:

- guided walks and tag-along four-wheel drive tours;
- ranger talks and on-site inspections;
- continued development of the Sustainable Schools Program in New South Wales;
- training, planning and control programs for pest species.

The NPWS *Discovery* program also continued throughout the year providing public community education on natural and cultural heritage. The main themes of 2002/2003 were 'threatened species' and 'living with fire'. About 86 177 people participated in 2 432 education walks, talks and tours conducted in 18 NPWS Regions across the State.

SFNSW' activities increased in the past year. SFNSW organised sporting events, tree planting rehabilitation, landcare activities and school and community competitions with the support of corporate sponsorships and donations.

Ninety community based programs were undertaken by SFNSW Regions and over 790 volunteers participated in programs at Cumberland State Forest, Sydney during the year. A number of SFNSW Regions waived fees in support of local development projects; their donations included road gravel to local councils, fencing timber to neighbours, and chainsaw and four-wheel drive training for the NSW Rural Fire Service and State Emergency Service. SFNSW Hunter Region ran particularly successful community initiatives through the Ourimbah Protocol as well as educational programs for schools and community groups.

Improving cooperation between Government agencies

The Montreal Implementation Group (MIG) and National Forest Inventory processes have previously been described as key examples of improving cooperation and coordination to achieve integrated management for conservation, wood production and other values in both public and private forests. More recently, the Australian Forestry Standard, Australia's first national forest management certification standard, was launched on 11 October 2002 after nearly two years of development. It embodies performance criteria that support continual improvement towards sustainable wood production in Australia's forests. Consequently it has now been recognised by Standards Australia and designated Australian Standard 4708(Int)-2003 The Australian Forestry Standard.

The standard provides an example of cooperation and coordination to achieve integrated management for conservation, wood production and other values in public and private forests. The standard is being developed by Australia's Primary Industries Ministerial Council (formerly the Ministerial Council on Forestry, Fisheries and Aquaculture) in partnership with the National Association of Forest Industries, Australian Forest Growers and Plantation Timber Association of Australia.

Informing the public

Additional reporting mechanisms

Additional consultative and reporting mechanisms by agencies implementing the NSW forest agreements continue. These include ongoing corporate annual reporting and a range of agency-based initiatives. Previously reported in 2001/2001, details on these mechanisms are provided in **Appendix 2.1**.

ESFM criteria and indicators

Monitoring

Monitoring of the ESFM criteria and indicators for the UNE, LNE and Eden regions has been underway since 1999/2000. Monitoring for the Southern region commenced in 2002/2003, following implementation of the NSW forest agreement for the region in May 2002. 2002/2003 is the first year data have been collected and reported for the Southern region.

Results of NPWS and SFNSW monitoring are summarised in Chapter 3 of this report, and described in detail in the supplementary *ESFM Criteria and Indicators Monitoring Report*. The improvement of data collection techniques by the NPWS and SFNSW is ongoing. In 2002/2003, the NPWS improved internal systems for managing the data so that it is more useful within the agency, and able to meet multiple reporting needs.

SFNSW' SEEDs computer application improved its monitoring of ESFM criteria and indicators. The system's improved data management, storage and retrieval; helped SFNSW' work on ESFM criteria and indicators and MIG and *SEEing* reporting. SEEDs' structure and definitions help standardise regional data, increasing its consistency and accuracy. SFNSW continued improving its SEEDs database (implemented in 2001/2002) and developing its interface with other platforms.

Trial and assessment

The trial and assessment of the ESFM criteria and indicators have been ongoing tasks of the NPWS, SFNSW and PlanningNSW since 1999/2000 and have improved data collection and reporting for the indicators for the UNE, LNE and Eden regions. These improvements have been applied to the Southern region, where appropriate, since 2002. The indicators will be formally reviewed as part of the five year review of the agreements and approvals, this ongoing work feeding directly into the review process.

Data management

In March 2001 the NSW Government launched the Community Access to Natural Resources (CANRI) website (<http://www.canri.nsw.gov.au>) to integrate and share data between government departments and increase public awareness of natural resource management. Of use to community groups, industry groups, landholders, government agencies and students, CANRI centralises natural resources data,

such as vegetation mapping and data, soil profile information and water quality, storage and river flow data.

Further developments are underway to allow access to information on minerals and aquatic and terrestrial wildlife. For example, in 2002 the development of a biodiversity information system (BioNet) commenced that aims to allow users to search for records of specific species, or for all species across a specific area of the State.

Information on the CANRI program, projects and activities and new internet products can be found in the monthly newsletter *CANRI News* (<http://www.canri.nsw.gov.au/newsletter/index.html>).

Research

During the CRA/RFAs, areas of State forests were transferred to NPWS tenure, resulting in some SFNSW research projects being located in the NPWS estate. In accordance with requirements of the NSW forest agreements, details of all research projects in former State forests in the UNE, LNE and Eden regions have been identified and details (including location and access requirements) provided to the NPWS in 2000/2001. The NPWS is giving SFNSW access to sites in the north east regions including the former Lorne Flora Reserve (now national park) and Yabbra State forest (now Toonumbar National Park), and Coolangubra State forest (now part of the South East Forest National Park) in the Eden region.

More recently, one research project, in the Murramarang National Park in the Southern region was identified as requiring continued access by SFNSW. The NPWS is providing SFNSW with periodic access to the site.

The Forest Research and Liaison Committee, formed in 2000, is represented by a committee comprising the NPWS, SFNSW and PlanningNSW, formed to develop a joint research and monitoring strategy. However, a joint strategy has not yet been completed.

The NPWS has developed a Corporate Research Framework and a research plan for its Northern Directorate which details all current research projects and helps focus future research. A Biodiversity Research Strategy is also being developed under the *NSW Biodiversity Strategy* (NPWS, 1999a) by an inter-agency working group.

SFNSW publicly exhibited a draft monitoring and reporting strategy with the Regional ESFM Plans in 2000. The strategy is being finalised as part of the Regional ESFM Plans scheduled for completion in 2005. SFNSW also prepare an annual strategic plan for its research division. For additional information regarding State Forests of NSW initiatives see Research and Development Division – Annual Report 2002-03 (at <http://www.forest.nsw.gov.au/research>).

In late 2000 the Research Liaison Committee began the development of a compendium of forest research by asking each agency on the committee to identify its current and future research. This in turn contributed to a draft compendium by PlanningNSW, which sought further contributions (including published research) by a range of other land management agencies, research organisations and universities.

At the end of 2002/2003, there was a further review of the draft compendium underway to check that it adequately covered the Southern region, as well as the UNE, LNE and Eden regions.

A new proposal for an operational research trial of selective harvesting from some filter strips was developed by SFNSW and submitted to the EPA in November 2001. The EPA reviewed the proposal and made a number of technical comments to SFNSW in February 2002. Since then, SFNSW and the EPA have made significant progress on the research design and have agreed in principle on technical aspects of the design. Further discussions including some on site selection and field implementation will finalise the trial design.

By the end of the year, there was no further progress on the buffer-on-buffer trials in the Eden region. During negotiations between SFNSW and the EPA on buffer-on-buffer conditions in the Southern region, it was apparent that the EPA was reluctant to amend the Eden Environmental Protection Licence conditions. In the interim the Eden sawmill is being supplied with 1 000m³ of High Quality logs per year from the South Coast sub-region of the Southern region.

3 Monitoring ecologically sustainable forest management

Introduction

The following chapter provides a brief summary of the results of monitoring of the ESFM criteria and indicators for the UNE, LNE, Eden and Southern regions for 2002/2003. The summary presented here satisfies, in part, section 2.11.2 of the UNE, LNE and Southern regions forest agreements and section 2.10.2 of the Forest Agreement for the Eden Region. The following also satisfies a requirement of section 2.11.2 of each NSW Forest Agreement, where by the 'reporting on indicators must contribute to the annual reports to parliament by the Minister ...'¹⁹.

The ESFM criteria and indicators, developed during the CRA/RFA for each region, provide a mechanism by which changes in environmental, social and economic values of forests can be monitored over time. The indicators do not provide reasons for change. Rather they enable the uniform collection of data over time that can then be interpreted to determine whether management practices are effective in providing for sustainable forest management.

The indicators monitored as part of the NSW forest agreement process are described in Table 1, Attachment 9 of the UNE, LNE and Eden regions forest agreements, and Table 2, Attachment 7 of the Southern Region Forest Agreement. Many of these indicators have been based on the MIG set of sub-national indicators²⁰, which form part of the Australian Government's *State of the Forests* reporting. This has created a level of consistency in data collection at the regional and national levels. The indicators also maintain a close link with the NPWS *State of the Parks* and SFNSW *SEEing* monitoring and reporting.

Monitoring of the ESFM criteria and indicators has been carried out in the UNE, LNE and Eden regions since 1999/2000. This is the first year monitoring has been carried out for the Southern region, following the implementation of the Southern Region Forest Agreement in May 2002.

The quality and quantity of data and information being collected for the indicators has been increasing every year and early trends are emerging. The summary provided here has been limited to data, with some discussion on developments in improving monitoring and of activities and programs aiming to improve or maintain forest values. The supplementary *Ecologically Sustainable Forest Management Criteria and Indicators Monitoring Report 2002/2003* contains more details.

¹⁹ Construed as a reference to the Minister of Environment, Climate Change and Water as of the 27th April 2007.

²⁰ Defined in *A Framework of Regional (Sub-National) Level Criteria and Indicators of Sustainable Forest Management in Australia* (Commonwealth, 1998).

Criterion 1 - Biodiversity

Forest type

MIG Indicator 1.1.a: Extent of area by forest type and tenure (UNE, LNE, Southern regions)

Indicator 1.1: Extent of forest ecosystem types and vegetation types by growth stage (Eden region)

Sub-indicator 1.1.a.1: Understorey vegetation layer (Southern region)

The NPWS recorded significant gains in the extent of forest types on its estate during the year, the result of land transfers and acquisitions. Many of the gains were made in the north east regions, with smaller gains in the Southern and Eden regions. For State forests, the extent of forest types remained relatively stable.

New gazetta²¹ of NPWS land during the year resulted in an increase in 123 of the 163 identified forest ecosystem types in the UNE region. This increased the percentage of target achieved in the reservation of these forest ecosystem types. Additions included those to the Chaelundi National Park which improved the protection of Dry Foothills Spotted Gum and High Elevation Moist Open Tallowwood – Blue Gum forest types, and Dry Open New England Blackbutt and Escarpment Scribbly Gum – Apple in Guy Fawkes National Park. These additions also protected known occurrences of a number of threatened fauna species.

For the LNE region, 95 of the 200 identified forest types recorded an increase in extent due to new gazetta of NPWS lands. Additions included those to Barrington Tops SCA that protected Brown Barrell – Gum and High Elevation Messmate – Brown Barrell forest types and Smooth Barked Apple – Sydney Peppermint – Stringybark forest types in Medowie SCA. These additions also protected a number of threatened flora and fauna species.

For the NPWS estate in the Eden region, new gazettals made since 1999 have also increased the area of forest types in the NPWS estate and the percentage of target achieved in the reservation of these forest ecosystem types. Additions made during 2002/2003 resulted in an increase in the area of 25 forest ecosystem types. Generally, the additions only resulted in small improvements towards meeting under-represented forest ecosystem types in the region, primarily improving regional connectivity and rationalising management along the NPWS estate boundaries. The exception to this is the addition of Yurrammie SCA which, subject to detailed field validation, significantly contributed to the area of old growth coastal foothills dry shrub forest, an old growth forest type under-represented in the NPWS estate. Overall, additions tended to increase the extent of forest types and old growth forest types which were already well-represented on the NPWS estate.

The extent of forest types on the NPWS estate in the Southern region recorded an increase in the extent of 49 of the 144 forest ecosystem types, increasing the percentage of target achieved in the reservation of those forest ecosystem types. These increases were due to new gazettals of NPWS land between January 2001 and June 2003. Additions to the conservation reserve system in the Southern region totalled just over 28 000 hectares. Acquisitions such as the addition of Major's Creek to the reserve system resulted in 77% of the target for Araluen Acacia Herb/grass dry forest (*E. melliodora*/*E. maidenii*) being achieved since January 2001, bringing the total target achieved to 147%.

²¹ The formal process of land becoming national park estate by notice in the *NSW Government Gazette*.

The extent of forest types across State forests has remained relatively unchanged since ESFM criteria and indicator monitoring began.

Improvements recorded in the extent of forest types across the NPWS estate and State forests have been primarily the result of land acquisitions and revocations and do not establish the effectiveness of management. The true value of this indicator will become evident over time, as the nature of forests is such that little change in the extent of forest types can be recorded from year to year.

The ability to monitor changes in the extent of forest types will improve following the completion of NPWS' four-year program to validate vegetation assemblage mapping in the Eden region. Results will give NPWS managers a classification and maps precise enough for fire and park management. It will also improve the future outcome of fauna modelling. The aims are to correct errors and validate the extent of vegetation assemblages identified as having conservation significance, particularly on the NPWS estate and private lands, and to integrate the Eden forest ecosystem map into the Southern region maps.

The NPWS has started validating vegetation communities in reserves identified and mapped as part of the CRA/RFA process in the Southern region. At the end of this reporting period, initial data collection had been completed in the Snowy River Shire Nature Reserves and in the Tumbarumba Shire. This information helps in preparing management plans for reserves in the region.

Growth stage

MIG indicator 1.1.b: Area of forest type by growth stage distribution by tenure (UNE, LNE, Southern regions)

Indicator 1.1: Extent of forest ecosystem types and vegetation types by growth stage (Eden region)

Growth stages within the NPWS estate and State forests have remained relatively stable. As with the previous indicator, changes have been the result of land additions and revocations.

In the UNE region 108 of the identified 163 forest ecosystems recorded an increase in the percentage of candidate old growth forest. For the LNE region 72 of the identified 200 forest ecosystems recorded an increase in the percentage of candidate old growth forest.

New gazettals to the NPWS estate in the Eden region during 2002/2003 increased the area of candidate old growth stands in 13 forest ecosystems. The extent of growth stages within the estate increased by 1 888 hectares. Significantly, 344 hectares of old growth eucalypt forest were added, mainly within the Yurrammie SCA.

For the Southern region, 32 of the 144 forest ecosystems identified in the region recorded an increase in the percentage of candidate old growth on NPWS lands due to new gazettals of NPWS land between January 2001 and June 2003. While additions to the conservation reserve system in the Southern region totalled just over 28 000 hectares, a significant portion of this was classified as candidate old growth forest (11 700 ha) and disturbed old growth forest (8 327ha). Additions made to the NPWS estate in the Southern region significantly added to the extent of old growth forest, including greater than 73% of Brindabella SCA²² (total area 2 828 ha) identified either as candidate old growth forest or disturbed old growth forest and greater than 90% of Wereboldera SCA (2 249 ha) as either candidate old growth forest or disturbed old growth forest.

²² Established since the Southern region CRA/RFA.

The extent of growth stages within State forests has not changed significantly since 1999/2000. Areas of rainforest and high conservation value old growth, protected in the SFNSW FMZ system, have remained relatively stable, with the most change occurring within the operational zones.

Fragmentation

MIG Indicator 1.1.e: Fragmentation of forest types (UNE, LNE, Southern regions)

Indicator 1.2: Extent of connectivity in the forest landscape in relation to threatened species, habitat, general retained habitat on private land and conservation reserves (Eden region)

Reducing fragmentation (or increasing connectivity) of forest areas across the landscape facilitates movement of fauna between forest areas. To effectively monitor changes in the level of fragmentation, a landscape measure is needed. Presently, such a broad scale measure is not available. However, various programs, such as the VCA program (administered by the NPWS), and the expansion of SFNSW plantation estate are continuing, and provide an indicative measure of changes to the level of fragmentation between forest areas.

The NPWS VCA program has experienced increasing interest from private landholders in recent years. These agreements, made between the Minister for the Environment and private landholders, permanently protect the natural and cultural values of the land for which they are signed. Typically, lands covered by VCAs contain one or more features such as, threatened species habitat, declared wilderness, high quality remnant vegetation or sites of Aboriginal significance.

At the end of 2002/2003 over 9 500 hectares of land had been protected by VCAs across New South Wales. Of this area, more than 6 600 hectares was protected within the forest agreement regions. Specifically, in 2002/2003 over 645 hectares of private land in the UNE, LNE, Eden and Southern regions were newly protected as the result of 19 VCAs entered into between private landholders and the Minister for the Environment. By region, two VCAs were signed during 2002/2003 in the LNE region (almost 77 ha), 12 VCAs signed in the Eden region (428 ha) and five VCAs signed in the Southern region (140 ha). No VCAs were signed in the UNE region during the year.

Significantly, two VCAs entered into during the year in the Southern region protected an endangered ecological community - Illawarra Subtropical Rainforest, and two endangered plants - Illawarra Socketwood (*Daphnandra* sp. C) and white wax-flower (*Cynanchum elegans*).

The value of VCAs to increase connectivity of forest areas is identified by the area of VCAs that provide links to wildlife corridors and adjoin the NPWS estate. Data obtained through the NPWS Conservation Partners database identified over 1 800 hectares of VCAs in the UNE, LNE, Eden and Southern regions that provided a link with a wildlife corridor or adjoined the NPWS estate. At 30 June 2003, 8% of the total area of VCAs provided a link in a wildlife corridor and 20% adjoined the NPWS estate. Therefore, the level of connectivity has increased due to the creation of these VCAs. However, due to the recent introduction of its Conservation Partners database, the NPWS has not yet included all VCA data in the system.

Plantations reduce the level of fragmentation across the landscape by providing islands to areas that do not already share a boundary with existing forests. During the year, SFNSW established over 5 600 hectares of plantation in the UNE, LNE, Eden and Southern regions.

Fragmentation of forest areas is likely to be further reduced in future because of NPWS' systematic approach to landscape conservation taken in their Key Habitats and Corridors Project in north east New South Wales. Distributional information for forest fauna has been summarised and integrated to identify important areas for conservation, regional fauna key habitats and linking habitat corridors. This information supports conservation planning, assessment and restoration activities. The study area extends from Newcastle to the Queensland border, and west to the Inverell area. The Key Habitats and Corridors project has been reported in *Pacific Conservation Biology* 8: 235-254, and will also be published as NSW NPWS Occasional Paper 32.

Forest dwelling species

MIG indicator 1.2.a: A list of forest dwelling species (UNE, LNE, Eden, Southern regions)

Indicator 1.3.b: List of representative species by abundance. Representative sample to include threatened species, key functional groups and indicator species (Eden region)

The NPWS' forest dwelling species lists are derived primarily from the *Atlas of NSW Wildlife (Wildlife Atlas)* records. On the NPWS estate the *Wildlife Atlas* identified within the forest agreement areas:

- 587 vertebrate fauna species, three invertebrate fauna species and 2 270 vascular plant species in the UNE region;
- 574 vertebrate fauna species, one invertebrate fauna species and 2 236 vascular plant in the LNE region;
- 361 vertebrate fauna species, no invertebrate fauna species and 1 375 vascular plant species in the Eden region;
- 484 vertebrate fauna species, no invertebrate fauna species and 1 098 vascular plant species in the Southern region.

A few additions were identified for native fauna species across the UNE, LNE, Eden and Southern regions. The NPWS note that the number of vertebrate species recorded across the regions in 2002/2003 has decreased compared to 2001/2002 due to inaccuracies in recording and calculating amounts for that period. Some inconsistencies have been identified between 2002/2003 data and that presented in 2001/2002 due to the size and complexity of the data used for reporting against this indicator. These inconsistencies will be corrected for 2003/2004.

As 2002/2003 was the first year of reporting for the Southern region, the data will be used as the baseline for reporting in future years. It should be noted that the total number of vascular plant species identified as occurring in the Southern region excludes alpine species, as their habitat was considered to be above the tree line (therefore not defined as 'forest dwelling').

Increases in the number of recorded forest dwelling species in the *Wildlife Atlas* are likely to reflect research and survey effort rather than true increases in the species richness of forested areas. The *Wildlife Atlas* relies upon the public and government staff contributing their observations, survey and research data. Therefore, any large increase in the number of forest dwelling species within a region for a given year is often due to the contribution of large data sets to the *Wildlife Atlas*, such as those from other state agencies. These can have records dating back over many years, so reported increases might include species recorded prior to the reporting period.

Revised SFNSW forest dwelling species were not available for this reporting period.

The NPWS is continuing activities in relation to flora and fauna species, such as surveys of plant species of significance at sites in Border Ranges National Park (UNE region) and a survey of littoral rainforest patches in Bongil Bongil National Park (LNE region). A genetic assessment of *Nothofagus*, *Eleocarpus* and *Leucopogon* species and a fauna study of Arakwal National Park also commenced.

Thirty two flora and fauna surveys were undertaken as part of developing plans of management in the Southern region.

Threatened species, populations and ecological communities

MIG Indicator 1.2.b: The status (threatened, rare, vulnerable, endangered or extinct) of forest dwelling species at risk of not maintaining viable breeding populations, as determined by legislation or scientific assessment (UNE, LNE, Eden, Southern regions)

Sub-indicator 1.2.b.1: The status of endangered populations and ecosystems as determined by legislation or scientific assessment (UNE, LNE, Southern regions)

The *Threatened Species Conservation Act* provides the legislative framework for the protection of flora and fauna in New South Wales. Flora and fauna species, populations and ecological communities may be listed for protection in Schedules 1 and 2 of the Act. The schedules apply across all land tenures and are maintained by the NSW Scientific Committee.

There has been an increase in the number of species, key threatening processes and ecological populations and communities listed under the Schedules of the *Threatened Species Conservation Act*. However, the increases do not necessarily reflect the true rate at which species are actually becoming threatened. While species, populations and communities are undoubtedly still at risk in New South Wales, the values presented for this indicator are likely to reflect the management response to the issue more accurately than the true status of all forest dwelling species. Nor does this measure distinguish those species for which status is worsening or improving under current management practices. Increases in the number of species listed in the Schedules under the *Threatened Species Conservation Act* are a result of a number of issues, including;

- increasing knowledge about species, populations and communities;
- taxonomic revision resulting in the splitting of previously identified species into a number of new species (sometimes with particular habitat requirements and/or limited ranges);
- improvements to the Committee process allowing for efficiencies in processing proposals for listing;
- changes to the *Threatened Species Conservation Act* regarding what can be listed; and
- increasing knowledge among the community regarding the listing process.

Changes in the number of species, populations and communities listed under Schedules of the *Threatened Species Conservation Act* are likely to reflect the NSW Scientific Committee process of nomination and listing of species, endangered populations and communities, rather than the rate at which they become threatened.

Listings of flora and fauna species

Additions made to the Schedules of the *Threatened Species Conservation Act* relevant to the NPWS estate for each of the forest agreement regions are provided below.

For the UNE region:

- Seventy-eight vascular plants and 15 vertebrate fauna species were listed as endangered in Schedule 1 of the *Threatened Species Conservation Act*. One vascular plant, *Oberonia complanata*, was newly listed. No new vertebrate fauna species were listed;
- Fifty-four vascular plants and 91 vertebrate fauna species were listed as vulnerable in Schedule 2 of the *Threatened Species Conservation Act*. Two vascular plants, *Muehlenbeckia costata* and *Cyperus rupicola*, were newly listed. No new vertebrate fauna species were listed.

For the LNE region:

- Forty-two vascular plants and 13 vertebrate fauna species were listed as endangered in Schedule 1 of the *Threatened Species Conservation Act*. One vascular plant, *Zieria involucrate*, was reclassified from vulnerable to endangered. No new vertebrate fauna species were listed;
- Sixty-nine vascular plants and 77 vertebrate fauna species were listed as vulnerable in Schedule 2 of the *Threatened Species Conservation Act*. No new vascular plants were listed. Five vertebrate fauna species were newly listed, including the tree frog (*Litoria daviesae*) and the speckled warbler.

For the Eden region:

- Twenty-two vascular plants and nine vertebrate fauna species were listed as endangered in Schedule 1 of the *Threatened Species Conservation Act*. One vascular plant, *Correa lawrenciana* var. *genoensis*, was newly listed. No new vertebrate fauna species were listed;
- Sixteen vascular plants and 40 vertebrate fauna species were listed as vulnerable in Schedule 2 of the *Threatened Species Conservation Act*. No new vascular plants or vertebrate fauna species were listed.

For the Southern region:

- Twenty-three vascular plants and 20 vertebrate fauna species were listed as endangered in Schedule 1 of the *Threatened Species Conservation Act*. One of vascular plant, *Grevillea renwickians*, was newly listed, and one vertebrate fauna species, stuttering frog (*Mixophyes balbus*), was reclassified from vulnerable to endangered;
- Twenty-six vascular plants and 57 vertebrate fauna species were listed as vulnerable in Schedule 2 of the *Threatened Species Conservation Act*. No new vascular plant or vertebrate fauna were listed.

For most of the forest agreement regions there is an increasing number of fauna and flora species being listed in Schedule 1 or 2 of the *Threatened Species Conservation Act*. The increase in the number of species listed in Schedules 1 or 2 during 2002/2003 compared to the figures presented in 2001/2002 is also due to the inclusion in the *Wildlife Atlas* of a number of new forest dwelling species

occurring within the regions. These species were already listed in Schedule 1 or 2 of the *Threatened Species Conservation Act* prior to 2002/2003.

Key threatening processes

At the end of the reporting period, there were 15 key threatening processes listed in Schedule 3 of the *Threatened Species Conservation Act* relevant to forest dwelling species. Of these, four threatening processes were newly listed in 2002/2003 that are relevant to the UNE, LNE, Eden and Southern regions:

- Importation of red imported fire ants *Solenopsis invicta* Buren 1972 into New South Wales;
- Competition from feral honeybees *Apis mellifera*;
- Infection by *Psittacine Circoviral* (beak and feather) disease affecting endangered *Psittacine* species and populations;
- Infection of native plants by *Phytophthora cinnamomii*.

Listing of populations and ecological communities

At 30 June 2003, there were eight endangered populations listed in Schedule 1 of the *Threatened Species Conservation Act* relevant to the UNE, LNE, Eden and/or Southern regions. Two new listings were made during the year relevant to the forest agreement regions:

- Emu *Dromaius novaehollandiae* population in the New South Wales North Coast Bioregion and Port Stephens Local Government Area (LNE region);
- *Eucalyptus seeana* Maiden in the Greater Taree Local Government Area (UNE region).

There were 17 ecological communities listed relevant to the UNE, LNE, Eden and/or Southern regions. New listings made during the year relevant to the forest agreement regions were:

- Milton Ulladulla Subtropical Rainforest in the Sydney Basin Bioregion (Southern region);
- Umina Coastal Sandplain Woodland in the Sydney Basin Bioregion (LNE region);
- Hunter Lowland Redgum Forest in the Sydney Basin Bioregion (LNE region);
- Warkworth Sands Woodland in the Sydney Basin Bioregion (LNE region).

Threatened species surveys on State forests

On State forests, current licensing conditions under the *Threatened Species Conservation Act*²³ require SFNSW to record the presence of threatened fauna and flora on its estate. Data are collected during pre-harvest surveys of forest types identified for harvesting. Results of these surveys assist SFNSW in measuring any impacts its activities are having on threatened species. The number of threatened species sighted determines the harvesting prescriptions set in place, which in turn affects the area available for harvesting.

The number of threatened species sighted is directly dependent on surveys in areas of forest scheduled for harvesting. Different forest types contain different species and habitat. The place and time of surveys and prevailing climatic conditions also have a bearing on which species - and the

²³ Threatened Species Licence contained in the IFOA for each region.

number of individuals – that are sighted. While some annual variation is acceptable, any significant decline in the number of individuals sighted over time could act as an early warning and trigger a more thorough investigation.

Pre-harvest surveys undertaken by SFNSW during 2002/2003 recorded 37 of the targeted 60 threatened fauna species in the UNE, LNE, Eden and Southern regions. The number of individual sightings totalled 2 348 across all regions:

- 606 individuals sighted in the UNE region;
- 880 individuals sighted in the LNE region;
- 44 individuals sighted in the Eden region;
- 818 individuals sighted in the Southern region.

A further 40 021 sightings of the grey-headed flying fox were also recorded from three flying fox camps occupied during the 12 month period in the LNE region (Hunter region).

Data do not include research surveys or incidental sightings in State forests.

Species management measures

Indicator 1.3: Management measures in place to maintain species extent and abundance (interim for the first five years of Agreement) (Eden region)

To improve species extent and abundance, a range of management measures are being developed and implemented. Key management measures include recovery planning and threat abatement planning. The data below show that while there are management measures being implemented to support threatened species conservation – and biodiversity as a whole, it is too early to determine their effectiveness and this will require longer-term monitoring.

Recovery planning

NPWS' recovery plans are the main tool containing management actions, which maintain and secure threatened species, endangered populations and endangered ecological communities. Plans are completed for flora and fauna species listed in Schedules 1 and 2 of the *Threatened Species Conservation Act*.

At 30 June 2003, there were 43 vertebrate fauna species and 33 vascular plant species in the UNE region with recovery plans ranging in status from initial planning stage to approval by the Minister for the Environment or to being nationally adopted. Approved plans included those for flora species, Minyon Quandong (*Elaeocarpus* sp 'Rocky Creek') and *Ziera prostata*.

For the LNE region, there were 39 vertebrate fauna species and 12 vascular plant species with recovery plans ranging in status from initial planning stage to approval by the Minister for the Environment or to being nationally adopted. Approved plans included those for fauna species, the yellow-bellied glider and flora species *Velleia perfoliate* (nationally approved). Draft plans for the bush-stone curlew (*Burhinus grallarius*) and the Hastings River mouse were also exhibited.

For the Eden region, there were 24 vertebrate fauna species and 14 vascular plant species with recovery plans ranging in status from the initial planning stage through to being approved by the Minister for the Environment. Approved plans included those for the yellow-bellied glider and flora species, *Gentiana baeuerlenii*.

For the Southern region, there were 37 vertebrate fauna species and 23 vascular plant species with recovery plans ranging in status from the initial planning stage through to being approved by the Minister for the Environment or being nationally adopted. Approved plans included those for fauna species, the spotted frog (*Litoria spenceri*) and the mountain pygmy possum (*Burramys parvus*) and flora species, *Carex raleighii* and *Irenepharsus magicus*.

A summary of the status of recovery plans for the UNE, LNE, Eden and Southern regions for forest dwelling vertebrate fauna and vascular plants listed in the Schedules of the *Threatened Species Conservation Act* is presented in **Table 3-A**.

Recovery plans are also developed for endangered populations and ecological communities listed under the *Threatened Species Conservation Act*. Two recovery plans for endangered populations progressed significantly in 2002/2003, with the recovery plan for the Koala, Hawks Nest and Tea Gardens population placed on public exhibition in March 2003.

In 2002/2003 initial recovery planning commenced for one of the endangered ecological communities, the Kurri Sand Swamp Woodland in the Sydney Basin Bioregion located in the Lower Hunter area of LNE region.

Note, not all recovery plans may be reported due to the difficulties in matching recovery plan data to each of the regions, especially in the case of multi-species recovery plans. Also when, NPWS staff are inputting data into its Recovery Planning database they are asked to specify the region to which the plan applies. If the staff member is unsure the plan will not be included for the forest agreement area.

Threat abatement planning

The *Threatened Species Conservation Act* also provides for threat abatement plans for key threatening processes listed in the Schedule 3 of the Act. The first threat abatement plan was endorsed by the Minister for the Environment in December 2001, *Threat Abatement Plan for Predation by the Red Fox (*Vulpes vulpes*)* (NPWS, 2001b) and has now been implemented for two years. The draft threat abatement plan for 'Predation by *Gambusia holbrooki* Girard, 1859 (Plague Minnow or Mosquito Fish)', was publicly exhibited during 2002/2003. A further six threat abatement plans were being prepared by the NPWS during 2002/2003, ranging in status from initial planning to draft completed.

Recovery plans prepared under the *Threatened Species Conservation Act* may be viewed through the NPWS website at: <http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Recovery+plans>, and threat abatement plans at: <http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Threat+abatement+plans>.

Table 3-A: Recovery plan status of forest dwelling species 2002/2003

Status	Region			
	UNE	LNE	Eden	Southern
Vertebrate fauna				
initial planning (preliminary investigation being undertaken)	4	4	4	5
in preparation (in advanced preparation)	29	27	13	20
draft complete (draft recovery plan completed and seeking internal and external endorsement)	2	3	3	6
draft exhibited (draft recovery plan publicly exhibited as required under the <i>Threatened Species Conservation Act</i>)	4	4	2	2
approved (final recovery plan approved by the Minister for the Environment)	4	1	2	4
National (plan prepared under the regulations of the <i>Endangered Species Protection Act 1992</i> (Cwlth). Plan yet to be upgraded to the requirements under the <i>Threatened Species Conservation Act</i>)	0	0	0	0
total	43	39	24	37
Vascular flora				
initial planning (preliminary investigation being undertaken)	4	3	1	7
in preparation (in advanced preparation)	16	4	3	10
draft complete (draft recovery plan completed and seeking internal and external endorsement)	3	0	0	0
draft exhibited (draft recovery plan publicly exhibited as required under the <i>Threatened Species Conservation Act</i>)	2	1	5	2
approved (final recovery plan approved by the Minister for the Environment)	4	1	5	3
National (plan prepared under the regulations of the <i>Endangered Species Protection Act 1992</i> (Cwlth). Plan yet to be upgraded to the requirements under the <i>Threatened Species Conservation Act</i>)	4	3	0	1
total	33	12	14	23

Source: NPWS

Criterion 2 – Productive capacity of forest ecosystems

Land available for timber production

MIG Indicator 2.1.a: Area of forest land and net area of forest land available for timber production (UNE, LNE, Eden, Southern regions)

- Information provided for this indicator applies to State forests only. Figures reported do not include private forestry activities.

Overall, the area of harvestable State forest has remained relatively stable across the UNE, LNE and Eden regions since 1999/2000. Some minor changes in the area available for harvest have been recorded over the past four years as the result of purchases, revocations and the re-assessment of lands.

At 30 June 2002, SFNSW native forest covered about 1.4 million hectares across the UNE, LNE, Eden and Southern regions. Of the total area of State forest in the four regions, 742 966 hectares (53%) was available for harvest, with the remaining 651 578 hectares (47%) protected within the FMZ system for conservation purposes.

By region:

- of the 430 233 hectares of SFNSW native forest situated in the UNE region, 178 900 ha (42%) was available for timber production, with the remaining 251 333 hectares (58%) held in reserve for conservation purposes;
- of the 514 288 hectares of SFNSW native forest situated in the LNE region, 249 547 hectares (48%) was available for timber production, with the remaining 264 741 hectares (52%) held in reserve for conservation purposes;
- of the 163 563 hectares of SFNSW native forest situated in the Eden region, 121 371 hectares (74%) was available for timber production, with the remaining 42 192 hectares (26%) held in reserve for conservation purposes;
- of the 286 100 hectares of SFNSW native forest situated in the Southern region, 192 788 hectares (67%) was available for timber production, with the remaining 93 312 hectares (33%) held in reserve for conservation purposes.

A further 72 253 hectares of SFNSW hardwood plantation and 272 221 hectares of softwood plantation was available for harvest across the four regions. By region:

- 53 412 hectares of hardwood plantation and 24 259 hectares of softwood plantation was available for harvest in the UNE region;
- 18 243 hectares of hardwood plantation and 17 760 hectares of softwood plantation was available for harvest in the LNE region;
- 598 hectares of hardwood plantation and 42 848 hectares of softwood plantation was available for harvest in the Eden region;
- nine hectares of hardwood plantation and 187 354 hectares of softwood plantation was available for harvest in the Southern region.

It should be noted that the area of land available for harvesting (shown above) does not represent the actual area of native forest harvested. The area identified for harvest can exclude land classed as historic, Aboriginal sites, wildlife corridors, heath, rocky outcrops, rainforest and rare non-commercial forest types, high conservation value old growth forest, filter strips and protected land.

Total growing stock

Indicator 2.1.b: Total growing stock of both merchantable and non-merchantable tree species on native forest land available for timber production (UNE, LNE, Southern regions)

2002/2003 was the first year data were available for this indicator. Data provided by SFNSW is presented in the *ESFM Criteria and Indicator Monitoring Report 2002/2003*.

Timber products compared to sustainable volume

Indicator 2.1.d: Annual removal of wood products compared to sustainable volume (UNE, LNE, Southern regions)

Indicator 2.1.b: Annual removal of timber and non-timber products from forest ecosystems compared with those estimated to be ecologically sustainable by tenure (Eden region)

Indicator 2.1.d: Annual removal of timber products and non-timber products from forest ecosystems by volume (Eden region)

Indicator 6.1.a: Value and volume of wood and wood production (Southern region)

Committed/sustainable volumes harvested

Quota sawlogs

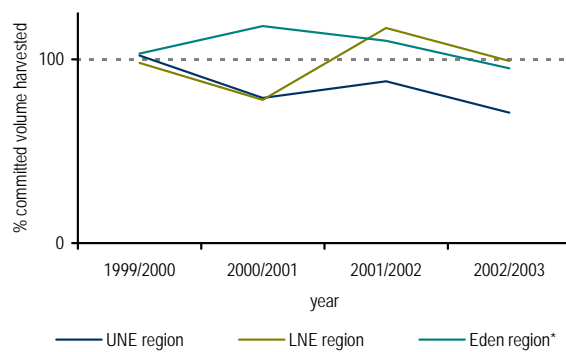
SFNSW harvest volumes are designated in the NSW forest agreement and IFOA for each region. The volume harvested within any one year may vary from the committed volume²⁴ by 25%, but not exceed 5% over a five year period. This provision accommodates changes in environmental and economic circumstances from year to year.

Quota sawlogs are Veneer sawlogs and High Quality Large sawlogs and make up committed harvest volumes. Quota sawlogs harvested from SFNSW native forest and hardwood plantations during 2002/2003 did not exceed those permitted under the terms of the NSW forest agreements and IFOAs. As shown in **Figure 3-A**, quota sawlog volumes have not exceeded the permissible harvest range for each region since the agreement and approval came into effect in 1999.

Quota sawlogs harvested from SFNSW native forests and hardwood plantations in the UNE region have remained below 100% of the committed volume since 2000/2001. Volumes harvested during the year were the lowest since the agreement and approval were implemented. A total of 81 860m³ of quota sawlogs were harvested in the region. This represents 71% of the committed volume, calculated using a sustainable volume of 155 800m³ per annum as extrapolated from the IFOA [109 000 per annum + 19 770 per first five years (pro rata is 3 954)].

Quota sawlogs harvested from SFNSW native forests and hardwood plantations in the LNE region have fluctuated over the past four years. The actual volume harvested peaked in 2001/2002 and fell to 168 764m³ in 2002/2003. This represents 99% of the committed volume, calculated using a sustainable volume of 170 592m³ per annum as extrapolated from the IFOA [160 000 per annum + 23 407 per first five years (pro rata is 4 681)].

²⁴ Committed volume – the volume of timber that may be harvested each year under the terms of the NSW forest agreements and IFOAs.



*All quota sawlogs harvested from native forest

Southern region has not been included as 2002/2003 is the first year of reporting

Source: SFNSW data

Figure 3-A: Committed volume harvested – UNE, LNE, Eden regions

In the Eden region all quota sawlogs were harvested from SFNSW native forests. Volumes harvested remained above 100% between 1999/2000 to 2001/2002, falling to 95% of the committed volume in 2002/2003. The actual volume harvested was 24 068m³, calculated using a sustainable volume of 123 000m³ per annum.

In the Southern region, timber harvesting under the terms of the NSW forest agreements and IFOAs was undertaken for the first time in 2002/2003 following the implementation of the agreement and approval in May 2002. Committed harvest volumes taken from native forests in the region comprised 62 329m³ of High Quality large sawlogs from SFNSW native forest only. This represents 65% of the committed harvest volume, calculated using a sustainable volume of 96 500m³ per annum, extrapolated from the IFOA [48 500 (South Coast) and 48 000 (Tumut)].

In the Eden region, pulp grade sawlogs also form part of quota log volumes. As designated in the IFOA for the region, quota sawlogs are calculated using a sustainable volume of 345 000 tonnes per annum. Quota pulp grade sawlogs are for hardwood only, obtained from either native forest or plantation. State forests in the Eden region do not have any harvestable hardwood plantation areas, therefore all hardwood timbers are harvested from native forests. The volume of pulp grade sawlogs harvested in 2002/2003 increased slightly compared to 2001/2002 to 313 870 tonnes, representing 91% of the committed volume.

Non-quota sawlogs and pulp grade and chipwood timbers

Volumes of non-quota sawlogs and pulp grade and chipwood timbers harvested from each region are provided in Chapter 2 – production of timber products.

Standing volume of species logged

Indicator 2.3: Standing volume of log stocks by species groups and diameter at breast height class for multi-aged and regrowth native forest and available for timber production by land tenure (Eden region)

No data were available for this indicator in 2002/2003. However, it is possible that data may be available in future years, following the development of a new software package by SFNSW called REDEN. Refer to Chapter 2, resource availability and sustainable yield for further details.

Species and royalty of logs harvested

Indicator 6.1: Average volume and royalty value of logs harvested per annum by species and grade by tenure (Eden region)

- This indicator was defined within the Eden region set of criteria and indicators under Criterion 6 – Socio-economic Benefits. For continuity of reporting it has been included under Criterion 2 – Productive Capacity of Forests.

No data or information available.

Volume of non-timber products

Indicator 2.1.b: Annual removal of timber and non-timber products from forest ecosystems compared with those estimated to be ecologically sustainable by tenure (Eden region)

Indicator 2.1.d: Annual removal of timber products and non-timber products from forest ecosystems by volume (Eden region)

2.1.e: Annual removal of non-timber forest products (e.g. berries, mushrooms, game, honey, wildflowers, tree ferns and possums) compared to the sustainable level (Southern region)

- These indicators are applicable to the Eden and Southern regions. However, data have been provided on the quantities of non-timber products harvested for all regions (including the UNE and LNE regions). Values of products harvested have been provided for the Eden region only.

Non-timber products, or forest products, are those other than timber supplied to sawmills or processing plants, extracted from forest areas, or forest activities. Firewood, seeds, gravel, bark and seedlings, and activities such as apiary, grazing and research are examples.

Reporting against this indicator was improved in 2002/2003 with the provision of data by the NPWS for the first time. This now allows the reporting of forest products taken from both the NPWS estate and State forests.

SFNSW provides the most comprehensive data on quantities of forest products taken from forest areas principally because a wide variety of forest products are taken from State forest and relatively few from the NPWS estate. Forest products taken from the NPWS estate are primarily honey and native plants removed under permit.

The NPWS report there were six beekeepers at 25 sites in the Eden region and 70 beekeepers at 330 sites in the Southern region. The number of hives or volume of honey obtained from these sites is not known because current apiary licence conditions neither specify the number of hives allowed per site nor require the licence holder to provide an annual report on the volume of honey removed from each site.

The NPWS also issued five permits for the scientific removal of native plants from Southern region. The illegal removal of non-timber products from the NPWS estate is also suspected, including tree seed, wildflower collection and native plant removal.

Forest products or activities permitted to be removed or carried out on State forests include grazing, firewood collection, removal of gravel, sand and rock, and apiculture. Overall there has been a decrease in the quantity of forest products taken from State forests in the UNE, LNE and Eden regions over the past four year. The largest decrease has been in the total number of apiary sites located in the UNE, LNE and Eden regions. The total number of sites in State forests in the three regions has fallen by 48% from 1 483 sites to 767 sites, mainly in the UNE region (falling from 1 084 sites to 382 sites between 1999/2000 and 2002/2003). Conversely, the number of sites on State forests in the Eden region has increased by 63% (103 sites) since 1999/2000.

The quantity of firewood taken from State forests in the UNE, LNE and Eden regions has decreased by 54% since 1999/2000. The largest decrease was, again, in the UNE region where volumes fell from 660 tonnes to 40 tonnes between 1999/2000 and 2002/2003. Similarly, volumes from the LNE region decreased from 4 579 tonnes to 1 760 tonnes in the same period. Only in the Eden region had an increase in volume recorded (26%).

Other non-timber products and forest uses have increased. For example, the area of State forest leased for grazing (including dedicated Crown lease and occupation permits) in the UNE, LNE and Eden regions has increased by 5% since 1999/2000 from 352 887 hectares to 370 389 hectares in 2002/2003. In the LNE and Eden regions the area of State forest where grazing is permitted has increased by 22% (25 589 ha) and 47% (4 547ha) respectively. Only in the UNE region has the area leased for grazing decreased (5% or 12 634 ha).

As required by Eden indicator 2.1.d, the value of non-timber products taken from State forests in 2002/2003 was \$184 913. The total value of products taken from State forests in the region has increased by about 40% between 1999/2000 and 2002/2003.

Quantities of non-timber products taken from State forests in the Southern region are provided for the first time in 2002/2003. In summary, 82 750 hectares of State forests were leased/available for grazing and 1 055 apiculture sites were located within State forests. A further 5 011 tonnes of firewood were taken, and 26 research permits issued. No gravel, sand or rock was quarried.

Plantations

MIG Indicator 2.1.f: Area and percent of plantation established meeting effective stocking one year after planting (UNE, LNE, Eden, Southern regions)

At 30 June 2003, the SFNSW hardwood and softwood plantation estate was about 345 000 hectares. This area included harvestable areas and those areas excluded from harvesting (such as rocky outcrops, native vegetation, wetlands and other natural features). Newly established areas totalled more than 5 600 hectares of hardwood and softwood plantation in the UNE, LNE, Eden and Southern regions. Of the total area established in 2002/2003, 1 594 hectares was new hardwood plantation in the UNE and LNE regions. No hardwood plantation was established in the Eden and Southern regions. Softwood plantations established by SFNSW during the year totalled 4 051 hectares across the UNE, LNE, Eden and Southern regions. Much of the new softwood plantation was established in the Southern region (3 060 ha).

There has been a decrease in the area of newly established SFNSW hardwood plantation over the past four years because RFA funding and the area planted was restricted to second rotation establishment. Investor funded plantings as well as competition for land created by real estate developers also contributed to the decrease in hardwood establishment.

Although the area of plantation established by SFNSW has fallen over the past few years, effective stocking rates²⁵ achieved for these areas have remained consistently high. Although data on effective stocking rates for hardwood plantations were not available for 2002/2003, previous years' data suggest an average 95% effective stocking rate is being achieved. SFNSW softwood plantations achieved a 100% effective stocking rate across the UNE, LNE and Eden regions this period, averaging a 97% effective stocking rate over the first four years of ESFM monitoring. The Southern region was the only region to achieve a less than 100% result; its soft plantations had a 76% effective stocking rate.

Regeneration

MIG Indicator 2.1.g: Area and percent of harvested area of native forest effectively regenerated (UNE, LNE, Eden, Southern regions)

SFNSW undertakes regeneration of harvested native forest to re-establish pre-harvest forest structure and species composition, specific to each forest type and locality and surveys annually to measure regeneration rates.

During 2002/2003, 33 regeneration surveys were carried out by SFNSW over an area of 5 096 hectares across the UNE, LNE, Eden and Southern regions. By region:

- five regeneration surveys were carried out over an area of 1 343 hectares in the UNE region;
- 17 regeneration surveys were carried out over an area of 3 237 hectares in the LNE region;
- seven regeneration surveys were carried out over an area of 267 hectares in the Eden region;
- four regeneration surveys were carried out over an area of 249 hectares in the Southern region.

Surveys undertaken in State forests in the north east regions were most successful, achieving an almost 100% effective regeneration rate. In the Eden and Southern regions, regeneration rates were not as successful, achieving 67% and 54% effective regeneration rates respectively.

For the NPWS estate in the UNE region, six hectares of previously harvested forest have been regenerated in Bongil Bongil National Park. The area was logged in February 2000 at various intensities and regeneration treatments. The rehabilitation work and analysis of regeneration is being investigated by a PhD candidate from the University of New England. Results of the research trial will determine preferred regeneration methods for the UNE and LNE regions.

In the Southern region, there are a number of previously harvested areas of native forest in the NPWS estate, including small-scale timber collection activities such as firewood collecting and felling trees to establish infrastructure on leasehold land. The majority are recent NPWS acquisitions of former SFNSW lands. One area of previously cleared native forest in the Southern region – the Jounama Pine Plantation in northern Kosciuszko National Park – is presently undergoing pine harvesting and is subject to active rehabilitation and natural regeneration.

²⁵ Effective stocking rate - the survival of trees one year after planting at a level that promotes a cost-effective return upon harvest

The transfer of lands under the NSW forest agreements and RFAs was largely finalised during 2002/2003 enabling the NPWS to assess the full extent of previously harvested and replanted lands in parks and reserves in the UNE and LNE regions and to prepare for their regeneration. An assessment is planned for 2003/2004.

Criterion 3 – Ecosystem health and vitality

Weeds, feral animals and disease

Indicator 3.1.a: Area and percent of forest affected by processes or agents that may change ecosystem health and vitality (narrative as interim) (UNE, LNE, Eden, Southern regions)

Indicator 3.1: List of biological factors influencing forest health and vitality, including weeds, feral animals, insects and disease (Eden region)

The control and eradication of negative agents (feral animals, weeds, disease) in public forests is crucial to maintain and improve biodiversity values and productive capacity. Both the NPWS and SFNSW manage a range of weeds, feral animals (including introduced predators) and disease, independently and in collaboration with other land managers.

Presently, data are not available on the area and percent of forest affected by negative agents. As an alternative, other data are provided such as expenditure and the area over which control efforts are undertaken.

Expenditure was only available from SFNSW. During 2002/2003, they spent over \$910 000 on the control of noxious/environmental weeds and feral animals over more than 1.68 million hectares of State forest in the UNE, LNE, Eden and Southern regions²⁶. The area treated was largely in the LNE region (670 820 ha) and the Southern region (936 640 ha).

SFNSW control efforts for noxious/environmental weeds were carried out for 12 species across 22 000 hectares of State forest in the UNE, LNE, Eden and Southern regions, at a cost of \$434 000. Much of the area treated was in the Southern region (16 240 ha treated at a cost of \$83 400). Key species treated included; lantana (*Lantana camera*), blackberry (*Rubis fruticosus* sp agg), scotch broom (*Cytisus* sp.) and other unspecified noxious weed species.

SFNSW control efforts for feral animals was much more extensive, carried out across about 1.65 million hectares of State forest in the UNE, LNE, Eden and Southern regions, at a cost of more than \$470 000. Control efforts targeted nine feral animal species, including foxes, wild dogs, pigs and rabbits (*Oryctolagus cuniculus*).

NPWS has not previously had a measure to evaluate success of pest management. However, the NPWS has developed the 'Pest Measure' to quantify the effectiveness of NPWS pest management. Initially, the Pest Measure was implemented at a few NPWS parks across the State but will be used in more parks in the future.

²⁶ An area may be treated for more than one agent.

Although comprehensive data across all regions were not available for this report, the NPWS has identified a number of priority weeds occurring on its estate in the Eden region, including bitou bush (*Chrysanthemoides monilifera*), willows (*Salix* spp.), serrated tussock (*Nassella trichotoma*), and more recently sea spurge (*Euphorbia paralias*) and pine wildlings. In the Southern region, priority weed species include bitou bush, willows, serrated tussock, lantana and kikuyu grass (*Pennisetum clandestinum*).

The NPWS aims to manage populations of feral animals to minimise their adverse impacts. However because eradication of introduced pest species is rarely possible, resources are directed to species or localities where the benefits of control are likely to be greatest. While distribution and abundance of vertebrate pests in reserves is generally known, mapping has not occurred (with the exception of feral goats). Problem areas or concentrations are managed as they are identified.

***Phytophthora cinnamomi* on the NPWS estate**

The NPWS is continuing to monitor the fungal pathogen *Phytophthora cinnamomi* (Cinnamon fungus) on the NPWS estate. The disease status of most reserves remains unclear and diagnosis based on symptoms in vegetation can be misleading. Comprehensive assessment requires expensive soil sampling. At this stage, the NPWS understands that the pathogen is probably widespread, but its spread remains either very slow or stable.

NPWS research in 2003 identified *P. cinnamomi* as causing substantial native plant dieback in a small area of Barrington Tops National Park in the LNE region. The NPWS has implemented a number of measures to contain the spread of the disease until more is known of its rate of dispersion across the plateau. These measures have included investigation of the extent of *P. cinnamomi* infection within the park, instigating wash down procedures for NPWS vehicles working across the Barrington Tops, requesting walkers to avoid the affected area of the park until soil testing is conducted, and a major public education campaign to ensure they do not walk *Phytophthora* across the Barrington Tops.

In the Eden region, the spread of *P. cinnamomi* remains either very slow or stable at four recorded sites. Where it is expected to occur near rare or uncommon plant communities in Mount Imlay National Park and South East Forest National Park, the NPWS has taken steps to monitor vegetation health and improve forest hygiene. *P. cinnamomi* is having a clear impact in *Eucalyptus sieberi* forest in the Yowaka and Mount Imlay areas. The susceptibility of some threatened plant species in the south east is being evaluated by the NPWS, as are options for control using the chemical phosphite. Preliminary trials using phosphite on *Xanthorrhoea australis* have commenced on Mount Imlay. Results are inconclusive.

P. cinnamomi has also been recorded in Monga National Park in the Southern region where NPWS closely monitors its progress. *P. cinnamomi* was also detected in a hazelnut orchard at Sassafras adjacent to Morton National Park in recent years. There is concern about its spreading onto nearby conservation reserves. A confirmed *P. cinnamomi* site is also known on the Beecroft Peninsula and is being investigated by the NPWS and the Royal Botanic Gardens, Sydney.

Disease, insect pests, fungi or other physical agents also impact on the biodiversity and productive capacity of forest areas. To manage this, SFNSW have incorporated into its plantation establishment program regular surveys to monitor the extent of key threatening biological agents and critical nutrient deficiencies in plantations. Data obtained through these surveys are used as a planning tool for eradication and control measures.

Surveys are carried out for three agents on hardwood plantations: herbivorous insects, stem borers and soil pathogens, and five agents on softwood plantations: *Dothistroma* (needle blight), *Sphaeropsis* (fungus), boron deficiency, phosphorous deficiency and possum damage.

Survey results for 2002/2003 identified herbivorous and sap-sucking insects as the most extensive agents affecting SFNSW hardwood plantation (post-1994 plantings). Although their extent increased to 7.5% of the hardwood plantation estate between 2001/2002 and 2002/2003, it remains well below the 25.8% recorded in 1999/2000.

The extent of soil pathogens affecting SFNSW hardwood plantation also increased in 2002/2003 to 4%, the highest level recorded since ESFM monitoring began. Before implementation of the NSW forest agreements in 1999, 1% of the hardwood plantation estate was affected by soil pathogens, decreasing to nil during the first three years of ESFM monitoring.

Dothistroma remains the main agent (of the five surveyed) affecting softwood plantations; 0.9% of the softwood estate is affected by *Dothistroma* but its extent has steadily decreased since 1999/2000, falling to its lowest level in three years. The area affected by boron deficiency has also decreased since 1999/2000, from 3.8% to 0.01% of the softwood estate in 2002/2003. All remaining softwood agents surveyed have also decreased in extent since 1999/2000. Each agent affected less than 1% of the softwood plantation estate in 2002/2003.

For additional details of SFNSW research initiatives into forest diseases refer to the State Forests of NSW Research and Development Division - Annual Report 2002/03 (at <http://www.forest.nsw.gov.au/research>).

Bell miner (*Manoria melanophrys*) associated dieback is a significant forest management issue in the catchments of the major rivers of the Northern Rivers and Upper North Coast regions of New South Wales including the Tweed, Richmond, and Clarence Rivers.

In response to increasing community and Government concern about the spread of Bell Miner dieback, the NPWS convened a workshop of representatives from government agencies, universities, landholders and conservation groups in November 2001. It led to the formation of the Bell Miner Associated Dieback Working Group comprising local landholders, Landcare Group/s affiliated with Richmond Landcare Inc., North Coast Environment Council, North East Forest Alliance and State government land management agencies. The Working Group is developing a Bell Miner Associated Dieback Strategy, to be completed in 2004.

Fire

Indicator 3.2: Impact of fire on forest-related values (Eden region)

- This is an Eden region indicator. For continuity of reporting, all regions are reported here.

The size, intensity and frequency of fire events are monitored across public forest areas to determine the impact of fire on biodiversity and economic values and improve emergency and land management practices.

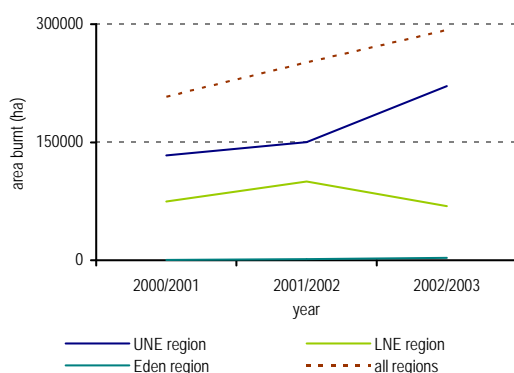
Fire events may be a bushfire or a prescribed burn. In general, prescribed burns have lower intensity than bushfires and occur during the cooler months of the year. The exception is backburning conducted to control the spread of bushfires.

Data are for the NPWS estate and State forests only.

Bushfire

New South Wales has experienced severe fire seasons over the past few years. In 2002/2003 over 1 million hectares of the NPWS estate and State forest were burnt as a result of bushfire²⁷. Much of the area burnt was forest in the Southern region (751 595 ha). Less than 300 000 hectares of forest were burnt in the NPWS estate and State forests in the UNE, LNE and Eden regions.

As shown in **Figure 3-B** the total area of the NPWS estate and State forest burnt in the UNE, LNE and Eden regions has increased since 2000/2001²⁸. By region, the extent of fire in the UNE and Eden regions has gradually increased, while the area affected by bushfire in the LNE region has decreased. The largest increase in the extent of fire has been in the Eden region. The area of the NPWS estate and State forest burnt in the region has increased from less than 300 hectares to over 2 700 hectares between 2000/2001 and 2002/2003.



Does not include 751 595 ha burnt in the Southern region

1999/2000 data were incomplete, therefore not included

Source: SFNSW and NPWS data

Figure 3-B: Area affected by wildfire – all regions*

²⁷ Does not include any area burnt within the NPWS estate in its Central Directorate (Hunter region), that falls partly within the LNE region.

²⁸ Discussion does not include 1999/2000 fire extent as incomplete data were available at the time.

During the peak of the 2002/2003 bushfires, 1 350 NPWS personnel were involved in the fire suppression effort across the State, both on- and off-park. Their contributions ranged from statewide coordination at the Rural Fire Service Headquarters, to acting as Incident Controllers of fire suppression operations. The NPWS also utilised its highly trained and experienced Remote Area Fire Teams across eastern New South Wales, the Great Divide and the Snowy Mountains. The NPWS has improved its capacity to fight fires with more than 900 trained firefighters, over 450 staff trained in incident management and a full range of vehicles, plant, equipment and aircraft for fire management operations, particularly in remote areas.

SFNSW also provided significant resources to fire fighting but details are not available. SFNSW maintain a lightning strike detection system, numerous fire towers to detect fire outbreaks and an extensive network of road and fire trails for rapid access to fires.

Prescribed burning

Prescribed burning, hazard reduction burning and fuel reduction burning are virtually interchangeable terms, all relating to the controlled use of fire to reduce fuels (flammable material) available to subsequent fires. Careful planning for prescribed burns includes predicting fire behaviour using rainfall or drought history, weather for the day of the burn (temperature, humidity, wind speed and direction), vegetation, fuel characteristics and topography.

Prescribed burns were undertaken across about 37 670 hectares of the NPWS estate and State forest in the UNE, LNE, Eden and Southern regions during the year, about 13 670 hectares on the NPWS estate²⁹ and the remaining 19 000 hectares on State forests.

SFNSW also conducted post-log burns and area establishment burns as part of its fire management program. Post-log burns³⁰ were conducted over 24 240 hectares of State forest; 2 850 hectares burnt in the UNE region, 14 274 hectares in the LNE region, 5 103 hectares burnt in the Eden region, and 2 015 hectares burnt in the Southern region. Area establishment burns were undertaken across more than 3 000 hectares of SFNSW plantation estate.

SFNSW is studying the combined effects of timber harvesting and fire on the population dynamics of forest trees and understorey plant species to better understand fuel build-up following hazard reduction burning and regeneration characteristics following logging and post-logging burning. Data will improve hazard reduction burning regimes in dry coastal eucalypt forests of southern New South Wales.

²⁹ Does not include areas of the national park estate within the NPWS Central Directorate (Hunter region).

³⁰ Post-log burns - undertaken to promote regeneration and reduce fire hazard that may be caused by residues (tree debris) left in an area after harvesting.

Criterion 4 – Soil and water resources

Roads and crossings

Indicator 4.1.a: Area and percent of forest land covered by Comprehensive Road Management Plans, which include an assessment of the extent of existing road infrastructure, processes for ongoing improvement, targets and milestones (UNE, LNE, Southern regions)

Indicator 4.1: Road density by category and catchment, and stream crossing density by catchment, for the total forest agreement area, including forest and non-forest areas. Calculation of an ecologically sustainable road index and ecologically sustainable crossing index (Eden region)

The total length of roads and trails in State forests in the UNE, LNE, Eden and Southern regions was more than 24 500 kilometres. Most of the roads identified were classified as harvesting, link and boundary roads, or fire/service trails. At 30 June 2003, total road length in State forests by region was:

- 7 234 kilometres in the UNE region;
- 2 635 kilometres in the LNE region;
- 2 255 kilometres in the Eden region;
- 12 423 kilometres in the Southern region.

Total road length in State forests in the LNE region has increased by about 1 250 kilometres, mainly due to an increase in fire/service trails. In the Eden region a reduction in the length of fire/service trails has reduced total road length by about 1 050 kilometres. Total road length in State forests in the UNE region has remained unchanged.

SFNSW road network plans have been implemented in more than 869 700 hectares across the UNE, LNE and Eden regions. By region, 469 755 hectares are covered by one strategic road network plan in the UNE region, 20 plans covering 236 015 hectares in the LNE region and one plan in the Eden region covering 163 952 hectares. SFNSW implemented one plan in the Southern region, but its area is unknown.

On the NPWS estate, almost 16 000 kilometres of roads and trails occurred in the UNE and LNE regions, with dry weather trails the main road type in the regions (5 029 km). About 1 450 kilometres of roads and trails were closed for rehabilitation and 768 kilometres of roads and trails were closed but could be re-opened for fire advantage. A more complete picture of the status of roads in UNE and LNE region will be available following classification of the 1 448 kilometres (UNE region) and 675 kilometres (LNE region) of currently unclassified roads.

The NPWS continued its ongoing program of bridge repair and replacement and sewerage improvements throughout 2002/2003, including twelve bridge projects in the UNE region costing \$190 000, and two projects in the LNE region costing \$110 000. The upgraded roads and fire trails improve public safety, environmental outcomes, occupational health and safety, and fire access.

The large recurrent expenditure in LNE region during 2002/2003 (\$845 000) included road resealing works at three major visitor areas at a cost of \$450 000, including Myall Lakes Road in Myall Lakes National Park (19 km) and internal access roads in Arakoon SCA and Glenrock SCA.

For the Eden region 3 851 kilometres of roads and management trails were managed or co-managed by the NPWS in parks or reserves and a further 98 kilometres of walking trails maintained. Road

maintenance (mainly surface re-building) was undertaken on 590 kilometres of roads. The difference in measurements for the Eden region in 2001/2002 to this year's are the result of improved digital mapping of park management trails.

NPWS has provided less data on road length and classification for the Southern region but will provide more accurate data for future reports. Available data for the Southern region identified 5 545 kilometres of roads and management trails and 41 kilometres of walking trails being maintained by NPWS. The classification of road categories for the data provided for this indicator was coarse. Each NPWS administrative area held slightly varying categories of road types at varying scales.

Soil erosion

MIG Indicator 4.1.a (interim): Area and percent of forest land systematically assessed for soil erosion hazard, and for which site-varying scientifically-based measures to protect soil erosion and water values are implemented (UNE, LNE, Eden, Southern regions)

SFNSW routinely undertakes soil surveys to identify soil erosion risk before establishing roads in areas scheduled for harvesting. During 2002/2003, SFNSW conducted soil surveys over a gross native forest area of 58 293 hectares (net harvest area of 27 835 ha) in the UNE, LNE, Eden and Southern regions.

Of the total gross area of SFNSW native forest assessed during the year, 16 395 hectares was within the UNE region (net harvest area of 7 822 ha). A further 1 554 hectares (net harvest area) of softwood plantation were also assessed in the region. No roads were assessed in harvest plans for the region.

For the LNE region, a gross SFNSW native forest area of 16 330 hectares was assessed (net harvest area of 11 331 ha). A net harvest area of 48 hectares of softwood plantation was also assessed for soil erosion. No roads were assessed in harvest plans for the region.

For the Eden region, a gross SFNSW native forest harvest area of 12 777 hectares was assessed (net harvest area of 4 254 ha). A further 5 457 hectares (net harvest area) of softwood plantation were also assessed for soil erosion. A further 287 kilometres of roads within native forests and 336 kilometres of roads within softwood plantations were assessed in harvest plans for the region.

For the Southern region, a gross SFNSW native forest harvest area of 12 971 hectares was assessed (net harvest area of 4 428 ha). A further 6 350 hectares (net harvest area) of softwood plantation were also assessed. No roads were assessed in harvest plans for the region.

For the NPWS estate, data on soil erosion were only available for the Eden and Southern regions. Estimates of the area affected by soil erosion in the Eden region are based on calculations of total road surface area and the area of recreation facilities. This involves multiplying the average width of road or trail surfaces by the total length. NPWS estimates that 900 hectares of the estate in the region are affected by erosion and that 245 hectares of the estate have been successfully treated.

NPWS data on erosion for the Southern region were provided by only some NPWS management areas so data are not as comprehensive as that for other regions. More accurate data will be available for 2003/2004. However, the NPWS estimates that 4 568 960m² of its estate in the Southern region is affected by erosion, with 45 260m² having an adverse impact on heritage values. Works to reduce the area of the estate affected by soil erosion has been carried out over about 489 760m² with partial success. Treatments were successful in the NPWS Snowy Mountain Region (4 000m²) and the NPWS

Far South Coast Region (482 000m²). In the NPWS South Coast Region treatment was partially successful (3 760m²) with minimal impact on instream sedimentation and heath frog (*Litoria littlejohni*) habitat.

NPWS' erosion control works included the reconstruction of the Mount Warning (Wollumbin) summit walking track (LNE region) and repairing high priority sections of the track, including the construction of handrails and boardwalks. The works were planned and undertaken in consultation with members of the Mount Warning (Wollumbin) National Park Aboriginal Steering Group with funding from the Natural Heritage Trust's World Heritage Management and Upkeep Program.

The NPWS continued conservation planning, assessment and monitoring for the Pacific Highway Upgrade Program being undertaken by the Roads and Traffic Authority between Newcastle and the Queensland border.

In the Eden and Southern regions, 64 NPWS works programs targeted a reduction in sedimentation or an improvement in water quality. Works included the upgrade of amenities and services to reduce the area of bare soil, a track re-route and a walking track upgrade to minimise sedimentation and soil loss. Capital works programs in the Eden region which aimed to reduce sedimentation and improve water quality included upgrading Bittangabee Camping and Day-use areas and constructing two replacement concrete bridges and eight new box culverts in South East Forest National Park.

Criterion 5 - Maintenance of forest contribution to global carbon cycles

Biomass and carbon

MIG Indicator 5.1.a: Total forest ecosystem biomass and carbon pool, and if appropriate, by forest type, age class, and successional stages (UNE, LNE, Eden Southern regions)

Estimates of the amount of carbon sequestered across the public forest estate were not available. However, for the second year SFNSW used an improved method for calculating sequestered carbon in its planted forest estate. This method used only net stocked areas for calculating sequestered carbon. Environmental exclusions and retained native vegetation were not incorporated into calculations, unlike in previous years. This means that this year's estimation of the amount of sequestered carbon is more accurate.

SFNSW calculated 1 306 950 tonnes of carbon were sequestered in a net hardwood plantation area of 61 200 hectares in the UNE, LNE, Eden and Southern regions. By region:

- 464 288 tonnes of carbon were sequestered in a net hardwood plantation area of 21 741 hectares in the UNE region;
- 121 726 tonnes of carbon were sequestered in a net hardwood plantation area of 5 700 hectares in the LNE region;
- 720 937 tonnes of carbon were sequestered in a net hardwood plantation area of 33 759 hectares in the Southern region;
- no carbon was sequestered in hardwood plantation in the Eden region.

For softwood plantations, 2 551 480 tonnes of carbon were calculated as sequestered in a net stocked area of 146 679 hectares in the UNE, LNE, Eden and Southern regions. By region:

- 254 749 tonnes of carbon were sequestered in a net softwood plantation area of 14 645 hectares in the UNE region;
- 169 479 tonnes of carbon were sequestered in a net softwood plantation area of 9 743 hectares in the LNE region;
- 534 791 tonnes of carbon were sequestered a net softwood plantation area of 30 744 hectares in the Eden region;
- 1 592 456 tonnes of carbon were sequestered in a net hardwood plantation area of 91 547 hectares in the Southern region.

NPWS does not have the capacity to report on this indicator.

Global carbon budget

MIG Indicator 5.1.c: Contribution of forest products to the global carbon budget (UNE, LNE, Eden, Southern regions)

Although no data were available for this indicator for 2002/2003, the NPWS continued a project to identify potential reforestation areas on NPWS managed lands throughout New South Wales. Further details on this project are provided under 'carbon sequestration opportunities' in Chapter 2. of this document.

SFNSW has had a key role in developing strategies to address the impacts of greenhouse gas emissions and actions to offset them. The two main strategies were:

- providing investment opportunities for companies to use SFNSW management services to establish new plantations on cleared land from 1 January 1990 onwards (consistent with Article 3.3 of the Kyoto Protocol);
- developing carbon accounting systems for these plantations.

Investment in new plantations has established over 4 000 hectares with a final target area between 20 000 and 55 000 hectares, at a cost to investors of up to \$720 million over the life of the plantations.

For information on research initiatives into carbon in forests/carbon accounting refer to State Forests of NSW Research and Development Division – Annual Report 2002/03 (at <http://www.forest.nsw.gov.au/research>)

Criterion 6 - Socio-economic benefits

Visitation

MIG Indicator 6.2.c: Number of visits per annum (UNE, LNE, Eden, Southern regions)

Comprehensive data on visitor numbers to the NPWS estate and State forests in the forest agreement regions are presently unavailable. However, data on the number of visits to the NPWS estate was greatly improved during 2002/2003 following the installation of digital traffic counters at parks and reserves in the north east regions. In the absence of data for the full financial year for some sites, data have been extrapolated to provide an estimate of annual totals.

More than 2.48 million visits were made to national parks in the north east regions during 2002/2003, almost 1.65 million visits to national parks in the UNE region and more than 834 000 to national parks in the LNE region.

There may be inaccuracies in the raw data from occasional faults in digital counters and in the counting of movements by NPWS staff or contractors and from ignoring seasonal differences when extrapolating from a limited period to an annual estimate.

In the Southern region an estimated 2 330 655 visits were made to the NPWS estate during 2002/2003. Data were obtained from varying data sources, including the NPWS Southern Directorate recreation facilities GIS layer, traffic counters, tickets sold at Yarrangobilly Caves in northern Kosciuszko National Park, bookings at the Currango Homestead Complex, also in Kosciuszko National Park, and the number of visits to NPWS visitor centres.

Data on the number of visits recorded in the NPWS estate in the Eden region were not available for 2002/2003. However, the NPWS Visitor Data System (VDS) was trialled in the region and a strategy prepared to install it in 2003/2004.

Further improvements in collecting data will be made in the future once the VDS is endorsed as the statewide computer database for storage and analysis of visitor information. The VDS will produce more accurate data (as well as additional details such as date, time and direction of travel) to assist with park management and planning. More than 85 NPWS staff were trained to use it and 40 trained in the traffic counter module during the year.

No data on visits made to State forests were available for 2002/2003.

Recreation/tourism facilities

Indicator 6.3: Availability and usage of recreation/tourism facilities (Eden region)

- Data has been provided for all regions.

In 2001/2002 reporting against this indicator was improved by data on recreation and tourism facilities available on the NPWS estate such as picnic and camping localities containing parking, toilets, fire places and access to beaches, lookouts and other natural features.

There were the same numbers of facilities this year as in the previous year. Visitor facilities situated on the NPWS estate by region remained as follows:

- 157 sites in the UNE region;
- 201 sites in the LNE region;
- 73 sites in the Eden region.

NPWS are developing reporting proformas to improve data collation for this indicator, particularly for Southern region where there has not been a recent comprehensive audit of facilities.

Data on recreation and tourism facilities on State forests in the LNE, UNE and Eden regions have been available since 1999/2000. Information for the Southern region will also be reported for the first time. Facilities recorded include picnic and camping areas, forest walks and lookouts. At 30 June 2003 facilities occurring in State forests included:

- 15 sites in the UNE region;
- 99 sites in the LNE region;
- 16 sites in the Eden region;
- 45 sites in the Southern region.

Early trends indicate a decrease since 1999/2000 in facilities in State forests across the UNE, LNE and Eden regions. However, by region, varying trends have been exhibited. The number of sites situated on State forests in the north east regions decreased between 1999/2000 and 2000/2001 but has remained stable since. There has been no change in the number of sites in the Eden region.

SFNSW also issue permits for a range of organised recreational and educational activities such as triathlons, car and bike rallies, orienteering, four-wheel driving, ecotourism, horse and trail rides, educational camps and training exercises. Over the past 12 months there was an 8% decrease in the number of permits issued across the UNE, LNE and Eden regions, for recreation or education activities. However the number of permits issued between 2001/2002 and 2002/2003 increased for the LNE and Eden regions by 16% and 73% respectively, and decreased by about 50% in the UNE region. SFNSW issued 100 permits in the Southern region in 2002/2003, but no trends can be identified at this stage.

Employment

MIG Indicator 6.5.a: Direct and indirect employment in the forest sector and forest sector employment as a proportion/percentage of total employment (UNE, LNE, Eden, Southern regions)

Indicator 6.4: Employment numbers by type across all forest users in the Eden region

The level of employment derived from forests (including conservation and forestry) is just as important a measure of the value of these areas to the regional economy as tourism. At present data are only available for land managed by NPWS and SFNSW.

Since 2000/2001³¹, total employment by the NPWS (direct) and SFNSW (direct and indirect) has remained stable in the UNE, LNE and Eden regions, showing only a slight increase of about 1%. By

³¹ Data for 1999/2000 has not been included as an accounting error was made in SFNSW data and incomplete data were available at the time from the NPWS.

region, the north east regions have experienced the greatest variation in NPWS and SFNSW employment. Employment in the UNE region has shown a 5% decrease since 2000/2001, countered by a 7% increase in the LNE region. No change in total employment numbers have been recorded for the Eden region. Total NPWS and SFNSW employment in the Southern region was 2 565 equivalent full time (EFT) employees in this first year of monitoring.

Direct employment by the NPWS was 775 EFT employees in the UNE, LNE, Eden and Southern regions at 30 June 2003. Total direct and indirect employment by SFNSW across the regions was 6 164 EFT employees.

Direct employment by the NPWS was provided across a broad range of categories, including senior management, technical and legal officers, rangers, research scientists and tradespersons. By region, direct employment by the NPWS during 2002/2003 was:

- 176 EFT employees in the UNE region;
- 223 EFT employees in the LNE region;
- 58 EFT employees in the Eden region;
- 318 EFT employees in the Southern region.

NPWS recurrent funding associated with the NSW forest agreements supported 40.5 EFT in UNE region (23% of total) and 77.5 EFT in the LNE region (35% of total), a decrease of 0.9 EFT in the UNE region and an increase of 15.9 EFT in the LNE region

Direct employment in the Eden region has remained stable over the past three years (58 EFT). The 40 permanent positions created in the NPWS since the South East Forest Reform program began in 1994 also remain unchanged. This included 4.5 Aboriginal positions.

NPWS employment figures do not include temporary, casual or seasonal positions, such as the three positions filled under the Summer *Discovery* Ranger program.

Direct and indirect employment by SFNSW has remained relatively stable across the UNE, LNE and Eden regions since 2000/2001³². Direct employment data were not available, but is likely to show an annual variation of less than 10%. Actual direct and indirect employment by SFNSW at 30 June 2003:

- 1 546 EFT employees in the UNE region;
- 1 509 EFT employees in the LNE region;
- 447 EFT employees in the Eden region;
- 2 662 EFT employees in the Southern region.

SFNSW employees perform a range of activities, including the growing and managing of forests, primary processing, apiary, grazing and ecotourism. The largest employment category across the four regions is primary processing which includes processing undertaken at a site where the input is raw material supplied by SFNSW. This category accounts for 68% of total direct and indirect employment across the four regions. The second largest employment category is harvest and haulage, which accounts for 14% of total direct and indirect employment by SFNSW.

³² Data for 1999/2000 has not been included here as employment figures for the UNE region were incorrect due to an accounting error and therefore does not accurately reflect change.

Gross income

Indicator 6.5: Gross income index related to forests (Eden region)

No data or information available.

Places of cultural significance

Indicator 6.4.c: Change in condition and number of recorded places, artefacts, sites, buildings or other structures (UNE, LNE regions)

Indicator 6.6: Change in condition and number of recorded places, artefacts, sites, buildings or other structures (Eden region)

Indicator 6.4.c(i): Change in condition and number of Aboriginal cultural heritage features within the forest estate including recorded places, artefacts, sites, or other structures (Southern region)

Indicator 6.4.c(ii): Change in condition and number of historic heritage features within the forest estate including recorded places, artefacts, sites, buildings or other structures (Southern region)

Cultural heritage includes both Aboriginal and non-indigenous heritage. Monitoring the number of heritage sites on public forests helps evaluate management practices to ensure the social and cultural values of forests are maintained and/or enhanced. However, the social, cultural and aesthetic values people place on forests is difficult to measure. Quantitative data, such as the number of sites, can only provide an indicative measurement.

Aboriginal cultural heritage

In 2001/2002, the NPWS implemented the Aboriginal Heritage Information Management System (AHIMS). The system not only improved the agency's capacity to monitor and report cultural heritage information, but during its development prompted increased survey and research activity which increased the number of sites identified. The system also improved the quality of data available about Aboriginal sites (referred to in the AHIMS as 'Aboriginal objects'), such as the number of sites, number of threatening (processes) conditions identified and thereafter removed, and number of sites subject to Aboriginal heritage permits. This in turn provides better data for reporting purposes and better information for management.

At 30 June 2003, 4 620 sites of Aboriginal significance (or Aboriginal objects) were recorded on the NPWS estate across the UNE, LNE, Eden and Southern regions. AHMIS data identified a further 12 050 Aboriginal objects occurring outside the NPWS estate, including 2 370 sites located on State forests.

There was a significant increase in the number of sites recorded in State forests in the UNE region during 2002/2003 (193 sites) because SFNSW Northern Softwood Plantations Region used the Heritage Register, and in the Southern region due to the supply of data from the NPWS (actual increase in sites was not available). A further 55 sites in the LNE region and 34 sites in the Eden region were newly recorded.

Historic (non-indigenous) cultural heritage

Improvements in the recording of information on historic (non-indigenous) heritage sites were achieved in 2001/2002 following the implementation of the Historic Heritage Information Management System (HHIMS) by the NPWS. The system improves the recording of culturally significant sites and changes in site condition.

A total of 4 998 sites were identified as occurring on the NPWS estate and State forests in the UNE, LNE, Eden and Southern regions. Most were NPWS sites (4 481 sites), with the remaining 517 sites in State forests.

The number of historic heritage items and places recorded on the NPWS estate has increased by over 2 800 sites since 2001/2002 due to new records added to the HHIMS and the inclusion of the Southern region in the total figure. Data on the condition of sites are currently unavailable. The number of historic sites located on State forests has remained relatively unchanged since ESFM monitoring began.

The total area of State forest zoned primarily for heritage value across the regions was 1 408 hectares, with a further 21 884 hectares zoned primarily for aesthetic value. Most of these areas are located within the Eden and Southern regions.

The introduction of the HHIMS, like the AHIMS, will enable NPWS to report in more detail on historic heritage features; they will be able to break down information on all heritage items into details of their condition and management actions taken. The HHIMS has recently introduced functionality to record the overall condition for heritage items and management actions against these heritage items. This information will be available to include in this report in the near future.

Criterion 7 - Legal, institutional and economic frameworks

Legal framework

MIG Indicator 7.1 (narrative): Extent to which the legal framework (laws, regulations, guidelines) supports the conservation and sustainable management of forests (UNE, LNE, Eden, Southern regions)

Legislation, policy and guidelines

The legal framework for forests and forest management is extensive. It includes legislation, amendments to existing legislation, policies, guidelines and codes of practice. Because the legal framework is constantly changing the documents reported here are current for 2002/2003 only.

Reporting against this indicator is statewide level and when any policy or other documents is specific to a region, it is indicated. The following discussion includes only information on the legal framework for forests and forest management not previously reported.

Plantations and Reafforestation Act 1999

The *Plantations and Reafforestation Act 1999* and Plantations and Reafforestation (Code) Regulation 2001 commenced in December 2001, replacing the *Timber Plantation (Harvest Guarantee) Act 1995*. Details are provided in Chapter 2 – Private native forestry and plantations.

National Parks and Wildlife Amendment Act 2001

The *National Parks and Wildlife Amendment Act 2001* was assented to in December 2001 and has been proclaimed in stages beginning July 2002. The most recent proclamation was April 2003.

The *National Parks and Wildlife Amendment Act* established the Aboriginal Cultural Heritage Advisory Committee (which replaced an interim committee) in October 2002, including the functions of the committee and its membership. The Act requires that two members for the Aboriginal Cultural Heritage Advisory Committee also be members of the National Parks and Wildlife Advisory Council. The regional advisory committees are required by the Act to include at least two Aboriginal people.

The three existing National Parks and Wildlife regulations on administration, land management and fauna protection were reviewed as required under the *Subordinate Legislation Act 1989* and the National Parks and Wildlife Regulation 2002 was made on 30 August 2002.

Threatened Species Conservation Amendment Bill 2002

The Threatened Species Conservation Amendment Bill 2002 was assented to in October 2002, and proclaimed, in part, on 31 January 2003. It requires the Director-General of the National Parks and Wildlife Service to consider any special knowledge or interest that indigenous people may have in the preparation of a threat abatement plan or a recovery plan for species, population or ecological communities.

Management policies, guidelines and codes of practice

The new NPWS Policy Guide provides a quality control mechanism for developing and reviewing policy. It outlines the process for reviewing a policy, including monitoring its effectiveness and deciding on a refinement or amendment. Each policy has a review date or it should be formally reviewed, at a minimum, every three years.

The NPWS Executive, or a Director, must endorse corporate policies which are listed on the intranet. A NPWS corporate policy is any level of NPWS policy (strategic, operational and procedural) which articulates a position, direction or attitude of the NPWS as an entity. The scope or application may be localised (e.g. apply to one park or position) but if the policy represents the NPWS as an entity, then it is a corporate policy.

A list of NPWS policy documents is published each June and December in the *NSW Government Gazette* and on the NPWS website (<http://www.nationalparks.nsw.gov.au>) under the NPWS Summary of Affairs. These include corporate documents, scientific policies and manuals, personnel guidelines, field policies and procedures and are available by arrangement or purchase.

SFNSW has a suite of policies to guide sustainable forest management practices. SFNSW has also developed a number of Forest Practice Codes which describe non site specific terms and conditions for managing forestry activities including codes for establishment, maintenance and timber harvesting in SFNSW plantations, timber harvesting in native forests and forest roads and fire trails.

Policy documents may be viewed on SFNSW website (<http://www.forests.nsw.gov.au>).

Legal framework and Aboriginal interests

The NPWS acknowledges that the indigenous people of Australia are the original custodians of the lands and waters, animals and plants of New South Wales and its many and varied landscapes. The NPWS recognises this commitment in all dealings with Aboriginal communities, in future heritage and

conservation initiatives and through greater involvement of Aboriginal communities in NPWS land management.

During 2002/2003, the NPWS established a repatriation program to return to Aboriginal communities a large collection of Aboriginal ancestral remains and an uncatalogued collection of other Aboriginal cultural material which includes objects and information held by the NPWS. Over 40 sets of Aboriginal ancestral remains were returned to five New South Wales Aboriginal communities: the La Perouse, Brewarrina, Tumut-Brungle and Wagonga communities and the Worimi Nation. The NPWS also provided three of these communities with dedicated areas for re-burial.

The La Perouse Aboriginal community established four 'resting places' for the re-burial of over 30 ancestral remains. An Aboriginal Place nomination over one of these areas was sought by the La Perouse community and declared in late 2002 by the Minister for the Environment.

A program to catalogue material held by the NPWS has listed over 1 000 Aboriginal stone objects and more than 30 boxes containing organic material including shell, animal bone and soil is to be completed. The Repatriation Program will assess the potential for this material to be repatriated during 2003/2004.

SFNSW also identified nearly 5 000 hectares of State forest with predominant Aboriginal management across the LNE, Eden and Southern regions. Much of this area is located in State forests in the Eden region (3 987 ha). In the LNE region three co-management agreements between SFNSW and Aboriginal communities were also reported, covering over 2 000 hectares at Warree Warren and Keepa Keepa. A further two co-management agreements were still being negotiated between SFNSW and the Eden Local Aboriginal Land Councils at Wallagaraugh and Letts Mountain flora reserves in the Eden region.

Public participation

There were no NPWS updates for this indicator since the 2001/2002 report.

SFNSW provided no information for this report.

Institutional framework

MIG Indicator 7.2 (narrative): Extent to which the institutional framework supports the conservation and sustainable management of forests (UNE, LNE, Eden, Southern regions)

Public education and awareness

Because better public understanding and awareness of ESFM is central to its achievements, the NPWS and SFNSW continue to run corporate education programs and activities about ESFM.

The *Discovery* program is NPWS' key initiative to promote public participation and increase awareness of biodiversity and cultural values. The program uses interpretation techniques to bring natural and cultural heritage themes alive. It employs appropriate local people as coordinators and rangers to deliver programs in national parks and reserves, and through outreach activities in locations such as schools.

The NPWS implemented its 'Eco Ranger *Discovery*' program in key NPWS regions during the year. The program, partly sponsored by CSR through the Foundation for National Parks and Wildlife, encourages year 7 and 8 science students to discover and explore biodiversity using a hands-on introductory biodiversity survey. Another program, Envirothon is an environmental interpretation competition for Year 11 students in New South Wales public schools run in partnership with the Department of Education and Training, with prizes sponsored by Snowgum, the outdoor equipment company. More than 250 students from across the State competed in regional competitions and over 60 students and staff engaged in the final of the competition in Sydney.

A new website launched in May 2003 (<http://www.nationalparks.nsw.gov.au>) makes NPWS information more accessible. It contains more than 5 000 web pages and 1 400 PDF documents and has many new features and improvements, such as a new parks and reserves database containing extensive visitor information. Visitors have online access to park details, climate, visitor facilities, natural heritage, cultural heritage and *Discovery* tours, and can find an expanded and improved cultural heritage section with more integrated information on Aboriginal and non-Aboriginal heritage. Use of the NPWS website continued to increase in 2002/2003, with over 1.2 million visits (up 48% on the previous year) and over 4.1 million pages viewed.

A new website for the *NSW Biodiversity Strategy* was also launched in May. The site is managed by the NPWS (<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/SBS+Home>).

Public participation and education opportunities are also an important part of SFNSW business, with significant investment made into developing and running a wide range of activities. The majority of SFNSW' community programs are held at Cumberland State Forest in Sydney. Over the past four years, an average of over 9 500 people a year have participated in Cumberland programs. The highest participation rates are in upper primary school level activities, with over 3 000 participants in 2002/2003. School holiday activities are also well patronised, with over 900 school children participating.

SFNSW is also continuing to run educational field trips for teachers, environmental educators and university lecturers in State forests near Coffs Harbour, Newcastle and Bathurst. The trips, free to New South Wales teachers and educators, increase knowledge and awareness of forest management. Participants see how native forests are managed for forest values, including biodiversity, timber production, cultural heritage and recreation.

Refer also to Chapter 2 of this document – Community participation, education and awareness.

Staff training and development

Staff training and development is another important component of sustainable forest management. All agencies have a corporate program of staff training and development.

For the NPWS, a key objective is to attract, develop and retain a skilled workforce aligned to corporate values and directions. This year has seen the start of the new Performance and Development system for all NPWS staff. Its staged implementation began with training for the NPWS Executive and all senior managers. Workshops are now being conducted for middle managers and all NPWS staff will have received training in the new system by mid 2004.

Implementation is occurring on a NPWS' Directorate basis. It starts with managers and cascading through to all staff, with managers playing an active role in training their own staff. Concurrent training for staff ensures that individuals have the skills and knowledge to participate in the process with their managers.

In July 2002 the NPWS Executive endorsed the Aboriginal Employment and Development Strategy, which aims to create new opportunities for Aboriginal people, provide career development and training for existing Aboriginal staff and attract new Aboriginal staff through initiatives such as traineeships. Under the Aboriginal Cadet Ranger program, a University of Wollongong student (Bachelor of Environmental Science), is spending her holidays working for the NPWS, gaining hands-on experience and conservation management techniques.

In 2002/2003, SFNSW spent over \$2.4 million on human resource management including policy, recruitment and general administration of staff.

Over 1 800 training and development courses were undertaken by SFNSW staff and contractors, at a cost of over \$2.6 million. Courses were primarily in occupational health and safety, first aid, recognition and protection of environment, cultural heritage values and soil and water training and were part of the Forest Harvesting Operator course for forest workers. In addition 15 staff from varying levels were trained in environmental management auditing (a 5 day course) to assist SFNSW in its goal to roll out its Environmental Management Systems in 2005/06.

In 2002/2003, 623 staff received training in 55 courses, predominantly in the areas of fire fighting and accredited courses in occupational health and safety and operational skills. There were training programs developed for safe driving and a fire fighter fitness program and they will be undertaken by the 850 permanent staff.

Enforce laws, regulation and guidelines

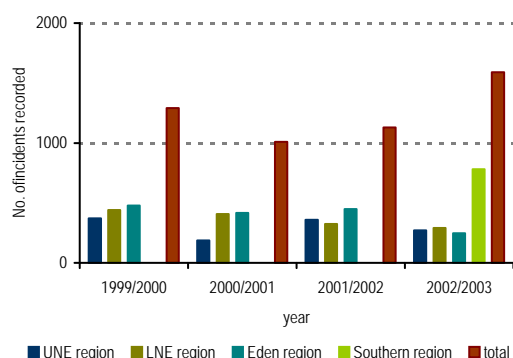
Where a region has a NSW forest agreement in place timber harvesting activities on State forests and other Crown-timber land must comply with the IFOA. At 30 June 2003, four IFOAs were in place in New South Wales covering the UNE, LNE, Eden and Southern regions. Compliance by SFNSW with the terms and conditions of the IFOAs is provided in Chapter 4 of this document.

In addition to audits of compliance undertaken by regulatory agencies (the NPWS, EPA, NSW Fisheries and PlanningNSW), SFNSW also conduct regular internal compliance monitoring in each region for soil and water, flora and fauna, fish habitat and passage and other issues such as safety.

During 2002/2003, SFNSW completed about 255 000 compliance checks in the UNE, LNE, Eden and Southern regions and recorded 1 590 incidents of non-compliance.

The number of non-compliance incidents recorded by SFNSW supervision has decreased by 37% since 1999/2000 in the UNE, LNE and Eden regions. In these regions compliance has either decreased or remained stable over the last four years. No trends in non-compliance in the Southern region are available due to the recent implementation of the IFOA (May 2002).

The total number of non-compliance incidents recorded by SFNSW are illustrated in **Figure 3-C**. The large increase in the total number of incidents in 2002/2003 is due to the inclusion of the Southern region.



Source: SFNSW data

Figure 3-C: Results of SFNSW internal compliance monitoring 1999/2000 – 2002/2003

The main area of non-compliance in 2002/2003, recorded by SFNSW, related to soil erosion and water quality, where a total of 983 incidents were recorded. Of these 470 were recorded in the Southern region.

By region, the number of non-compliance incidents recorded by SFNSW was as follows:

- 270 incidents of non-compliance were recorded in the UNE region, a non-compliance rate of less than 0.4%;
- 291 incidents of non-compliance were recorded in the LNE region, a non-compliance rate of about 0.5%;
- 248 incidents of non-compliance were recorded in the Eden region, a non-compliance rate of less than 1% for the first time since 1999/2000;
- 781 incidents of non-compliance were recorded in the Southern region, a 0.8% non-compliance rate since the commencement of the IFOA in May 2002.

Capacity to measure and monitor change

MIG indicator 7.4 (narrative): Capacity to measure and monitor changes in the conservation and sustainable management of forests (UNE, LNE, Eden, Southern regions)

The ESFM criteria and indicators are the main mechanism to monitor changes in the conservation and sustainable management of forests in the UNE, LNE, Eden and Southern regions. As reported in 2001/2002, the indicators monitor the effectiveness of management practices and its impact on the social, economic and environmental values of forests. The indicators will be reviewed in the future, to determine the adequacy of the indicators.

Regional monitoring is complemented by the NPWS' performance-based reporting framework, *State of the Parks* reporting system (outlined below) and SFNSW *SEEing* reporting.

The NPWS *State of the Parks* program aims to achieve:

- effective and adaptive park management decision-making;
- systematic and transparent links between management objectives and actions;
- transparent allocation of funding and resources to achieve outcomes;
- strong partnerships with communities;
- effective communication of management performance to the community.

The NPWS' first *State of the Parks* report in 2001 was the first stage of their reporting framework giving an overview of the conservation values of the New South Wales reserve system, ways these values are protected and profiles of the State's parks. During 2002/2003, the *State of the Parks* framework was developed and trialled. Implementation is progressing, and the results published in the next *State of the Parks* report.

SFNSW corporate sustainability is reported in its annual *SEEing* report. The reporting framework has adopted the concept of 'triple bottom line' accounting and reporting to monitor progress towards sustainable forest management. This means measuring and reporting its performance in terms of social and environmental outcomes as well as financial results. The SEEDs database operates in all SFNSW Regions. It provides a means to collect consistent data for a range of indicators, facilitating regional and corporate review of planning, policy, and management activities.

Research and development

MIG indicator 7.5 (narrative): Capacity to conduct and apply research and development aimed at improving forest management and delivery of forest goods and services (UNE, LNE, Eden and Southern regions)

Research is central to improving the management of forest areas. All agencies are continuing research activities. Research papers published by the NPWS and SFNSW have been provided in the *Ecologically Sustainable Forest Management Criteria and Indicators Monitoring Report 2002/2003*.

A number of the research projects described in the *Ecologically Sustainable Forest Management Criteria and Indicators Monitoring Report 2002/2003* demonstrate that the NPWS are becoming better predictors and managers of anthropogenic influences on natural and cultural heritage conservation. These include research projects in pest animal and weed management, fire management, threatened species, populations and communities, cultural heritage and visitor management.

SFNSW research and development objectives are delivered primarily through its Research and Development Division. The Divisions' primary focus is on innovative scientific development in fields which can add value to the planted forests, investment services and native forests businesses of the organisation. Significant work has been directed at establishing the benefits of planted forests for such purposes as carbon sinks, mine site rehabilitation, biodiversity enhancement and the development of sustainable land use practices for salinity prone areas. For further details on current research activities refer to the *State Forests of NSW Research and Development – Annual Report 2002/03* (at www.dpi.nsw.gov.au/forests)

4

Compliance with the integrated forestry operations approvals

Overview

The IFOAs contain non-licence terms administered by RACD of PlanningNSW, and three licences: the Threatened Species Licence, administered by the NPWS, the Environment Protection Licence, administered by the EPA, and the Fisheries Licence administered by NSW Fisheries.

Auditing of all areas of the IFOAs has been, greatly improved by effective and standardised monitoring programs. Other improvements have been new specialist compliance officers and discussion and inter-agency cooperation on compliance.

During 2002, the IFOA for the Southern region was implemented. Monitoring of compliance with the terms and conditions of the approval is provided for the first time in this report.

Amendments were also made to existing IFOAs for the UNE, LNE and Eden regions, details of which are provided below.

IFOA amendments

The IFOAs for the UNE, LNE and Eden regions were amended during 2002/2003. These amendments were the second amendments made to the IFOAs for the UNE, LNE and Eden regions, commencing on 3 May 2003. The purpose of the amendments was primarily to address an unintentional consequence of the IFOAs for the Upper North East and Lower North East regions, the 'buffer-on-buffer' effect (discussed below). Other miscellaneous amendments were also made to the Threatened Species Licence and non-licence terms of IFOAs for the Upper North East, Lower North East and Eden regions.

Copies of amendment 2 for the UNE, LNE and Eden IFOAs may be viewed at various regional offices of PlanningNSW, SFNSW and the NPWS. The amendment may also be viewed at <http://www.racac.nsw.gov.au>.

'Buffer-on-buffer' effect

Prior to amendment 2 to the UNE and LNE IFOAs, forestry operations on State forests (conducted under the terms of the IFOAs) prohibited the felling of trees into certain protected or buffer zones (including areas besides streams or other sensitive areas such as rainforest, old growth forest and threatened species habitat). The 'buffer-on-buffer' effect refers to the restriction on timber harvesting in areas adjoining certain protected or buffer zones when harvested trees fall would fall into the protected area, resulting in unintentional losses in timber volumes agreed to in the North East RFA.

In response to this, a timber availability study looked at a number of compartments which contained, or bordered on, protected areas of four kinds:

- rainforest;
- old growth forest;
- EPA filter strips³³;
- NPWS stream exclusion zones³⁴.

The study estimated that about 12% of timber was foregone as a consequence of the restriction of timber harvesting near these areas. Further studies by SFNSW found additional timber was foregone, bringing the estimated amount of timber foregone to 18%.

A complex set of amendments to the IFOAs subsequently allowed SFNSW access to timber near these protected areas while minimising impact on the environment. In summary, the amendments:

- permit limited operations near the boundaries of certain protected areas, such as high conservation value old growth forest, rare-non-commercial forest types, certain riparian zones exclusion zones around threatened species habitat and Special Management Zones created under the *Forestry Act* and FMZ 2 and 3a³⁵;
- allow the felling of trees into protected areas, whereby timber situated outside of a protected area (as described above) may be felled into the area. Timber felled into a protected area is restricted to that which cannot practicably be felled away from the area, and timber that is of a high quality;
- limit the number of trees that may be felled into a protected area in any one harvesting operation, and the removal of the tree must only cause minimal disturbance to the area;
- limit the entering of machinery into protected areas to remove trees felled into the area (e.g. harvest machinery is not permitted beyond five metres of the boundary of protected areas);
- modify stream exclusion zone widths in the Environment Protection Licence, Threatened Species Licence and Fisheries Licence contained in each IFOA to allow access to timber but also protect water quality and riparian habitat;
- ensure an area of undisturbed vegetation is retained on all streams to provide both riparian habitat and to maintain undisturbed filter strips on all streams to protect water quality. This includes the reinstatement of 70% ground cover to provide additional protection from sediment sources such as log furrows and other disturbed areas on the outer edge of the riparian zones on all streams;

³³ Filter strip - a strip of vegetation or groundcover along each side of a watercourse or drainage line (see glossary).

³⁴ Exclusion zone - a protected area along a watercourse whereby forestry activities are prohibited under the terms of the Threatened Species Licence.

³⁵ FMZ 2 and 3a - land classifications under SFNSW Forest Management Zoning System.

- allow trees accidentally felled into a protected area to be removed as long as those trees will produce at least one timber product that is not low quality timber or pulp grade timber;
- provide tests to determine if a tree felled into a protected area has in fact been accidentally felled and allows the removal of the accidentally felled tree.

Threatened Species Licence

When investigating SFNSW' harvesting operations, the NPWS investigated complaints from the public and carried out audits, following standard statewide procedures approved by the NPWS executive in March 2002.

Investigations included field inspections, desk-top assessments, discussions and correspondence with SFNSW personnel. Each complainant was advised of the progress of investigations in accordance with the Agency Coordinated Forestry Complaint Handling Protocol.

Upper North East region

During 2002/2003, the NPWS received six new complaints from the public concerning alleged breaches of the Threatened Species Licence for the UNE region. An additional three complaints were ongoing investigations carried over from 2001/2002. The nine complaints covered eight separate harvesting operations. Breaches of eight separate Threatened Species Licence conditions were identified.

The NPWS undertook three proactive audits during 2002/2003 in the UNE region. In two of the audit investigations of harvesting operations, six Threatened Species Licence conditions were assessed and no contraventions were identified. In the third audit, a contravention of the licence was identified involving information contained in the SFNSW non-compliance register.

Lower North East region

During 2002/2003, the NPWS received three new complaints from the public concerning alleged breaches of the Threatened Species Licence for the LNE region covering three separate harvesting operations. Breaches of eight separate Threatened Species Licence conditions were identified. Two investigations are ongoing.

The NPWS undertook two proactive audits during 2002/2003 in the LNE region. One identified a contravention of the Threatened Species Licence. The other investigation of a harvesting operation did not identify any breaches.

Eden region

During 2002/2003, the NPWS received no complaints from the public concerning alleged breaches of the Threatened Species Licence for the Eden region.

The NPWS undertook one proactive audit of harvesting operations in the Eden region during 2002/2003 and as a result an investigation of contraventions to the Threatened Species Licence is ongoing.

Southern region

In the IFOA for the Southern region, there are two Threatened Species Licences specific to the South Coast and Tumut sub-regions.

South Coast sub-region

During 2002/2003, the NPWS received two new complaints from the public alleging breaches of the Threatened Species Licence for the South Coast sub-region during two separate harvesting operations. No contravention of the licence was identified in one investigation and the other is ongoing.

The NPWS undertook two proactive desktop audits and two proactive field audits of harvesting operations in the South Coast sub-region. No contraventions of the Threatened Species Licence were identified except in one field audit which revealed a contravention of the Threatened Species Licence. This was contested by SFNSW and subsequently withdrawn by the NPWS.

Tumut sub-region

During 2002/2003, the NPWS received no complaints from the public about alleged breaches of the Threatened Species Licence for the Tumut sub-region.

Two proactive audits were undertaken for the Threatened Species Licence for the Tumut sub-region. Six Threatened Species Licence conditions were investigated in each audit and no contraventions were identified.

Environment Protection Licence

The role of the EPA in the management of SFNSW' forestry operations is to protect the aquatic environment from water pollution via environment protection licences issued to SFNSW under the *Protection of the Environment Operations Act 1997*. Where SFNSW chooses licence coverage of its forestry operations, it must comply with the conditions of the Environment Protection Licences contained in each of the IFOAs for the UNE, LNE, Eden and Southern regions. Where SFNSW does not seek licence coverage, its forestry operations are subject to section 120 of the *Protection of the Environment Operations Act*, which prohibits the pollution of waters.

Summary of auditing program

To determine SFNSW' compliance with licence conditions, the EPA have developed an active audit program of SFNSW' forestry operations. The audit program ensures that SFNSW protects the aquatic

environment. Non-compliance with conditions of the licence are dealt with through meetings with senior SFNSW officers, feedback or warning letters, clean-up notices, penalty notices or prosecution actions.

During the period 1 July 2002 to 30 June 2003, the EPA conducted 19 comprehensive audits of SFNSW' pre-operational planning and operations covered by an IFOA. These include activities in the UNE, LNE, Eden and Southern regions. EPA's auditing of pre-operational planning and operations identified 302 breaches in all regions. Because they are being determined they not been included in the above total. The EPA conducted 21 audits the previous year (1 July 2001 to 30 June 2002) and found 173 breaches of the licence in all regions.

As a result of the EPA's pre-operational and operational planning audits between 1 July 2002 and 30 June 2003, SFNSW was issued with one penalty notice, two clean-up notices and 16 warning letters from the EPA. SFNSW was required to undertake remedial work at 18 sites and seek expert soil conservation advice on five occasions. Enforcement action from four audits is currently being determined.

In addition, from 1 July 2002 to 30 June 2003, the EPA audited the complaints, compliance and operations registers for two SFNSW regions covered by an IFOA and identified 382 breaches, resulting in one penalty notice and two warning letters. The EPA conducted two audits of the complaints, compliance and operations register the previous year (1 July 2001 to 30 June 2002) and found 49 breaches.

In total, the EPA's audit program for 2002 to 2003 identified 684 breaches of the Environment Protection Licences, contained in the IFOAs. This figure includes all breaches identified in the planning and operational audits as well as the audits of the complaints, compliance and operations registers.

The following summarises the nature of the breaches identified in each region.

Upper North East region

In the UNE region, Environment Protection Licence coverage applied to 147 separate SFNSW operations during the period 1 July 2002 to 30 June 2003.

The EPA conducted four audits of pre-operational planning and operations in the UNE region for this period, identifying 20 breaches. Three breaches related to non-compliance with pre-operational planning requirements. Fourteen breaches related to operations during harvesting in the region and included instances where water flow along snig tracks had the potential to exceed the distances specified by licence conditions, trees that were felled into filter strips and snig track crossings not drained in accordance with the licence. Three breaches pertained to non-compliance with operating conditions for roads and included crossing approaches not drained effectively and areas where water flow along roads had the potential to exceed the distances specified by licence conditions.

As a result of these audits, the EPA provided feedback and sent warning letters to SFNSW outlining the issues of non-compliance identified. The EPA also issued one penalty notice to SFNSW for non-compliance with the Environment Protection Licence in the region and required remedial work to be carried out on four occasions. The penalty notices issued to SFNSW related to inadequate drainage of snig tracks on steep land.

The EPA also conducted an audit of SFNSW' complaint, compliance and operations registers in the UNE region. The EPA identified 305 breaches that related mainly to the improper maintenance of the compliance register, incorrect procedures when commencing and ceasing licence coverage and incorrect procedures when seeking variation on licence coverage. The EPA issued one penalty notice as a result of this audit.

Lower North East region

Licence coverage applied to 199 separate SFNSW operations for the period 1 July 2002 to 30 June 2003 in the LNE region. The EPA conducted seven audits of pre-operational planning and operations and identified 140 breaches of licence conditions in the region. The breaches from one audit are currently being determined and are not included in the above total. One hundred and eleven breaches related to pre-operational planning requirements. Non-compliance included inadequate site specific planning and documentation of planning. Fourteen breaches were identified for non-compliance with operations during harvesting operations, which included inadequate drainage of snig tracks. Fifteen breaches related to non-compliance with operating conditions for roads in the region and included ineffective road drainage.

As a result, the EPA provided feedback and sent warning letters to SFNSW regarding non-compliance with licence conditions in the region. SFNSW was required to undertake remedial work at eight sites and seek expert soil conservation advice on four sites. Enforcement action in relation to one audit is currently being determined.

Eden region

During the period 1 July 2002 to 30 June 2003, licence coverage applied to 196 separate forestry operations in the Eden region. The EPA conducted two audits of pre-operational planning and operations. The EPA identified a total of 24 breaches of licence conditions in the Eden region. Three breaches related to non-compliance with planning requirements including a lack of site specific planning and inaccurate or incomplete planning documentation. Nine operational breaches were identified for forestry activities relating to trees intentionally felled into filter strips and ineffective drainage on snig tracks. Twelve breaches related to non-compliance with operational conditions for roads related mostly to the potential for water flow along roads exceeding distances specified in the licence.

As a result the EPA provided feedback to SFNSW and issued warning letters about non-compliance with the Environment Protection Licence for the Eden region. SFNSW was required to undertake remedial work on two occasions.

Southern region

Licence coverage applied to 59 separate SFNSW operations for the period 1 July 2002 to 30 June 2003 in the Southern region. The EPA conducted six audits of SFNSW' pre-operational planning and operations and identified 48 breaches of planning requirements including a lack of site specific planning and inaccurate or incomplete documentation. Fifteen breaches related to non-compliance with operational conditions for roads within the region and 56 breaches related to non-compliance with harvesting including inadequate snig track drainage and felling trees located in filter strips.

As a result of these audits, the EPA provided feedback to SFNSW and issued warning letters outlining non-compliance with licence conditions in the Southern region. SFNSW was required to undertake remedial work at four sites and seek expert soil conservation advice for one site. Enforcement action is currently being determined in relation to three audits.

The EPA also conducted an audit of complaints, compliance and operations registers in the Southern region that identified 77 breaches of the Operations Register, which was not maintained in accordance with the requirements of the Environment Protection Licence. As a result the EPA issued a warning letter.

Fisheries Licence

The Fisheries Licence is issued under Part 7A of the *Fisheries Management Act 1994* to ensure forestry operations do not negatively impact on threatened species or aquatic habitat. Compliance management of the licence falls into three main areas of operation which are detailed below.

Review of planning documentation

Desktop reviews of harvest planning documentation are carried out routinely as documents are received. The main issues considered includes exclusion zones for specific aquatic habitats and road locations, which will minimise the number of watercourse crossings.

Digital species distribution data

Compliance with planning and on-ground conditions of the Fisheries Licence depends on detailed digital species distribution data compiled from surveys, expert assessment and community sightings reports.

Distribution data for the eastern cod (*Maccullochella ikei*), the species most likely to be affected by forestry operations in the UNE and LNE regions, was provided to SFNSW during 2002/2003. Updates and revisions of this information will be undertaken regularly from 2002/2003 onwards. All appropriate licence protection mechanisms in the UNE and LNE regions are now operative.

In the Southern region, the Macquarie perch (*Macquaria australasica*) is the species most likely to be affected by forestry operations. After NSW Fisheries determine its distribution next year all licence protection mechanisms available to NSW Fisheries will operate.

NSW Fisheries is also developing detailed distribution data for other threatened fish species that may be impacted by forestry operations in the Southern region.

There are currently no threatened fish species likely to be harmed by forestry operations in the Eden region.

Random inspections and response to complaints

NSW Fisheries audits compliance with the Fisheries Licence in conjunction with its other compliance duties. Complaints are investigated when received.

NSW Fisheries report that there were no known contraventions of the Fisheries Licence for the UNE, LNE, Eden or Southern regions during 2002/2003.

Non-Licence Terms

The non-licence terms of the IFOAs are administered by the RACD of PlanningNSW. Administration of the non-licence terms involves carrying out investigations of public complaints, liaison with SFNSW and other regulatory agencies, and limited proactive investigations of compliance with the non-licence terms. RACD plans to increase their proactive investigation of SFNSW compliance.

RACD follows the Agency Coordinated Complaint Handling Protocol when investigating complaints received from the public alleging breaches of the non-licence terms.

During 2002/2003, RACD received eight complaints of alleged breaches of non-licence terms of the IFOAs for the UNE, LNE, Eden and Southern regions including broader forest issues such as forest health. Joint investigations were also undertaken with DEC on issues related to Threatened Species Licence and Environment Protection Licence.

The matters involved with the complaints related to the non-licence terms included:

- application of silvicultural prescriptions including Australian Group Selection (AGS) and Single Tree Selection (STS) in the UNE region;
- burning/fire policies of SFNSW and the issue of dieback in the UNE region;
- the presence of high conservation value old growth forest in the UNE and LNE regions;
- public availability of documents listed in the IFOA in both the UNE, LNE and Southern regions;
- information contained in the Annual Plan of Logging Operations for the South Coast subregion of the Southern region.

Following the complaint on the availability of documents in the UNE and Southern regions, public accessibility of documents in all regions was investigated.

Other discussions with SFNSW concerned IFOA non-licence terms including the Plan of Forest Products Operations, principle purpose, notices on the commencement and completion of harvesting operations and model plans for grazing management plan, site specific plan of burning operations, weed management plan, road and fire trail management plan and feral and introduced animal management plan.

References and bibliography

Agriculture, Fisheries and Forestry, Australian Government Department of, 2005, 'Objectives of the Strategy – National Indigenous Forestry Strategy'. <http://www.affa.gov.au/nifs>

Commonwealth of Australia and the State of New South Wales 2001, *Regional Forest Agreement for Southern New South Wales*, April 2001. Commonwealth of Australia.

Commonwealth of Australia and the State of New South Wales 2000, *Regional Forest Agreement for North East New South Wales (Upper North East and Lower North East Regions)*, March 2000. Commonwealth of Australia.

Commonwealth of Australia and the State of New South Wales 1999, *Eden Regional Forest Agreement*, August 1999. Commonwealth of Australia.

Commonwealth of Australia 1998, *A Framework of Regional (Sub-national) Level Criteria and Indicators of Sustainable Forest Management in Australia*, Montreal Process Implementation Group.

Commonwealth of Australia 1992, *National Forest Policy Statement: A New Focus for Australia's Forests*. Commonwealth of Australia.

Cultural Heritage Working Group 2000a, *Protective Mechanisms for Cultural Heritage – Generic Version*. A project undertaken as part of the NSW Comprehensive Regional Assessment. Resource and Conservation Division, NSW Department of Urban Affairs and Planning.

Cultural Heritage Working Group 2000b, *Protective Mechanisms for Protecting Cultural Heritage – Lower North East Region*. A project undertaken as part of the NSW Comprehensive Regional Assessment. Resource and Conservation Division, NSW Department of Urban Affairs and Planning.

Department of Infrastructure Planning and Natural Resources, 2004a, *Plantation Regulation in NSW. Vegetation Management in NSW - Fact Sheet*. March 2004. Department of Infrastructure Planning and Natural Resources.

Department of Infrastructure Planning and Natural Resources, 2004b, *Profile of plantation authorisations in NSW since December 2001*. Vegetation Management in NSW – Fact Sheet. Department of Infrastructure Planning and Natural Resources.

Department of Land and Water Conservation, 2001. *Investing in Planted Forests: Guidelines for applicants. Plantations and Reafforestation Act 1999 and Code*. September 2001, Department of Land and Water Conservation.

Ecologically Sustainable Forest Management Group 1999a, *Criteria, Indicators, Targets and Monitoring Processes of Ecologically Sustainable Forest Management for the Upper North East and Lower North East RFA Regions*. A project undertaken as part of the NSW Comprehensive Regional Assessment. Project number NA41/ESFM. Resource and Conservation Division, NSW Department of Urban Affairs and Planning.

Ecologically Sustainable Forest Management Group 1999b, *ESFM Technical Framework*. A project undertaken as part of the NSW Comprehensive Regional Assessment. Resource and Conservation Division, NSW Department of Urban Affairs and Planning.

Ecologically Sustainable Forest Management Group 1998, *Criteria and Indicators in the Eden Region*. A project undertaken as part of the NSW Comprehensive Regional Assessment. Resource and Conservation Division, NSW Department of Urban Affairs and Planning.

Flint L, 2003, 'New carbon forest for NSW announced in Italy', *Bush Telegraph*, Summer 2003, State Forests of New South Wales.

IUCN 1994, *Guidelines for Protected Area Management Categories*. IUCN Commission on National Parks and Protected Areas with the assistance of the World Conservation Monitoring Centre. IUCN.

Joint ANZECC/MCFFA National Forest Policy Statement Implementation Sub-Committee 1997, *Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia*. Commonwealth of Australia.

Kinhill Pty Ltd 1999, *Protecting Cultural Heritage Values and Places in NSW Forests*, Kinhill Pty Ltd.

New South Wales Government 2003, *CANRI Business Case*,
http://www.canri.nsw.gov.au/business_case_exec_sum.html

New South Wales Government 2002a, *Forest Agreement for the Southern Region*, 3 May 2002, New South Wales Government.

New South Wales Government 2002b, *Integrated Forestry Operations Approval for the Southern Region*, 3 May 2002, NSW Department of Planning.

New South Wales Government 2002c, *Submissions Report: Southern Region Forest Agreement*, February 2002. Resource and Conservation Division, Department of Planning.

New South Wales Government 2001, *Action for the Environment: New South Wales Government Environment Statement 2001*, New South Wales Government.

New South Wales Government 1999a, *Forest Agreement for the Eden Region*, 5 March 1999, New South Wales Government.

New South Wales Government 1999b, *Forest Agreement for the Lower North East Region*, 5 March 1999, New South Wales Government.

New South Wales Government 1999c, *Forest Agreement for the Upper North East Region*, 5 March 1999, New South Wales Government.

New South Wales Government 1999d, *Integrated Forestry Operations Approval for the Upper North East Region*, New South Wales Government.

New South Wales Government 1999e, *Integrated Forestry Operations Approval for the Lower North East Region*, New South Wales Government.

New South Wales Government 1999f, *Integrated Forestry Operations Approval for the Eden Region*, New South Wales Government.

NSW National Parks and Wildlife Service, 2003, *Saving our Threatened Native Animals and Plants: Recovery and Threat Abatement in Action*. National Parks and Wildlife Service.

NSW National Parks and Wildlife Service, 2002, 'Park Management Plans'.
<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/park+management+plans+by+doctype>.

NSW National Parks and Wildlife Service 2001a, *Northern Wilderness Assessment Report - 2001*. NSW National Parks and Wildlife Service (Northern Directorate).

NSW National Parks and Wildlife Service 2001b, *Threat Abatement Plan for Predation by the Red Fox (Vulpes vulpes)*. NSW National Parks and Wildlife Service.

NSW National Parks and Wildlife Service 2001c, *State of the Parks 2001*. NSW National Parks and Wildlife Service.

NSW National Parks and Wildlife Service, 2000, *Southern Wilderness Assessment Report: Southern Region Comprehensive Regional Assessment*, October 2000. Southern Directorate, Conservation Planning and Programs Division, NSW National Parks and Wildlife Service.

NSW National Parks and Wildlife Service 1999a, *NSW Biodiversity Strategy*. NSW National Parks and Wildlife Service.

NSW National Parks and Wildlife Service 1999b, *Forest Ecosystem Classification and Mapping for Upper and Power North East CRA Regions*. A project undertaken for the Joint Commonwealth NSW RFA Steering Committee as part of the NSW Comprehensive Regional Assessments, NA 35/EH. CRA Unit, Northern Zone, NSW National Parks and Wildlife Service.

NSW National Parks and Wildlife Service 1998, *Visions for the New Millennium*, Report of the Steering Committee to the Minister for the Environment, November 1998, NSW National Parks and Wildlife Service.

NSW National Parks and Wildlife Service, *Atlas of NSW Wildlife*
<http://www.wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlas.jsp> .

Oak Ridge National Laboratory website <http://www.ornl.gov/>

State Forests of New South Wales 2003, *Research and Development Division – Annual Report 2002/03*, State Forests of New South Wales. (online at <http://www.forest.nsw.gov.au/research>)

State Forests of New South Wales, 2003a, '\$360m expansion for Visy mill', *Bush Telegraph*, Winter 2003, June-August 2003.

State Forests of New South Wales 2003b, *SEEing – Social, Environmental and Economic*, State Forests of New South Wales.

State Forests of New South Wales, 2000a, *Native Forests Environmental Management System - Strategic Framework*, September 2000. State Forests of New South Wales.

State Forests of New South Wales 2000b, *Native Forest Silviculture Manual*, State Forests of New South Wales.

State Forests of New South Wales 1999a, *Managing Our Forests Sustainably: Forest Management Zoning in NSW State Forests*, State Forests of New South Wales.

State Forests of New South Wales 1999b, *Pine Creek Koala Management Plan*, State Forests of New South Wales.

Appendix 1.1

Summary of areas transferred under the National Park Estate (Reservation) Act 2002

Land description	New reserve area		Additions to existing reserve areas	
	No. of areas transferred	Area (ha) of areas transferred*	No. of areas transferred	Area (ha) of areas transferred*
State forest transferred to:				
LNE region				
National park	2	2 477	15	16 571
Nature reserve	1	26	7	2 934
SCA	12	14 255	0	0
UNE region				
National park	2	3 276	11	15 069
Nature reserve	1	276	2	567
SCA	11	6 177	0	0
Total		26 487		35 141
Crown land transferred to:				
LNE region				
National park	0	0	2	6 694
SCA	1	729	0	0
UNE region				
National park	0	0	3	22 883
Total		729		29 577
Freehold land transferred to:				
LNE region				
National park	0	0	3	1 040
SCA	1	1 439	0	0
UNE region				
National park	0	0	4	1 526
SCA	1	2 770		0

Land description	New reserve area		Additions to existing reserve areas	
	No. of areas transferred	Area (ha) of areas transferred*	No. of areas transferred	Area (ha) of areas transferred*
Southern region				
SCA	1	1 037	0	0
Total		5 246		2 566
Crown reserve transferred to new state conservation area:				
LNE region	2		8 255	
UNE region	9		13 745	
Eden region	1		221	
Southern region	9		22 649	
Total			44 870	
Revocation of flora reserve:				
LNE region	11		34	
UNE region	5		22	
Eden region	2		8	
Total			64	

* areas have been rounded to nearest 1 ha.

Source: RACD, PlanningNSW

Appendix 2.1

Individual milestone progress

Progress provided in for individual milestones should be read in conjunction with text provided under corresponding headings in chapter 2.

Due date	Region	FA section*	Milestone	Progress
MANAGING THE FORESTS				
Environmental Management Systems				
2001	1 April	UNE, LNE, Eden	2.1.1 Att 3 Att 4 Preparation of SFNSW EMS – Native Forest Management System.	In progress The development of SFNSW' NFEMS is being carried out with the objective of attaining ISO 14001 certification. The NFEMS was publicly exhibited in association with other management documents including the Eco-field guide, Silviculture policy and Regional ESFM plans in 2000. As a result SFNSW has considered comments made by regulators and stakeholders in developing its draft EMS system. In 2002/2003, the development of the system focused on the outcomes of the SFNSW EMS audits undertaken in each SFNSW Native Forest Region during 2001/2002. Results of these audits indicated that improvements could be made in SFNSW in a number of areas of management including systematic processes for forest management and incorporating corporate documents to ensure a consistent environmental systems approach in all areas of SFNSW operations. Completion and certification of the EMS for native forests is anticipated by early 2006.
2003	30 June	Sthn	2.1.1 Att 2 & 3 Att 6(2c) Complete and implement SFNSW EMS.	In progress Refer to milestone above.
2003	31 December	Sthn	2.1.1 A further part of the EMS will be prepared to cover the planted forest component.	In progress SFNSW' EMS for its planted forest estate is being developed, with the objective of obtaining ISO 14001 certification. Completion and certification of the EMS for planted forests is anticipated by early 2006.
2004	1 April	UNE, LNE, Eden	2.1.2 Att 3 Preparation of NPWS Environmental Management Systems.	In progress Development of the NPWS' EMS during the year included some components being trialled and implemented. A major component of the system will comprise the <i>State of the Parks</i> report. As part of <i>State of the Parks</i> , the trial and implementation of indicators to measure management effectiveness on a sample of parks throughout the State was undertaken during the year. Parks sampled as part of <i>State of the Parks</i> located in the forest agreement regions included; Border Ranges National Park (UNE region), Barrington Tops National Park (LNE region), Nadgee Nature Reserve (Eden region) and Kosciuszko National Park (Southern region). A framework for the expansion of the program is under development.
2004	30 April	Sthn	2.1.2 Att 6 (2b) Development and implementation of and EMS by NPWS.	In progress Refer to milestone above.
Ongoing		Sthn	2.1.2 To facilitate implementation of the EMS, NPWS staff and contractors must continue to receive appropriate competency-based training.	In progress EMS not yet complete. However, agency-based staff training is continuing.

Due date	Region	FA section*	Milestone	Progress
PLANS OF MANAGEMENT				
Plans of management for the NPWS estate				
2005	1 January	UNE, LNE, Eden	2.3.2 Att 8 Preparation of plans of management for dedicated reserves under the <i>National Parks and Wildlife Act 1974</i> .	<p>In progress</p> <p>At 30 June 2003 there were 293 national parks/nature reserves/SCAs/historic sites/Aboriginal areas situated in the UNE and LNE regions. Of these, 72 had plans of management adopted by the Minister for the Environment (including seven that were being revised). A further 135 plans were in preparation (including 63 that were in draft, one of which had been publicly exhibited).</p> <p>For the Eden region, of the 17 national parks/nature reserves/historic sites, nine had plans of management adopted by the Minister for the Environment (including one that was being revised). A further five plans were in preparation. The preparation of the plan of management for Biamanga National Park is not scheduled until leaseback arrangements are finalised.</p> <p>Plans adopted during 2002/2003 for reserve areas within the forest agreement regions included: Myall Lakes National Park, Bald Rock National Park and Torrington SCA in the UNE region, Ben Halls Gap National Park in the LNE region and Nadgee Nature Reserve in the Eden region.</p> <p>Plans of management (including draft plans) may be viewed on the NPWS website: http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Fire+and+park+management+plans+by+title.</p>
2006	31 January	Sthn	2.3.2 Preparation of plans of management for dedicated reserves under the <i>National Parks and Wildlife Act 1974</i> .	<p>In progress</p> <p>For the Southern region, of the 117 national parks/nature reserves/SCAs/historic sites/Aboriginal areas, 21 had plans of management adopted by the Minister for the Environment (including one that was being revised). A further 31 were in preparation (including six in draft, one of which had been publicly exhibited).</p> <p>Plans of management (including draft plans) may be viewed on the NPWS website: http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Fire+and+park+management+plans+by+title.</p>
1999	31 March	UNE, LNE, Eden	2.4.1 Att 8 Release and adoption of NSW Biodiversity Strategy.	<p>Complete</p> <p>The NSW Biodiversity Strategy was released in March 1999 and has since been implemented. It provided a framework for coordinating the protection of NSW' biodiversity values by the Government and the community. A review of the performance of the strategy between 1999 and 2003 commenced during the year and is to be complete by 2004. Further information on the NSW Biodiversity Strategy and NPWS projects may be viewed at: http://www.nationalparks.nsw.gov.au/biodiversitystrategy.</p>
Ongoing		Sthn	2.4.1 Att 6(2d) Implementation of NSW Biodiversity Strategy.	<p>Implemented</p> <p>See milestone above.</p>

Due date		Region	FA section*	Milestone	Progress
Regional ESFM Plans					
2000	1 April	UNE, LNE, Eden	2.2.1	Preparation of Regional ESFM Plans and subject to public exhibition and consultation.	Draft SFNSW continued to refine its Regional ESFM Plans for all forest agreement regions following input from regulatory agencies. The final plans will provide a framework for the management of a range of forest values across State forests including biodiversity, harvest planning, and indigenous and non-indigenous cultural heritage and will be on public exhibition in 2005. Supplementary model management plans (required by the IFOAs) for fire, weeds, feral animals, roads and grazing, were also being done during the year and will be released with the final Regional ESFM Plans.
2002	31 August	Sthn	2.2.1, 4.3 Att 6(1) & 2(a)	Preparation of Regional ESFM Plans.	In progress Refer to milestone above.
Annually		UNE, LNE, Eden	2.2.6	Report on progress on meeting targets in Regional ESFM Plans.	In progress Reporting against targets in the Regional ESFM Plans will commence following the finalisation and implementation of the plans. A reporting template being developed will identify key reporting requirements and provide a consistent reporting framework.
Annually		Sthn	2.2.6	Progress in meeting the targets in the Regional ESFM Plans must be reported annually through Regional ESFM reports.	In progress See milestone above.
2002	30 June	Sthn	6.16	Formation of a working group to make recommendations on the management and tenure of areas of State forests that are isolated from the productive State forests.	In progress Working group to be formed.
Flora reserves					
2001	1 April	UNE, LNE, Eden	2.2.2 2.2.3 (E)	Preparation of working plans for flora reserves, to be incorporated into the Regional ESFM Plans.	In progress Flora reserves in State forests are classified within SFNSW' Forest Management Zoning (FMZ) system as FMZ 1 – 'Special Protection'. A timetable for the preparation of working plans for flora reserves was included in the draft Regional ESFM Plans for the UNE, LNE and Eden regions in 2000. A number of working plans for flora reserves already existed at the time of the CRA/RFAs and were reviewed by SFNSW in accordance with the above timetable. SFNSW found these plans met the requirements of the Forestry Act, section 25A subsection 5. For flora reserves that did not have an existing working plan, SFNSW are progressively developing these for completion by late 2006. The further assessment of lands, principally in the UNE and LNE regions in 2001/2002 resulted in 18 remnant of flora reserves in the UNE (5), LNE (11) and Eden (2) regions having the flora reserve status revoked by the <i>National Park Estate (Reservations) Act 2002</i> in January 2003. At 30 June 2003, 19 flora reserves were situated in the UNE region. Of these, 18 flora reserves had plans approved by the Minister for Forests. In the LNE region, there were 17 flora reserves, which include the amalgamation of two existing reserves (Bar and Warrawalong flora reserves). All

Due date		Region	FA section*	Milestone	Progress
					<p>17 existing flora reserves had plans approved by the Minister for Forests at the end of the reporting period. One plan for the new Mount Allyn Flora Reserve and one to replace the combined Bar and Warrawolong Flora Reserve were scheduled to be completed by 30 June 2004.</p> <p>In the Eden region there were 12 flora reserves, 10 of which had plans approved by the Minister for Forests. The remaining two plans had a target completion date of June 2004.</p> <p>All working plans for flora reserves are to be progressively reviewed as required.</p>
2002	31 August	Sthn	2.2.2 2.3.2	Complete and make public working plans for land dedicated or set apart as flora reserves (attached to the Regional ESFM Plans).	<p>In progress</p> <p>Of the 17 flora reserves in the Southern region, 13 flora reserves had plans approved by the Minister for Forests at 30 June 2003. Working plans for the remaining four flora reserves is expected to be drafted by December 2005. Final working plans for all flora reserves are to be incorporated in SFNSW Regional ESFM Plans, and expect to seek approval of the plans by mid 2006.</p> <p>All working plans for flora reserves are to be progressively reviewed as required.</p>

Informal reserves

2001	1 April	UNE, LNE, Eden	2.3.3	Preparation of working plans for informal reserves and areas managed by prescription on State forests, to be included in the Regional ESFM Plans.	<p>In progress</p> <p>Work is being undertaken on completion of this milestone</p>
2002	31 August	Sthn	2.3.3	Preparation of working plans for informal reserves (FMZ 2 and 3a) and guidelines for areas managed by prescription (FMZ 3b and 4) in consultation with DoP, NPWS and DMR.	<p>In progress</p> <p>Working plans for informal reserves (FMZ 2 and 3a) in the Southern region are being finalised as part of the development of the Regional ESFM Plans. Public exhibition of the plans is expected to occur in 2005.</p>

Larger more significant exclusion areas of rainforest, high conservation value old growth forest and other prescriptive exclusions

2001	30 June	UNE, LNE, Eden	2.4.4.5	Directors-General of NPWS, PlanningNSW and CEO SFNSW to agree on the larger more significant exclusion areas of rainforest, high conservation value old growth and other prescriptive exclusions.	<p>Deferred</p> <p>Completion of milestone was put on hold until the completion of the FMZ Assessment. At 30 June 2003 milestone had yet to be completed.</p>
2002	31 December	Sthn	2.4.5.6	The larger more significant exclusion areas will be those as agreed between the Director-General of NPWS, Chief Executive Officer of SFNSW and the Director-General of DoP.	<p>In progress</p> <p>SFNSW and NPWS have discussed that the compilation of the larger more significant exclusion areas would be best undertaken after SFNSW FMZ is approved by the Minister for Forests. The FMZ document is to be presented to the Minister for approval in 2005.</p>
2002	1 January	UNE, LNE, Eden	2.4.4.5	Preparation of management plans for large areas of rainforest, high conservation value old growth and other areas excluded by prescription (attach to Regional ESFM Plans and in consultation with NPWS).	<p>In progress</p> <p>SFNSW is preparing a plan for the management of informal reserves as part of the Regional ESFM Plans for each region. Consultation on the draft plan is to occur with other State agencies.</p>

Due date		Region	FA section*	Milestone	Progress
2002	31 August	Sthn	2.4.5.6	Preparation of guidelines for the management of large areas of rainforest, high conservation value old growth and other areas excluded by prescription and attached to the Regional ESFM Plan.	In progress Currently being considered.
Creation of special management zones					
1999	1 October	UNE, LNE, Eden	2.3.1	Minister for Forestry to create informal reserve pursuant to the amended <i>Forestry Act 1916</i> and called 'special management zones'.	In progress Special management zones are declared under section 21A of the <i>Forestry Act</i> and include areas of State forest protected to preserve its special conservation value. It was inserted in 1998 into the <i>Forestry Act</i> by Schedule 8 of the <i>Forestry and National Park Estate Act</i> . An amendment was also made to section 21A of the <i>Forestry Act</i> to require an Act of Parliament to revoke (either wholly or in part) a special management zone. The effect of this is that an area declared a special management zone under section 21A of the <i>Forestry Act</i> has the same level of protection as any other dedicated reserve such as a national park or flora reserve. Special management zones in the UNE and LNE regions were declared by the <i>National Park Estate (Reservations) Act 2002</i> (1 January 2003). Formal gazettal of these areas is to be completed by December 2003. Special management zones in the Eden region were proposed, but not areas had been declared during 2002/2003.
2002	31 August	Sthn	2.3.1	Creation of special management zones on State forests.	In progress No special management zones were declared in the Southern region during 2002/2003. Refer to milestone above.
Forest Management Zoning					
1999	1 October	Eden	2.2.2 Att 5	Mapping of FMZs (as defined in Attachment 5 of Agreement) and attached to Regional ESFM Plans. Zones delineate areas of State forest to be managed as conservation reserves and those managed for timber production.	Implemented SFNSW' FMZ system is the means of classifying areas of State forest available for timber harvesting and areas to be managed for conservation purposes due to their high natural or cultural values. A GIS operational layer was agreed to at the time of the signing of the forest agreement for the Eden region in 1999. Areas were illustrated on maps attached to SFNSW draft Regional ESFM Plans, publicly exhibited in 2000. The FMZs have been progressively implemented across State forests in the region, including some minor changes to some FMZs. A FMZ layer is to be publicly displayed with the final Regional ESFM Plans for the Eden region in 2005.
2000	1 April	UNE, LNE	2.2.2 Att 5	Provision of maps of FMZs (as defined in Attachment 5 of the Agreement) and attached to Regional ESFM Plans.	Draft A GIS operational layer was agreed to at the time of the signing of the forest agreements for the UNE and LNE regions in 1999. These areas were illustrated on maps attached to SFNSW draft Regional ESFM Plans, publicly exhibited in 2000. The FMZs have been progressively implemented across State forests in the regions, and have included some minor changes to some FMZs. Final aspects of the FMZ system for the north east regions were postponed, awaiting the completion of a number of aspects, including: the FMZ Assessment which included areas illustrated in Map 2 of the forest agreements for the UNE and LNE regions as FURCONS; and creation of special management zones created by the <i>National Park Estate (Reservations) Act 2002</i> (1 January 2003). A FMZ layer is to be publicly displayed with the final Regional ESFM Plans for the UNE and LNE regions in 2005.

Due date		Region	FA section*	Milestone	Progress
2002	31 August	Sthn	2.2.2	Provision of mapped FMZ on all State forests attached to the Regional ESFM Plans.	Draft A GIS operational layer for the Southern region was agreed to at the time of signing of the forest agreement for the region in 2002 and subsequently applied. A FMZ layer is to be publicly displayed with the final Regional ESFM Plans for the Southern region in 2005.
Ongoing		UNE, LNE, Eden	Att 8	Implement the Forest Management Zoning System.	In progress Refer to above milestone. The full implementation of the FMZ system will be assisted by guidelines which are being developed by SFNSW.

CAR RESERVE SYSTEM

Additions to the NPWS estate

Ongoing		UNE, LNE	6.16.2	The Government may attempt to voluntarily acquire leases using approaches coordinated with the NPWS purchase strategy. Funding to be sought for the purchase of leasehold lands.	Implemented The NSW Government allocated \$1.5 million per year over five years (2001/2002 to 2005/2006) to the NPWS to voluntarily purchase leasehold and freehold lands as required by the UNE and LNE forest agreements. As part of this program, the NPWS continued to voluntarily acquire leases of leasehold and freehold lands in the UNE and LNE regions during 2002/2003. During the year, three leasehold properties (1 347 ha) were purchased in the UNE region and four leasehold properties (5 826 ha) in LNE region.
Ongoing	As soon as practical	UNE, LNE, Eden	.16.2 6.16.1 (E)	Any areas for which leases are purchased must be incorporated by gazettal into the NPWS estate as soon as practical.	Implemented All purchased properties are progressively incorporated into the NPWS estate by gazettal. In 2002/2003, eight previously purchased leases (7 262 ha) in the UNE region and 19 previously purchased leases (32 301 ha) in LNE region were gazetted. These areas are now formally part of the NPWS estate. No lease areas with grazing rights in the Eden region have been identified for inclusion in the NPWS estate.
1999	31 August	UNE, LNE, Eden	6.16.2 6.16.1 (E)	Preparation of procedures for purchasing leases on land.	Deferred Procedures for the purchase of leases have not been developed by the NPWS as there has not been a perceived need for them by relevant stakeholders at this stage. NPWS is continuing with voluntary land acquisitions.
2001	1 April	Eden	6.16.1	Pursue the voluntary purchase of any leases on State forest tenure that has been revoked.	In progress No purchases of leases on State forest tenure that has been revoked were made by the NPWS during 2002/2003. To date only one lease has come onto the market. The timing of the land being placed on the market did not coincide with the land acquisition funding cycle and the NPWS was therefore unable to make the purchase.

Aquatic reserves

Ongoing	As required	UNE, LNE, Eden	2.3.4	Minister for Fisheries may declare aquatic reserves under the <i>Fisheries Management Act 1994</i> within State forests, national parks, native reserves and other Crown lands and develop management arrangements for these reserves.	No reporting required No aquatic reserves were declared under the <i>Fisheries Management Act</i> during 2002/2003.
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Due date		Region	FA section*	Milestone	Progress
Ongoing	As required	Sthn	2.3.4	Minister for Fisheries may declare aquatic reserves.	No reporting required No aquatic reserves were declared under the <i>Fisheries Management Act</i> during 2002/2003.
FMZ Assessment/Northern Additions					
1999	1 December	UNE, LNE	6.16.2	Identification of areas 'available for formal reservation' refined from the 'areas for further consideration'. Process for identifying these lands was outlined in the PlanningNSW Memo dated 4 February 1999, and entitled 'Procedure for dealing with lands for further consideration for reservation'.	In progress The NPWS, DMR and SFNSW completed the review of some 'areas for further consideration for reservation' in 2001 and identified some areas that may be included in the formal reserve system. These areas were considered as part of the FMZ Assessment. Some areas that were available for formal reservation were transferred under the <i>National Park Estate (Reservations) Act 2002</i> . The balance of the area that was identified for reservation but could not be transferred was declared as Special Management Zones under Section 21A of the <i>Forestry Act</i> on 1 January 2003.
1999	1 December	UNE, LNE	6.16.2	SFNSW must pursue upgrading to FMZ 2, and any FMZ 3 areas that would be classed as 'available for formal reservation' but for unresolved mineral issues.	In progress This task was addressed as part of the FMZ Assessment. NPWS has not been contacted by SFNSW or DMR regarding any activities likely to affect values in these areas.
2000	30 June	UNE, LNE	6.16.2	NPWS and SFNSW, in consultation with the Department of Mineral Resources, to complete negotiations on the FMZ category for State forests with mineral and lease interests.	In progress This milestone was partially addressed through the FMZ Assessment. The FMZ Assessment was completed in 2002 and resulted in the transfer of about 121 500 hectares of FMZ 2 and 3 lands to the NPWS estate facilitated by the <i>National Park Estate (Reservations) Act 2002</i> (gazetted in January 2003).
2000	30 June	UNE, LNE	6.16.2 2.3.1	Lands must be zoned by SFNSW as FMZ 2 and FMZ 3 where they are encumbered by leases or have major mineral value precluding FMZ 2 and must be managed accordingly. Any activities on these lands which may diminish the values of the area must only be carried out with the agreement of NPWS and following consultation with leaseholders.	In progress This task was addressed as part of the FMZ Assessment. NPWS has not been contacted by SFNSW or DMR regarding any activities likely to affect values in these areas.
Ongoing	Every 5 years or as required	UNE, LNE	2.3.3	Review of mineral and petroleum objections over FMZ 2 and FMZ 3 lands every five years or as required and land may be added to the dedicated reserve system.	No reporting required The FMZ assessment involved DMR and used, for the first time, the SCA reserve category. The SCA category, and ongoing DMR involvement in the FMZ assessment process has considered some land with mineral interests for transfer to the NPWS reserve system, being limited to those that met certain criteria (e.g. size, adjoining a national park). The FMZ assessment process has facilitated and informed a review of some FMZ areas with mineral interests. For instance, the review of FMZ lands which was carried out in 2002 identified the DMR position over many State forest areas which, because of leasehold tenure, could not be transferred to NPWS until the Service was able to voluntarily acquire those leases. FMZ 2 and 3a areas not considered as part of the FMZ Assessment, are still to be addressed. At 30 June 2003, these areas had yet to be finalised.

Due date	Region	FA section*	Milestone	Progress
Ongoing	UNE, LNE, Eden	2.3.1 6.16.2 6.16.1 (E)	Consult with DMR when upgrading FMZ 3 to FMZ 2 and purchase of leases.	<p>In progress – UNE/LNE region</p> <p>The upgrading of FMZ 3 areas to FMZ 2 is covered in the SFNSW Operational Circulars 99/10 'Managing our forests sustainable Forest Management Zoning in State Forests NSW' and 01/02 'Guidelines for using FMZ system'.</p> <p>This upgrading process was dealt with, in part, by the FMZ Assessment for some FMZ 3a areas. No leases purchased on FMZ 3a areas which would allow for them to be upgraded to FMZ 2. Further action is required for the remaining FMZ 3a areas. At 30 June 2003, these areas were under consideration.</p> <p>No reporting required – Eden region</p> <p>No specific discussions have occurred for areas in the Eden region.</p>
Mineral and petroleum interests				
2007	30 April and every 5 year review	Sthn	2.3.3	<p>Review of mineral and petroleum objections over FMZ 2 and FMZ 3 lands.</p> <p>No reporting required Milestone not due until 2007.</p>
Crown reserves				
1999	30 September	UNE, LNE, Eden	2.3.3	<p>Complete</p> <p>A MOU regarding the management of Crown reserves dedicated for the purposes of public recreation, conservation and mineral and petroleum exploration was signed in March 2001 between the Directors-General of the NPWS and DMR. However, in 2002/2003, 21 Crown reserves were reclassified as SCAs. This included all Crown reserves in the UNE (9), LNE (2) and Eden (1) regions, and nine of the 15 Crown reserves in the Southern region. Subsequently, the Directors-General of the NPWS and DMR entered into a further MOU, in November 2002, recording the understanding and agreement of the two agencies with respect to assessment or exploration, mining and petroleum production and the conservation of natural and cultural values in SCAs. Associated guidelines were also agreed between the two agencies and with input from various stakeholders, including the Nature Conservation Council and the NSW Minerals Council. The MOU on SCAs also includes a process for review of SCAs and remaining Crown reserves every five years. The intent being that, every five years DMR must provide reasons why a SCA can not be upgraded to a national park or nature reserve.</p>
1999	30 September	UNE, LNE, Eden	2.3.3	<p>Deferred</p> <p>Formation of a management committee regarding the management of Crown reserves.</p> <p>Refer to milestone above.</p>
2002	30 June	Sthn	2.3.3	<p>Deferred</p> <p>Formation of a committee to advise the Manager of the Reserve Trust on the matters specified in the MOU concerning Crown Reserves.</p> <p>Refer to milestone above.</p>

Due date		Region	FA section*	Milestone	Progress
Ongoing	Every 5 years	UNE, LNE, Eden	2.3.3	NPWS and DMR to review Crown reserves every five years, any areas no longer required for mineral interests must be dedicated under the <i>National Parks and Wildlife Act 1974</i> with concurrence of DMR.	Deferred Review effectively being undertaken as part of the process considering the reclassification of Crown reserves as SCAs.
2007	30 April and each 5 year period	Sthn	2.3.3	Undertaking of a review of Crown Reserves every five years.	No reporting required Milestone not due until 2007.
2002	1 January	Eden	2.3.3	Preparation of plans of management for Crown reserves which are adjacent to land dedicated or reserved under the <i>National Parks and Wildlife Act 1974</i> .	Deferred SCAs are a new reserve category under the <i>National Parks and Wildlife Act</i> , which was created with the passage of the National Parks and Wildlife Amendment Bill in 2001. Similar to the intention of the Crown reserve land use category (under the <i>Crown Lands Act 1989</i>) which was established through the NSW forest agreement process, the SCA category allows an area to be managed for its natural and cultural heritage values by NPWS, whilst also allowing the mineral potential of that area to be explored and, if required, for mining activities to occur. The reclassification of the lands as SCAs removed the principal anomaly which, to date, has prevented plans of management being prepared. This anomaly being that legislation under which Crown reserves were established did not allow for the responsibility (and therefore plans of management) to rest with the Minister for the Environment. As this issue is now resolved, plans of management for SCAs will now be prepared progressively. Progress on the development of these plans will be reported annually. The process and timing of preparation of plans of management for the remaining Crown reserves had not been established at 30 June 2003.
2005	1 January	UNE, LNE	2.3.3	Preparation of plans of management for Crown reserves which are adjacent to land dedicated or reserved under the <i>National Parks and Wildlife Act 1974</i> .	Deferred Refer to milestone above.
2006	31 January	Sthn	2.3.3	Preparation of plans of management for Crown Reserves.	Deferred Refer to milestone above.
Crown land					
2003	1 January	UNE, LNE	6.16.2	NPWS to assess forest conservation values on remaining vacant Crown land in consultation with the DLWC, DMR and other relevant stakeholders.	In progress The NPWS' review, in consultation with the DLWC and DMR and other relevant stakeholders, of the conservation values of vacant Crown land continued during 2002/2003. Agreed areas are to be transferred to the reserve system following discussions with stakeholders and voluntary acquisition of leases has occurred. At the end of the reporting period, 40 000 hectares of high conservation value vacant Crown land had been added to the NPWS estate in north east New South Wales. A further 38 000 hectares had been referred to DLWC to consider the various constraints which apply to it, including licences that affect it. The gazettal of some of the land is scheduled for December 2003.

Due date	Region	FA section*	Milestone	Progress
COOPERATIVE APPROACHES FOR THREATENED SPECIES MANAGEMENT				
Assessment of species				
1999	30 June	UNE, LNE, Eden	2.4.4.3 Implementation of a process to assess conservation requirements in relation to important new information concerning the biology and ecology of a species and/or effectiveness of licence conditions.	<p>Implemented</p> <p>A process was implemented in 1999/2000 and mirrors that adopted for species newly listed in schedules of the <i>Threatened Species Conservation Act</i> (stipulated in Condition 1.3 of Appendix B in the IFOAs for the UNE, LNE and Eden regions).</p> <p>In 2001/2002 this process was applied when SFNSW undertook a study into the home range and habitat requirements of the brush-tailed phascogale in the SFNSW Mid North Coast Region (situated across part of the UNE and LNE regions). The outcome of this study, and on advice from the NPWS, was the development of a new prescription in the Threatened Species Licences, formalised by amendment 2 to the IFOAs for the UNE, LNE and Eden regions (commenced 3 May 2003). There were no further requirements for the process to be implemented during 2002/2003.</p> <p>Processes to assess conservation requirements in relation to important new information about the biology and ecology of a species and the effectiveness of licence conditions were implemented in the UNE, LNE and Eden regions in 1999 and in the Southern region in 2002. These processes are provided in the Threatened Species Licences, made under the <i>Threatened Species Conservation Act</i>, for each region.</p> <p>A process was also in place for the review of flora and fauna conditions of the Threatened Species Licences. This process includes the exchange and assessment of new information by the NPWS, SFNSW and, where appropriate, independent experts. Recommendations made from such reviews are provided to the relevant Ministers for approval as they arise.</p>
Ongoing		UNE, LNE, Eden	2.4.4.3 Review of particular Threatened Species Licence conditions in light of new information on the distribution, population size or ecology of a threatened flora species.	<p>Implemented</p> <p>Refer to milestone above.</p>
Ongoing		Sthn	2.4.5.4 New information is to be assessed, and where required Threatened Species Licence is reviewed and IFOA amended.	<p>Implemented</p> <p>Refer to milestone above.</p>
Ongoing		Sthn	2.4.5.4 Where new information on the distribution, population size or ecology of threatened flora and fauna suggests that the species allocation to a particular condition of the Threatened Species Licence needs to be reviewed, NPWS and SFNSW will undertake such a review.	<p>Implemented</p> <p>Refer to milestone above.</p>
Ongoing		UNE, LNE, Eden	2.4.4.2 Details the process to be followed when an important new record of a species in the area is found.	<p>Implemented</p> <p>Process has been established and has been included in the IFOAs.</p>

Due date		Region	FA section*	Milestone	Progress
Ongoing		UNE, LNE, Eden	2.4.3 2.4.4.1	Agencies to notify each other of any proposal to nominate for listing or de-listing of any species, populations, ecological communities or key threatening processes. The IFOA provides a review process to deal with changes to threatened species schedules.	<p>Implemented</p> <p>SFNSW process included in provisions of the IFOAs.</p> <p>NPWS routinely notifies SFNSW of preliminary and final determinations made by the Scientific Committee for the listing of species in schedules of the <i>Threatened Species Conservation Act</i>. NPWS is not permitted to provide information on non-NPWS proposals for listings or de-listings until the Scientific Committee has made at least a preliminary determination. During 2002/2003, the NPWS advised SFNSW of a number of listing the schedules of the <i>Threatened Species Conservation Act</i>, including: flora species, <i>Pomaderris notata</i> and <i>Boronia granitica</i> as vulnerable, <i>Oberonia complanata</i> and <i>Correa lawrenciana</i> as endangered, and fauna species, <i>Litoria daviesae</i> (tree frog) as vulnerable and the stuttering frog as endangered.</p> <p>Final determinations can be found on NPWS website: http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Final+determinations</p>
Ongoing		Sthn	2.4.4	Notify NPWS/SFNSW of listing and delisting of threatened species, populations, etc and review IFOA for changes to schedules on Threatened Species Licence.	<p>Implemented</p> <p>See milestone above.</p>
Ongoing		Sthn	2.4.5.1	Review IFOA for changes to schedules on Threatened Species Licence.	<p>Implemented</p> <p>See milestone above.</p>
1999	1 October	UNE, LNE, Eden	2.4.4.2	Development of a process for the assessment of new records of threatened species, populations and ecological communities not already covered by licences, whereby the conservation requirements of the species are assessed.	<p>Implemented</p> <p>Process mirrors that adopted for species newly listed in schedules of the <i>Threatened Species Conservation Act</i> (stipulated in Condition 1.3 of Appendix B in the UNE, LNE and Eden IFOAs and also Appendix C in the Southern IFOA). Whenever the Scientific Committee makes a final determination to list a threatened species, populations and ecological communities not already covered by licences and considered likely to occur on State forest and be affected by logging activities, NPWS advises SFNSW of the determination and the need to comply with condition 1.2 of the Threatened Species Licence. SFNSW receive regular NPWS Wildlife Atlas updates of all threatened species under their data licence. When SFNSW is planning logging operations, if a newly listed species is present in the compartment, then SFNSW contact the relevant NPWS office to develop an appropriate condition. NPWS then assesses the conservation requirements of the species and advises SFNSW of an appropriate condition. Endangered populations and ecological communities are not covered by the Threatened Species Licence, so SFNSW is not authorised to conduct activities that may affect endangered populations and ecological communities.</p> <p>The process was not required to be implemented during 2002/2003.</p>
Ongoing		Sthn	2.4.5.3	Implement stated process where important new record was discovered in an area.	<p>Implemented</p> <p>Refer to milestone above.</p>

Due date	Region	FA section*	Milestone	Progress
Ongoing	Sthn	2.4.5.3	Conservation requirements must be developed and implemented for new records of threatened species, populations and ecological populations and IFOA must be reviewed.	Implemented Refer to milestone above.
Ongoing	UNE, LNE, Eden	2.4.4.1	A process must be developed and implemented whereby the conservation requirements of a species new to science are assessed. The IFOA provides a review mechanism.	Implemented Process mirrors that adopted for species newly listed in schedules of the <i>Threatened Species Conservation Act</i> (stipulated in condition 1.3, Appendix B in the UNE, LNE and Eden regions IFOAs (also Appendix C in the Southern IFOA). Whenever the Scientific Committee makes a final determination to list a threatened species, populations and ecological communities not already covered by licences and considered likely to occur on State forest and be affected by logging activities, NPWS advises SFNSW of the determination and the need to comply with condition 1.2 of the Threatened Species Licence. SFNSW receive regular NPWS Wildlife Atlas updates of all threatened species under their data licence. When SFNSW is planning logging operations, if a newly listed species is present in the compartment, then SFNSW contact the relevant NPWS office to develop an appropriate condition. NPWS then assesses the conservation requirements of the species and advises SFNSW of an appropriate condition. The process was not required to be implemented during 2002/2003.
Ongoing	UNE, LNE, Eden	2.4.4.1	Details the process to be followed when a species new to science is found.	Implemented Process has been established and has been included in the IFOAs. Refer to milestone above.
Ongoing	Sthn	2.4.5.2	Implement stated process when species new to science are found.	Implemented Process has been established and has been included in the IFOAs. Refer to milestone above.
Ongoing	Sthn	2.4.5.2	Conservation requirements must be developed and implemented for species new to science and IFOA must be reviewed.	Implemented Process has been established and has been included in the IFOAs. Refer to milestone above.
Ongoing	UNE, LNE, Eden	2.4.3	Cooperation over non-licence components of the <i>Threatened Species Conservation Act 1995</i> , such as nomination of species, populations, ecological communities and key threatening processes, recovery plans, threat abatement plans and critical habitat.	Implemented For non-licence components of the <i>Threatened Species Conservation Act</i> , inter-agency cooperation occurs as required. This includes nomination of species, populations, ecological communities, key threatening processes and critical habitat.

Due date	Region	FA section*	Milestone	Progress	
Ongoing	Sthn	2.4.4	Preparation of cooperative approaches for non-licence components of the <i>Threatened Species Conservation Act 1995</i> and <i>Fisheries Management Act 1994</i> such as nomination of species, populations, ecological communities and key threatening processes, recovery plans, threat abatement plans and critical habitat.	Implemented See milestone above.	
Management and recovery planning					
1999	31 December	UNE, LNE	2.4.3	Refinement of models to identify Hastings River Mouse habitat.	Complete Refinement of micro-habitat models for the Hastings River mouse was completed before the signing of the IFOAs in 1999. Further analysis of the results of the research and review program has continued with further studies underway to increase scientific knowledge of the species. Refinement of the models has been identified as an action in the publicly exhibited draft recovery plan for the species (at 30 June 2003 the plan had yet to be approved). The draft recovery plan for the Hastings River mouse also proposes that predictive habitat modelling should be used in conjunction with genetic studies to map and then manage boundaries of individual populations.
Ongoing		UNE, LNE, Eden	2.4.3	Continued implementation of joint management plans such as Pine Creek Koala Management Plan.	Implemented Cooperation between SFNSW and the NPWS, as well as other agencies, is continuing as necessary. This includes the preparation of various recovery plans and threat abatement plans, lead by the NPWS. SFNSW is involved in the preparation and implementation of these plans through the provision of expertise, representation on recovery teams, implementation of specific actions and consultation during the drafting and public exhibition of plans. Examples of cooperation between the two agencies have included the development of the Pine Creek Koala Management Plan (SFNSW, 1999b) and the Threat Abatement Plan for Predation by the Red Fox (NPWS, 2001b), as well as recovery plans for Nightcap Oak, Hasting River mouse and yellow-bellied glider (among others).
Pest, weed and feral animal control					
1999	All	UNE, LNE, Eden	6.16.3	Wild dog control using 1080 baiting on lands managed by the <i>National Parks and Wildlife Act 1974</i> where SFNSW has given approval.	Complete Bating was underway throughout 1999 on lands transferred to the NPWS estate where SFNSW had given approval for such works to be undertaken. Baiting continues in accordance with NPWS regional pest management strategies.
2005	1 April	UNE, LNE, Eden	2.4.2	Preparation of gazing management plans, predator and feral control plans and threatened flora species management plans.	In progress SFNSW is continuing to develop, in consultation with the NPWS, flora monitoring plans in accordance with condition 6.27 of the Threatened Species Licences for the UNE and LNE regions. Thirteen flora species are listed as being subject to this condition, for which separate plans are prepared for each species as required. Approved monitoring plans (by the NPWS) include those for, <i>Amorpha sp.</i> , <i>Eucalyptus glaucina</i> , <i>Parsonsia dorrigoensis</i> , <i>Pultenaea campbellii</i> and broad-leaved pepperbush. Plans for the remaining species will be developed as needed. The monitoring of flora species required by each plan is the responsibility of SFNSW with results reported to the NPWS at specified intervals. Due to the recent implementation of the plans, no results have yet been formally reported. Flora monitoring plans are not specifically required for the Eden and Southern regions. Although, flora monitoring requirements are specified in conditions of the Threatened Species Licences for both regions.

Due date		Region	FA section*	Milestone	Progress
					<p>SFNSW also continued refining model management plans for weeds, feral animals and grazing throughout 2002/2003. It is expected the plan for weeds will be finalised and submitted to RACD of PlanningNSW for approval in 2004. Subsequent to this SFNSW Regions will develop region-specific plans based on the model management plan.</p> <p>The NPWS is continuing its program of recovery and threat abatement planning, which includes the management of pests, weeds and feral animals.</p>
2006	31 July	Sthn	2.4.3	Preparation of grazing management plans and feral and introduced predator control plans.	<p>In progress</p> <p>Refer to milestone above.</p>
Ongoing		UNE, LNE	2.12	Cooperative programs in addressing noxious weed control, feral animal control and other matter relating to forest health.	<p>Implemented</p> <p>At 30 June 2003, the NPWS was engaged in 320 programs across the State in cooperation with a variety of landholders and land management agencies and interest groups for the management of pest animals and various weed species. The NPWS integrates pest animal and weed control programs into plans of management, recovery plans and threat abatement plans.</p> <p>Regional pest management strategies have been prepared by the NPWS for all five NPWS Regions in its Northern Directorate. In the Eden region, cooperative weed and pest management programs have been established directly with SFNSW and the NPWS, and indirectly via the South East Catchment Board with Bega and Bombala Shire Councils, DLWC and private landholders. Both NPWS and SFNSW are involved in the development of cooperative wild dog and fox management plans which will cover the entire Eden region.</p> <p>SFNSW participates in local Weed Management Committees and works in close cooperation with rural lands protection boards and wild dog associations in determining local control priorities and cooperative control programs. Details of these arrangements will be listed in the Regional ESFM Supplementary Plans – Weed Management Plan and Pest Animal Control Plan (when finalised).</p> <p>The NPWS and SFNSW are both represented in a Forest Health Advisory Committee, established under the terms of the joint State and Federal Ministerial Council Generic Incursion Management Plan. The purpose of the committee is to provide a forum for those who own or manage forests or forested areas to discuss and give advice on policy and action on all matters pertaining to the health of the forests.</p>
Ongoing		Sthn	2.12	NPWS and SFNSW must participate in cooperative programs where a broader landscape approach is most effective in addressing noxious weed control, feral animal control or other matters relating to forest health.	<p>Implemented</p> <p>NPWS regional pest management strategies have been completed for the NPWS South Coast and South West Slopes Regions, and cooperative wild dog/fox management plans developed between the Rural Lands Protection Board, SFNSW and the NPWS in the NPWS Snowy Mountains Region.</p>
2007	30 April	Sthn	Att 6(2m)	Incorporate into Regional ESFM Plans and plans of management under the <i>National Parks and Wildlife Act 1974</i> integrated feral animal and weed control programs.	<p>No reporting required</p> <p>Milestone not due until 2007.</p>

Due date	Region	FA section*	Milestone	Progress
PRIVATE LAND				
Regional Native Vegetation Committee				
1999	30 June	Eden	2.8.1	<p>Complete</p> <p>The first meeting of the Committee was held in October 2000, with representatives from PlanningNSW, NPWS, SFNSW and DLWC. An outcome of this meeting was for members to identify current voluntary conservation mechanisms and financial incentives available to promote conservation on private land.</p> <p>Following the establishment of the Eden Regional Forest Agreement, an allocation of \$2 million was provided to fund a range of initiatives for the voluntary conservation on private land of priority ecosystems. The funds have assisted with the development of a 'voluntary biological diversity conservation strategy' by the NPWS, DLWC and the South East Catchment Management Board, and the establishment of a local management team to implement it. Other groups working with the NPWS, DLWC and the South East Catchment Management Board include: the Bega Valley Shire Council, NSW Agriculture, the Far South Coast and Towamba River Landcare Associations and the Bega Environment Network. The Local Management Team is working to reduce the complexities of incentive available to private land holders by promoting cooperative approaches between local groups, organisations and authorities (NPWS, 2002).</p>
2000	1 January	UNE, LNE	2.9.1	<p>Complete</p> <p>Refer to milestone above.</p>
2002	30 June	Sthn	2.9	<p>Complete</p> <p>Refer to milestone above.</p>
Regional Vegetation Management Plans				
Ongoing	Sthn	Att 6(2e) Att 6(3) point 4	Establishment of Regional Vegetation Management Plans under the <i>Native Vegetation Conservation Act 1997</i> ; to cover private lands and form a basis for strategic regional planning of private native forestry.	<p>Implemented</p> <p>Plans being prepared as required under the <i>Native Vegetation Conservation Act</i>.</p>
Identification of lands of conservation priority				
2000	1 January	UNE, LNE	2.9.1	<p>Deferred</p> <p>The identification of forest ecosystems on private land for inclusion in the CAR reserve system requires the completion and incorporation of CRAFTI data into regional databases. Revision of CRAFTI linework for UNE region was completed in August 2000 and for LNE region in December 2000. Refinement of CRAFTI data provides a basis for derivation of forest growth stage, ecosystem modelling and predictive modelling of species habitat across all tenures. The NPWS received draft updated soils landscape mapping from DLWC in January 2003 to contribute to the process. At the end</p>

Due date		Region	FA section*	Milestone	Progress
					of the reporting period, deficiencies were being rectified by DLWC. Once completed, this derived information will provide spatially accurate data for private land and will assist the completion of a range of government programs, including regional vegetation management plans and the NSW Biodiversity Strategy (NPWS, 1999a). In the meantime, the NPWS has derived an interim data layer and provided this to regional vegetation committees and catchment management boards.
2002	30 June	Sthn	2.9	Identification of forest ecosystems on private land that are a conservation priority for inclusion in the CAR reserve system.	In progress Priority forest ecosystems for voluntary protection on private land are identified in Attachment 2 of the Southern RFA. Specific progress for the Southern region was not available for this report.
Voluntary conservation mechanisms					
Ongoing		UNE, LNE, Eden	2.9.1 2.8.1 (E) Att 7	Principles applying to land and voluntary mechanisms that may be applied to achieve conservation on private land (e.g. VCAs, property agreements, management contracts etc.).	Implemented Voluntary mechanisms (such as VCAs) and principles that may assist to achieve conservation on private land are being applied.
Ongoing		Sthn	2.9 Att 5	Voluntary conservation of private land, where conservation values either do not occur on public land or are not adequately reserved on public land. According to principles in Attachment 5.	Implemented Voluntary mechanisms (such as VCAs) and principles that may assist to achieve conservation on private land are being applied.
Private native forestry and plantations					
2007	30 April	Sthn	Att 6(3) point 3	Codes of Practice for private plantations and private native forests will be in place within five years. The State will also provide advice regarding marketing and pricing.	In progress The Interim Best Operating Standards for Harvesting of Private Native Forestry, under the <i>Native Vegetation Conservation Act</i> were released in June 2001. The Standards replaced the existing draft Best Management Principles and other standards used by vegetation officers. The standards were prepared to guide forestry operations on private land requiring consent. In April 2002, a Private Native Forestry Reference Group was established to examine the regulation of forestry on private land and make recommendations for a workable exemption and consent framework and accepted by the NSW Government in September 2002. DLWC has since been progressively implementing the recommendations, including the development of a draft Exemption Operations Standard (for forest operations that may be undertaken without consent) and a Forest Operations Standard (to guide operations where consent is required).
Ongoing		Sthn	Att 6(3) point 2	As a means of encouraging private forestry development, the State will develop a regulatory framework that enables a more efficient integrated approval process to allow for effective private forestry development.	In progress Refer to milestone above.

Due date		Region	FA section*	Milestone	Progress
2001	Code commenced 14 December	Sthn	Att 6(3) point 5	NSW will ensure that an integrated Code of Practice is developed for plantation activities across all tenures, under the <i>Plantations and Reafforestation Act 1999</i> . Existing plantations can also continue to obtain certainty for the purposes of harvesting as per the <i>Timber Plantations (Harvest Guarantee) Act 1995</i> , and similar provisions included in the <i>Plantations and Reafforestation Act</i> .	<p>Implemented</p> <p>The <i>Plantations and Reafforestation Act</i> and Plantations and Reafforestation (Code) Regulation 2001 came into effect in December 2001. The <i>Plantations and Reafforestation Act</i> superseded the <i>Timber Plantations (Harvest Guarantee) Act</i>. The Act aims to promote plantation establishment and streamline the approval process. Whilst the Code contains clearer standards for plantation establishment, including clearly specifying conditions for: a) planning and approval; b) plantation establishment, management and harvesting operations; c) protection of various land values, such as soil and water, cultural heritage and biodiversity; d) management of retained areas; e) standards for the construction and maintenance of log dumps, roads and crossings (DIPNR, 2004a).</p> <p>Between December 2001 and December 2003, about 160 plantations were authorised, covering about 15 800 hectares across New South Wales (DIPNR, 2004b).</p> <p>The Act and Code are due for review in 2004.</p>
Ongoing		Sthn	2.2.3	For activities regulated under the <i>Plantations and Reafforestation Act 1999</i> plans must be prepared as required in the Plantations and Reafforestation (Code) regulation 2001.	<p>Implemented</p> <p>Refer to milestone above.</p>
Ongoing		Sthn	Att 6(3) point 4	With appropriate public involvement, and consistent with the <i>Native Vegetation Conservation Act 1997</i> , the Regional Vegetation Management Committees will pursue planning policies that provide for appropriate long term, secure, management provisions for private native forests including harvesting for commercial wood production.	<p>In progress</p> <p>Appropriate public involvement, consistent with the <i>Native Vegetation Conservation Act</i>, is being pursued.</p>
Ongoing		Sthn	Att 6(3)	Improve administrative arrangements and cooperation and coordination by State agencies to facilitate the timber industry utilising private forest resources.	<p>No reporting required</p> <p>No progress on this milestone was made during 2002/2003. Actions to complete this milestone are to be underway in 2003/2004.</p>
Ongoing		Sthn	Att 6(3) point 1	Arrangements to ensure ESFM on private forests involving the provision of technical advice, extension services, research and assistance in the estimation of Sustainable Yield.	<p>In progress</p> <p>Under development. Likely to be incorporated into development of code of practice for private native forestry.</p>
Ongoing		Sthn	Att 6(4)	Undertake a private forest inventory of southern NSW to determine the basis of yield of wood products from private land is required, with the agreement of forest owner groups.	<p>In progress</p> <p>Development of this milestone is underway. Further details will be available for future reports.</p>

Due date	Region	FA section*	Milestone	Progress
World Heritage and Wilderness				
2000	1 January	UNE, LNE	2.5	Public exhibition of wilderness assessment report for the UNE and LNE regions.
				<p>Complete</p> <p>The Northern Wilderness Assessment Report (NPWS, 2001) was exhibited in mid 2001. Following the public exhibition period, recommendations were made to the Minister for the Environment on wilderness declarations.</p> <p>On 19 February 2003, 151 000 hectares of wilderness were declared in northern New South Wales. This included seven new wilderness areas created: Levers, Bundjalung, Banyabba, Cathedral Rock, Carrai, Mount Seaview and Limeburners Creek wilderness areas. The declarations also included additions to the Washpool, Bindery-Mann, Guy Fawkes, New England, Macleay Gorges, Kunderang, Willi Willi and Barrington wilderness areas. These declarations were formally gazetted on 21 March 2003.</p>
2002	31 December	Sthn	2.5	NPWS must provide advice to the Minister administering the <i>National Parks and Wildlife Act 1974</i> on the submissions received during public consultation and the areas recommended for wilderness declaration.
				<p>Complete</p> <p>The NPWS provided advice to the Minister for the Environment about the 27 500 submissions received during the public exhibition of the Southern Wilderness Assessment Report (NPWS, 2000).</p>
Ongoing		UNE, LNE	Att 8	Make subsequent decisions on the declaration and management as wilderness of areas of the CAR reserve system provisionally identified as wilderness during the regional forest assessment.
				<p>Complete</p> <p>The Minister for the Environment declared, on 19 February 2003, 122 000 hectares of wilderness were declared in Southern New South Wales. Seven new wilderness areas were created: West Ettrema, Buckenbowra, Woila Deua, Tuross, Bramina, Indi and Western Fall wilderness areas. The declarations also included additions to the Ettrema, Bogong Peaks, Goobarragandra, Bimberi, Jagungal, Pilot and Byadbo wilderness areas. These declarations were formally gazetted on 21 March 2003.</p>
2001	1 April	UNE, LNE	2.7	Review of CERRA World Heritage Areas to identify any additional rainforest to be included.
				<p>In progress</p> <p>Potential additions to the World Heritage Register located in the UNE and LNE regions were deferred by CERRA Committee in 2000, pending the establishment of an independent advisory committee. The committee, the CERRA World Heritage Property TSAC, has since been formed and has recommended expansion of CERRA by about 10% of the current CERRA area. The Minister for the Environment has indicated support for this pragmatic approach as long as whole reserves or contiguous areas are considered. The NPWS will work with the TSAC to develop criteria and to produce a prioritised output unconstrained by areal considerations. The priorities will then be developed into options for consideration by the Australian Government. TSAC also recommended that work commence on necessary cultural heritage assessments, however, no actual assessments were undertaken during 2002/2003. Pending finalisation of the processes and criteria required under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 for listing on the National Heritage List, no further studies of the dedicated reserve system in the UNE, LNE and Eden regions are planned at present.</p> <p>Further information on CERRA is available through the Australian Government Department of Environment and Heritage website: http://www.deh.gov.au</p>

Due date		Region	FA section*	Milestone	Progress
2002	1 April	UNE, LNE, Eden	2.7 2.6 (E)	Further studies of the dedicated reserve system to identify World Heritage values, including eucalypt dominant vegetation and religious beliefs embedded in the landscape.	In progress See milestone above.
2004	30 April	Sthn	2.7	Studies of the dedicated reserve system to identify World Heritage values.	In progress See milestone above.
Cultural heritage					
1999	1 October	UNE, LNE, Eden	2.8 2.7 (E)	Cultural heritage management guidelines for SFNSW to be attached to the IFOA.	Complete Attached to the UNE, LNE and Eden regions IFOAs. Guidelines were developed with reference to the CRA/RFA report Protecting Cultural Heritage Values and Places in NSW Forests (Kinhill, 1999) describing planning, operation, monitoring and review processes for managing cultural heritage.
2002	30 June	Sthn	2.8	SFNSW cultural heritage management guidelines should be attached to the IFOA.	Complete SFNSW cultural heritage management guidelines have been attached to the Southern Region IFOA.
1999	1 April	UNE, LNE, Eden	2.8 2.7 (E)	NPWS to review its cultural heritage guidelines and ensure consistency with the principles contained in CRA project reports prepared by the Cultural Heritage Working Group (2000 a and b).	Complete Cultural heritage policies endorsed by the NPWS Executive include its Cultural Heritage Strategic Policy, Consultation Policy, Cultural Heritage Information Policy and Guidelines for the Assessment of Impact on Heritage Places. These policies are consistent with the principles contained in the CRA/RFA project reports; Protective Mechanisms for Cultural Heritage–Generic Version (Cultural Heritage Working Group, 2000a) and Protective Mechanisms for Cultural Heritage–Lower North East Region (Cultural Heritage Working Group, 2000b). Ongoing review of NPWS statewide guidelines is also consistent with the principles contained in the abovementioned reports.
2001	1 April	UNE, LNE, Eden	2.8 2.7 (E)	Finalisation of SFNSW policy on Indigenous and Non-indigenous cultural heritage.	Draft SFNSW policy on indigenous and non-indigenous cultural heritage is nearing finalisation. The draft policy was incorporated into the draft Regional ESFM Plans which outlined strategies for the protection and management of cultural heritage. The final policy will be released with the final Regional ESFM Plans to be finalised by December 2005. SFNSW NFEMS also includes policies on cultural heritage, protection of indigenous interests and values and protection of non-indigenous cultural heritage. These documents have been reviewed with regional stakeholders such as local aboriginal land councils, Elders groups, conservation groups and comment received from interested individuals.
2002	31 August	Sthn	2.8	Finalisation of policy on Aboriginal and Non-Aboriginal cultural heritage (SFNSW).	Draft See milestone above.

Due date		Region	FA section*	Milestone	Progress
Annually		UNE, LNE, Eden Sthn	2.8 2.7 (E)	Report on cultural heritage performance through annual report, State of the Environment reports that publish against performance indicators and provide access to the outcomes of performance reviews.	Implemented The NPWS and SFNSW continue to contribute significant information to the ESFM Criteria and Indicators Monitoring reports each year, which includes cultural heritage indicators. The NPWS' cultural heritage performance and achievements are outlined in its annual report each financial year. More detailed performance indicators for cultural heritage are also being developed by the NPWS as part of its <i>State of the Parks</i> reporting. These indicators were trialled in 2002/2003. The next <i>State of the Parks</i> report will be released in early 2005. Cultural heritage performance by SFNSW is reported at a corporate level each year through its <i>SEEing</i> report. The performance indicators are the basis for reporting in the <i>SEEing</i> report and are being incorporated into ESFM planning and reporting.
Ongoing	1999	UNE, LNE, Eden	Att 8	Manage cultural values, both Aboriginal and non-Aboriginal, according to guidelines.	Implemented The NPWS manage cultural values according to its legislative responsibilities and existing statewide policies and guidelines. These include a Cultural Heritage Strategic Policy, Consultation Policy, Cultural Heritage Information Policy and Guidelines for the Assessment of Impact on Heritage Places. SFNSW follow cultural heritage guidelines attached to each IFOAs.
Ongoing		Sthn	2.8	Apply cultural heritage management guidelines when managing cultural heritage.	Implemented See milestone above.
2005	31 December	Sthn	5.1.4.5	All NPWS staff located in the Southern Directorate be provided with adequate cultural awareness training to improve customer relations with Aboriginal communities.	Implemented Cultural awareness training is being provided to all NPWS staff in its Southern Directorate.

Places of cultural significance

Ongoing		UNE, LNE, Eden Sthn	2.8 2.7 (E)	Updating of section 170 register, sites of state significance will also be listed.	Implemented The NPWS commenced use of a new HHIMS in August 2002 that replaced the NPWS Historic Places Register. The system contains more, and better linked information on NPWS heritage assets, allowing field staff and consultants to add or amend information related to heritage items they manage and also incorporates necessary technology such as geographic information systems into the database. The system was updated as necessary during 2002/2003.
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Places of Aboriginal cultural significance

2001	1 April	UNE, LNE, Eden	2.8 2.7 (E)	NPWS to review indigenous cultural heritage management processes to provide a landscape-based system.	Implemented The integration of natural and cultural values in the landscape is a goal of the NPWS. To assist NPWS staff, and the consultants and contractors NPWS employs, in managing NPWS cultural heritage responsibilities, strategic, information, community consultation and other policies form part of a broader package aimed at better integrating cultural heritage into NPWS conservation objectives and operations. Generally, therefore, NPWS management processes for both natural and cultural heritage, through management planning and impact assessment, are taking a landscape
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Due date		Region	FA section*	Milestone	Progress
					approach as recommended in Visions for the New Millennium (NPWS, 1998) and the NPWS Corporate Plan. Aboriginal cultural heritage processes for consents and permits was being reviewed at the end of 2002/2003, in part, to ensure a more landscape approach is adopted, and to consider broadening the scope of cultural heritage values identified and assessed, and the impact on these values, rather than focusing on just the archaeological significance of a site in isolation from the rest of the landscape.
2005	31 August	Sthn	2.8	NPWS to review processes for Aboriginal cultural heritage management.	Implemented See milestone above.
Due date		Region	FA section*	Milestone	Progress
Ongoing		UNE, LNE	5.1.1	NPWS to conduct a preliminary assessment of all new parks to identify priority areas that could be added to Schedule 14 of the <i>National Parks and Wildlife Act 1974</i> .	In progress Guidelines have been developed for the assessment of all parks to determine their inclusion in Schedule 14 of the <i>National Parks and Wildlife Act</i> . Although no preliminary assessments have been undertaken to date, the NPWS continues to respond to nominations proposed by Aboriginal communities as they occur.
2006	31 December	Sthn	5.1.1	Assessment of all parks to determine if any could be added to Schedule 14 of the <i>National Parks and Wildlife Act 1974</i> .	In progress Refer to milestone above. The NPWS South West Slopes Region has completed systematic surveys for Aboriginal cultural heritage features in seven reserves during 2002/2003, including Benambra National Park, Cuumbeun Nature Reserve, Ellerslie Livingstone National Park and Wanna and Dananbilla–Illunie protected area network. Numerous artefacts, sites and other structures were recorded as a consequence of these studies, all of which have been registered on the NPWS AHIMS. A number of Aboriginal heritage conservation assessments were also undertaken on the NPWS estate and one conservation management plan prepared. Additional activities identifying Aboriginal cultural heritage places, artefacts and sites on the NPWS estate in the Southern region were undertaken in 2002/2003, including: a) post-fire inspections of containment lines prior to rehabilitation works; b) location of unmarked graves at Brungle; and c) preliminary archaeological assessment of Tabletop Nature Reserve.
Ongoing		UNE, LNE, Eden	2.8	NPWS must continue to develop its information management system for indigenous heritage in consultation with Aboriginal communities and other stakeholders (information submitted to the Aboriginal Sites Register).	Implemented The AHIMS was released in July 2001, and has been in use since that time. The development of the AHIMS involved extensive consultation with Aboriginal communities across the State. Its development greatly assisted to improve the accuracy and number of recorded of Aboriginal sites, being the result of increased research and survey activity and community participation providing additional data for the system. The system improves the quality of information on Aboriginal sites, with new Aboriginal site features that record both relics/objects and more broad Aboriginal interpretation of sites.
Ongoing		Sthn	2.8	Preparation of an information management system for Aboriginal heritage including maintenance of Aboriginal Sites Register.	Implemented See milestone above.

Due date		Region	FA section*	Milestone	Progress
2006	31 December	Sthn	5.1.4.3	Creation of a zone to protect Aboriginal cultural heritage, with adequate measures (including buffers) to protect against adverse impacts by forest activities, soil erosion and visitation to sensitive cultural areas.	<p>In progress</p> <p>SFNSW' FMZ system provides for the protection of places with heritage significance by applying 'special values' designation. Aboriginal cultural heritage is protected through case-specific prescriptions incorporated into operational plans. A change of zoning category normally only applies where a site or place is extensive, whereby SFNSW, in consultation with Aboriginal communities, would rezone the forest area if it was concluded to be of a significant size or type to warrant rezoning.</p> <p>The protection of Aboriginal cultural heritage on State forest involves liaison with the Aboriginal community and field identification of known and previously recorded sites. Field investigations are undertaken during planning to identify whether additional sites or objects are present. Aboriginal sites are identified during pre-harvest inspections and prescriptions applied to protect sites. Site locations are not identified publicly. Where sensitive sites are identified restricted access arrangements may be put in place (e.g. closure of tracks or access through locked gates). Site protection measures are developed following liaison with community representatives and incorporated into SFNSW' operational plans. Where potential cultural sites are identified during operations, further activity ceases until the item or place is investigated and a decision made on the appropriate management of the site. Non-Aboriginal heritage protection involves reference to databases, such as s. 170 Heritage and Conservation Register (<i>Heritage Act 1977</i>) and field investigation. Site specific prescriptions ensure protection of values present and incorporated into operational plans.</p>

ABORIGINAL INTERESTS

Aboriginal involvement in forest management

2000	1 April	UNE, LNE, Eden	5.1.3	SFNSW and NPWS each to prepare a strategy to ensure Aboriginal communities and stakeholders are given a greater participatory role in forest management.	<p>In progress</p> <p>A draft joint strategy for the Eden region by the NPWS and SFNSW identifies scope for Aboriginal involvement and access to resources, their input to planning decisions, and Aboriginal employment and industry development. There will be more consultation with the Aboriginal community before the report is finished in December 2003. Delays in finalising the strategy have been, in part, due to the focussing of resources on the Biamanga National Park handback program.</p> <p>A joint strategy for the UNE and LNE regions has not yet been developed.</p> <p>The NPWS has continued to consult with the Bundjalung and Githabul communities in order to improve NPWS management of areas and ensure the agency's sensitivity to cultural issues in the north east regions. For parks in the Far South Coast, including Biamanga and Gulaga national parks, the NPWS continued to release the newsletter Coastal Custodians, a specialist Aboriginal newsletter designed to increase awareness and participation of Aboriginal people in the NPWS estate. The NPWS North Coast Region has employed a cultural heritage project officer who has been working extensively with staff and the local Aboriginal communities to foster better partnerships in the management of Aboriginal cultural heritage. A new Aboriginal identified position has also been created to develop consultation strategies for the NPWS with Aboriginal communities in its Northern Directorate, to ensure that the NPWS builds effective relationships with local communities and engages appropriately with those communities.</p> <p>SFNSW has developed corporate Operational Guidelines for Management of Aboriginal Cultural Heritage on State forests. These guidelines will include consultative arrangements for SFNSW Regions with local Aboriginal communities on forest activities, when communication with the community could be expected, site identified and protected, and a process to review how well these consultative arrangements have worked over the previous period.</p>
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Due date		Region	FA section*	Milestone	Progress
2003	30 June	Sthn	5.1.3	Preparation of a strategy to ensure that Aboriginal communities and stakeholders are given a greater participatory role in forest management.	In progress Refer to milestone above.
2001	1 April	UNE, LNE, Eden	5.1.3	SFNSW to involve Aboriginal communities in the development and finalisation of its policy in relation to Aboriginal involvement in forest management which will form part of the NFMS.	Draft SFNSW policy in relation to Aboriginal involvement in forest management was outlined in its NFEMS - Strategic Framework (publicly exhibited in 2000), in EMS and in Regional ESFM Plan. Specific consultation on the policy occurred with the Aboriginal community resulting in further review and modifications to the final policy. The policy ensures that Aboriginal people will be consulted when operations are planned in proximity to items of Aboriginal cultural heritage. It also provides for economic and cultural opportunities for Aboriginal communities. Consultation over the management of sites can involve on-site inspection. Contracts have been established with land councils and other representative groups to undertake the inspections and the contracts will facilitate payment under agreed arrangements.
2003	30 June	Sthn	5.1.3	SFNSW must involve Aboriginal communities in the development and finalisation of its policy in relation to Aboriginal involvement in forest management, which will form part of the EMS-NFMS.	Draft Refer to milestone above.

Co-management and joint venture arrangements

Ongoing		UNE, LNE, Eden	5.1.1	SFNSW and NPWS must progressively negotiate joint management arrangements and joint ventures with local Aboriginal communities.	Implemented The NPWS had 15 joint management, access or hunting and gathering arrangements with Aboriginal communities in place in the north east regions (UNE and LNE regions) at 30 June 2003. Arrangements in place include the first ILUA in New South Wales, at Arakwal (entered into in 2001/2002). Potential ventures were under discussion with various Aboriginal communities, such as Bundjalung, Nambucca Valley and Arakwal. Members of local Aboriginal communities are also represented on the recently established steering committee for Mount Warning National Park (UNE region) to develop a MOU for the management of this important Aboriginal area. The NPWS has agreed to two formal cultural camps with basic infrastructure to be established on-park under joint management arrangements with local Aboriginal communities. The NPWS has also negotiated a Statement of Joint Intent with the Eden Local Aboriginal Land Council to facilitate support for informal culture camping and cultural activities in other areas throughout the Eden Management Area. Biamanga National Park handback program is continuing with the establishment of negotiating committees and advertising for the appointment of a facilitator to progress lease negotiations. The Office of the Registrar of the <i>Aboriginal Land Rights Act 1983</i> has identified those Aboriginal people with authority to speak for Biamanga Country. Fifteen business partnerships with Aboriginal people are being developed by SFNSW across the State, including the contracting of pre-harvest cultural heritage site inspections and the establishment of a native plant nursery. Joint arrangements continued to be pursued including those at Warre Warren Aboriginal Place (McPherson State Forest), with the Keepa Keepa Elders in Heaton State Forest, and the Anaiwan Elders near Walcha (LNE region). In the Eden region, SFNSW is to involve the Aboriginal community in the review of working plans for flora reserves.
2000	1 April	UNE, LNE	5.1.1	Examination of any State forest that could be considered for co-management and joint venture arrangements.	In progress Refer to milestone above.

Due date		Region	FA section*	Milestone	Progress
Ongoing		UNE, LNE, Eden	5.1.1	Where further analysis indicates the feasibility of other ventures, project plan must be developed for implementation.	Implemented Refer to milestone above
Ongoing		UNE, LNE, Eden	5.1.1	Ventures likely to generate mutual benefits to the Aboriginal, as well as the wider, community must also be considered.	In progress No new ventures were initiated during 2002/2003. The NPWS Aboriginal Discovery Program aims to enhance community appreciation and understanding of Aboriginal cultural heritage and the importance of its protection in the landscape. The NPWS contracts the Aboriginal community to supply Discovery Rangers for the program. In 2001/2002, 39 Aboriginal Discovery Rangers were employed to deliver 1 290 Aboriginal cultural heritage and other educational activities within the program. In the Eden region, as part of the NPWS' Discovery program and in an independent commercial capacity, funds have been directed towards supporting Bega Aboriginal community members in cultural tour operator training to help build the capacity of these communities to deliver high quality tourism products. NPWS also contracts the Aboriginal community to supply Discovery Rangers for cultural activities. Aboriginal land surveys have also been completed and results returned to communities along with a series of management recommendations for their use in future management. An additional funding application will be prepared to implement some of the recommendations of the previous survey work. NPWS will also investigate options for the ongoing management of the Aboriginal lands delivered to communities as part of the Eden Region Forest Agreement.
2006	31 December	Sthn	5.1.1	SFNSW and NPWS must progressively negotiate joint management arrangements and joint ventures with local Aboriginal communities.	In progress In the Southern region, the NPWS South Coast Region is seeking the joint management of Jervis Bay National Park. At 30 June 2003, negotiations had been placed on hold while Aboriginal land claims are being processed.
Annually		Sthn	5.1.1	Annual reporting to RACD on the progress by NPWS and SFNSW on negotiating co-management and joint management arrangements with Aboriginal communities.	In progress Refer to milestone above.
Ongoing		Sthn	5.1.1	Ventures likely to generate mutual benefits to the Aboriginal, as well as the wider, community must also be considered.	In progress Refer to milestone above.
Ongoing		Sthn	5.1.1	Where further analysis indicates the feasibility of other ventures, project plan must be developed for implementation.	In progress Refer to milestone above.
2006	31 December	Sthn	5.1.4.1	Where consideration has identified venture, project plans must be developed for their implementation.	In progress Refer to milestone above.

Due date		Region	FA section*	Milestone	Progress
2004	31 December	Sthn	5.1.1	SFNSW will examine any State forest that could be considered for co-management or joint venture arrangements.	<p>No reporting required</p> <p>Milestone not due until 2004. However, possible ventures are under consideration. To date, Aboriginal people in both the Southern and Eden regions have been involved in commercial firewood operations as an economic venture, where firewood is harvested for re-sale.</p>
Cooperative management arrangements					
2006	31 December	Sthn	5.1.4.1	SFNSW and NPWS must progressively negotiate separate cooperative management agreements with local Aboriginal communities that enable Aboriginal people to be involved in the management of State forests and national parks.	<p>In progress</p> <p>Aboriginal community representatives on Regional Advisory Committees advise the NPWS about park management. In the NPWS South West Slopes Region, a new draft plan of management for Kosciuszko National Park is being prepared. The NPWS has embarked on an extensive community consultative program in preparing the plan, which will shape park management for at least the next 20 years. An Aboriginal working group has also been established which represents the five nations that have had a long association with the mountains over many thousands of years. Aboriginal communities within the region have been actively involved in a range of projects and management activities. Aboriginal community representation, at varying levels, has occurred during all relevant projects undertaken in the region, with about 25 local Aboriginal people involved in on-ground surveys.</p> <p>Co-management arrangements and management planning for Mudjarn Nature Reserve have commenced between the NPWS and the local Aboriginal community at Brungle. The local Aboriginal community was actively involved in the repatriation of remains to Blue Water Holes, Kosciuszko National Park and has been involved in post-fire rehabilitation surveys of fire affected areas, site surveys of fire containment trails, sites training and other archaeological surveys.</p>
2006	31 December	Sthn	5.1.4.1	Explore opportunities for joint ventures with SFNSW and NPWS that promote recognition, awareness and respect for Aboriginal cultural heritage. Other ventures likely to generate mutual benefits to the Aboriginal community must also be considered.	<p>No reporting required</p> <p>Milestone not due till 2006, but is under consideration. Refer also to milestones above.</p>
2006	31 December	Sthn	5.1.4.5	NPWS should enter into a cooperative management agreement with the relevant Aboriginal communities to develop cooperative management and funding strategies to ensure the effective protection and management of Aboriginal cultural heritage on the NPWS estate, subject to funding.	<p>No reporting required</p> <p>Milestone not due till 2006, but is under consideration. Refer also to milestones above.</p>
2006	31 December	Sthn	5.1.4.5	Aboriginal communities consider it a NPWS responsibility to develop and implement a policy in relation to access to parks, nature reserves and other appropriate service estate for traditional purposes. This policy framework will be developed by the Aboriginal Management Committee.	<p>In progress</p> <p>No progress had been made on the development of the policy framework at the end of the reporting period, as the committee had yet to be established. It is expected the committee will be formed by December 2006.</p> <p>However, the NPWS is providing access to Aboriginal people for traditional purposes.</p> <p>Refer to milestones above.</p>

Due date		Region	FA section*	Milestone	Progress
Access for traditional and cultural purposes					
2006	31 December	Sthn	5.1.4.3	Areas of State forest to be identified and set aside for Aboriginal education and specific community activities in accordance with Aboriginal traditional practices. Such areas to be determined and agreed upon by the Aboriginal Management Committees.	No reporting required Milestone not due till 2006, but is under consideration. Refer also to milestones above.
2000	1 April	UNE, LNE, Eden	5.1.1	Preparation of a joint strategy which will include how Aboriginal communities can gain access to materials for traditional/cultural purposes (such as art and craft purposes, food sources and medicine, access to firewood).	Draft - Eden region In progress – UNE and LNE regions A draft joint strategy on Aboriginal access for traditional purposes for the Eden region has been prepared by the NPWS and SFNSW and is expected to be finalised by December 2003 following consultation with the Aboriginal community. Delays in the completion for the strategy have been, in part, due to a focus of NPWS resources on the Biamanga National Park handback program, which was still underway at 30 June 2003. While joint strategies for Aboriginal access have not yet been completed for all regions, both the NPWS and SFNSW continue to provide access for traditional purposes. Hunting and gathering arrangements were in place for the NPWS estate in the UNE and LNE regions, as well as the issuing of section 30I permits (under the <i>Forestry Act</i>) by SFNSW for the non-commercial collection of materials on State forests. Licences/permits for hunting native animals can also be issued in accordance with other legal requirements. No progress has been made to date on the preparation of a joint NPWS and SFNSW strategy for the UNE and LNE regions.
2003 327	31 December	Sthn	5.1.1	Joint strategy on how Aboriginal communities can gain access to materials for art and craft purposes, food sources and medicine; access to firewood and opportunities for traditional use and cultural activity.	In progress Refer to milestone above.
Employment and training opportunities					
2000	1 April	UNE, LNE	5.1.2	Preparation of a joint strategy to facilitate employment and development program for Aboriginal people.	In progress No progress on the preparation of a joint strategy to facilitate employment and industry development for Aboriginal people had been made at 30 June 2003. However, employment opportunities continue to be pursued separately by both the NPWS and SFNSW. SFNSW has identified potential areas for Aboriginal people to become more involved in the timber and forestry industries, with it being recognised that some functions are specialised and require specific skills which are dependent on training. Government funding received as a result of the establishment of the NSW forest agreements has enabled an increase in the number of Aboriginal people gaining employment through SFNSW programs. SFNSW is also assisting the Australian Government in the development of a National Indigenous Forestry Strategy (announced by the Federal Minister for Fisheries, Forestry and Conservation in April 2003) with the ATSIC, key forest industry stakeholders, State governments and the Aboriginal community. The NPWS continued its Aboriginal Employment and Training Strategy which seeks to facilitate employment and development opportunities for Aboriginal people. As part of this strategy, cross-agency approaches to training are being examined. The strategy could be used as the basis of

Due date		Region	FA section*	Milestone	Progress
					future negotiations on a joint strategy.
2003	30 June	Sthn	5.1.2	Preparation of an employment and economic opportunities program with Aboriginal people.	<p>In progress</p> <p>Refer to milestone above.</p> <p>In the Southern region, Aboriginal people have been employed by SFNSW to assist the improvement of environmental conditions within flora reserves. This has involved the removal of pine wildings and rehabilitation of corroboree frog habitat. Whilst these projects were only for the short-term, participants gained experience and skills that will assist them when looking for other employment opportunities in natural resource management.</p>
Ongoing		UNE, LNE, Eden	5.1.2	NPWS to offer permanent employment opportunities for Aboriginal people in operational management as part of the funding package for the management of additions to the reserve system.	<p>Implemented</p> <p>In the Eden region, the NPWS appointed four Aboriginal staff as a result of funding provided for the management of additions to the reserve system in the region. Additional employment areas include the Discovery Ranger program, and two field officer training positions for young Aboriginal persons and one ranger training position for an Aboriginal person established by the Forest Agreement for the Eden Region. One of the trainee officers was appointed permanently during 2002/2003.</p> <p>In the UNE and LNE regions the NPWS placed an emphasis on capacity building within communities involved in co-management and to provide the skills necessary for community members to be able to be employed by the NPWS on a permanent, temporary or contractual basis. Additional employment areas include the Discovery Ranger program and the creation of a new Aboriginal identified position to develop consultation strategies for the NPWS with Aboriginal communities in its Northern Directorate, to ensure that the agency builds effective relationships with local communities and engages appropriately with those communities.</p>
2005	31 December	Sthn	5.1.4.2	Enterprise development with SFNSW has been identified as a major interest for Aboriginal communities. Some examples are provided in the forest agreement.	<p>In progress</p> <p>Some options for enterprise development have been discussed between SFNSW and Aboriginal groups. Although no commitments have yet been made by either party, a number of potential projects are being considered by Aboriginal communities in the Southern region.</p>
2005	31 December	Sthn	5.1.4.4	SFNSW should initiate the specified employment opportunities to enable active Aboriginal participation in the management of forests, subject to funding.	<p>In progress</p> <p>No external funds have been identified. However, Aboriginal representatives are engaged in the process of locating cultural heritage sites and assisting the identification of appropriate measures to protect sites. Contracts have been signed with a number of groups to assist with the investigation and management of cultural heritage. Four Aboriginal people in the Southern region have been employed in the removal of pine plantation wildlings in flora reserves.</p>
2005	31 December	Sthn	5.1.4.6	Specified employment opportunities in NPWS were identified as a major priority for Aboriginal communities in the Southern region, subject to external funding.	<p>In progress</p> <p>In the NPWS South West Slopes Region (which covers part of the Tumut sub-region of the Southern region), two field officer positions were established and have been filled. NPWS provides contract opportunities and employs Aboriginal contractors where available. Some NPWS regions, such as South West Slopes Region, are also participating in the NPWS Aboriginal Cadet Ranger program.</p>

Due date		Region	FA section*	Milestone	Progress
Aboriginal Management Committee for the Southern region					
2003	31 December	Sthn	5.1.4.1	An Aboriginal Management Committee will be established for both State forests and national parks to represent and manage Aboriginal cultural heritage on State forests and national parks respectively.	In progress The NPWS South West Slopes Region is considering options for the establishment of a regional Aboriginal management committee, based on the Aboriginal working group model used for the development of the Kosciuszko National Park Plan of Management.
2003	31 December	Sthn	5.1.4.1	Terms of Reference for the Committees will be determined and developed by the Committee members upon establishment. Terms of Reference must include specified aspects.	No reporting required The Committee had yet to be established at the end of the reporting period. Therefore, no terms of reference have been developed.
2003	31 December	Sthn	5.1.4.1	Development of a Plan of Management which will address the management principles, guidelines and objectives of the Aboriginal Management Committee.	No reporting required The committee had yet to be established at the end of the reporting period. However, the Aboriginal community has been involved in the development of the Kosciuszko National Park Plan of Management.
2005	31 December	Sthn	5.1.4.5	A provision be created for two Aboriginal representatives to sit on the South West Slopes Regional Advisory Committee.	In progress The term of the present NPWS South West Slopes and Snowy Mountains Regional Advisory committees have been extended to accommodate the Kosciuszko National Park Plan of Management process. When the next committee is appointed, expected in 2004, provisions have been made for two Aboriginal places. In the meantime, the existing committee has made provision for a second Aboriginal person to sit in on current meetings to facilitate an understanding of the committee's role.
MANAGING FOR OTHER FOREST VALUES AND USES					
Occupation permits on State forests					
1999	1 July	UE, LNE, Eden	2.3.3	Formation of Occupation Permit Taskforce. (Taskforce will also consider issues in the Eden region)	Complete A Taskforce was formed in November 2000, represented by the NPWS, SFNSW and NSW Farmers.
2000	1 July	UNE, LNE	2.3.3	Phasing out of occupation permits.	In progress This milestone is being considered
2002	31 December	Sthn	2.3.3	Consideration of the Southern region by the Occupation Permit and Permissive Occupancy Taskforce.	In progress This milestone is being considered.

Due date	Region	FA section*	Milestone	Progress
Within 18 months of gazettal of new reserves	Sthn	2.3.3	Phasing out of occupation permits in State forests which currently exist in areas identified as formal reserves and informal reserves and permissive occupancies on Crown land identified as formal reserves and informal reserves.	In progress Refer to above milestone.
Roads and trails				
2000	1 January	UNE, LNE, Eden	2.13.4 2.12.4 (E) Preparation of a MOU on joint roads and trails maintenance and access arrangements.	Complete - UNE and LNE regions A MOU on the usage of joint roads and trails and maintenance and access arrangements in the UNE and LNE regions was entered into between SFNSW and the NPWS in January 2000. Draft – Eden region A draft MOU for the Eden region was also previously developed. However, its finalisation has been deferred pending the preparation of a similar MOU for the Southern region, ensuring compatibility of the MOUs for the two regions.
2002	31 December	Sthn	2.13.4 MOU on the usage of roads and trails maintenance and access arrangements.	In progress Refer to milestone above.
Fire management				
2001	1 April	UNE, LNE, Eden	2.10 2.9 (E) Preparation of a joint agreement with District Fire Committees for the prevention, detection and suppression of bush fires.	Implemented SFNSW and the NPWS continue to be represented on the District Fire Committees, formed under <i>Rural Fires Act 1997</i> , along with DLWC and the NSW Rural Fire Service. SFNSW and the NPWS are recognised as two of four fire authorities under the <i>Rural Fires Act</i> . SFNSW and the NPWS are also members of the NSW Bush Fire Coordinating Committee. The Bush Fire Coordinating Committee is the statutory body responsible for the coordination of all state fire fighting agencies including the NSW Rural Fire Service, NSW Fire Brigades, SFNSW, the NPWS and various animal and environment agencies and land managers, and for planning in relation to bush fire prevention and coordinated fire fighting. The Committee advises the Commissioner of the NSW Rural Fire Service on bush fire prevention, mitigation and coordinated bush fire suppression. Both SFNSW and the NPWS address fire management in all aspects of its activities.
Ongoing		Sthn	2.10 Continuing participation in District Fire Management Committees for the prevention, detection and suppression of bush fires.	Implemented Refer to milestone above.
2007	30 April	Sthn	Att 6(2l) Incorporate into Regional ESFM Plans and plans of management under the <i>National Parks and Wildlife Act 1974</i> , provisions which address bush and other fires ensuring ecologically sustainable forest management of forests.	In progress Provisions are being incorporated into NPWS plans of management and SFNSW Regional ESFM Plans as they are developed. Refer also previous milestone.

Due date	Region	FA section*	Milestone	Progress
Recreation and tourism				
2001	1 April	UNE, LNE, Eden	2.13.1 2.12.1 (E) Preparation of joint regional recreation and tourism plans.	<p>In progress</p> <p>A joint recreation and tourism plan has yet to be developed by the NPWS and SFNSW for the UNE and LNE regions. The NPWS Northern Directorate has independently completed a draft Recreation Planning Framework to manage visitor impacts and experiences. At 30 June 2003, the framework was still an internal working document and involved establishing criteria for recreation use, management and development in parks. Completion of the framework has been delayed while development of a statewide NPWS sustainable visitation strategy is being considered.</p> <p>For SFNSW, there has been no progress during 2002/2003 on tourism and recreation planning in the UNE region. However, requirements for the LNE region were partially met by the release of A Recreation and Tourism Strategy for the State forests of the Central Coast and Lower Hunter. This strategy was developed by SFNSW in collaboration with the community, and consultation with the NPWS.</p> <p>A cooperative recreation and tourism plan for the Eden region, and parts of the Southern region, has been developed and is in its final draft. Development of the joint plan commenced following the signing of the Southern RFA in April 2001, having had been deferred to enable the South Coast sub-region of the Southern region to be included in the plan. The plan has been developed by a multi-agency taskforce that included the NPWS, SFNSW, Eurobodalla Tourism, Sapphire Coast Tourism, Umurra Aboriginal Cultural Heritage Tours and DLWC.</p>
2003	31 August	Sthn	2.13.1 Preparation of joint regional recreation and tourism plans.	<p>In progress</p> <p>Refer to milestone above.</p>
Carbon sequestration opportunities				
2004	1 April	UNE	2.13.2 Undertaking of a revegetation project that includes carbon sequestration opportunities.	<p>In progress</p> <p>In 2000, the Minister for the Environment and the Minister for Forestry entered into a MOU on the sharing of expertise and information to expand carbon sequestration rights and environmental markets on areas of national parks. In 2000/2001, the NPWS undertook a study to identify potential reforestation areas on NPWS-managed land in order to operationalise the MOU. The study verified, and ranked according to gross area, site productivity and conservation value, more than 44 individual parcels of cleared land (mostly ex-farmland), covering over 9 400 hectares. Further detailed analysis of three potential pilot sites has since been undertaken, including one site located in Border Ranges National Park (UNE region). At the end of 2002/2003, findings of the study were being prepared.</p> <p>Carbon sequestration opportunities continue to be pursued by SFNSW through the establishment of plantations for carbon sinks under various other partnerships. At the end of 2002/2003, 3 800 hectares of plantation had been established in the Hunter Valley for carbon credits, as part of the SFNSW and TEPCO partnership (entered into in 2000/2001). In 2003, SFNSW entered into a \$172 million carbon credit agreement with ST Microelectronics.</p>

Due date		Region	FA section*	Milestone	Progress
Plantation areas within national parks					
2001	30 June	UNE, LNE	3.3 6.16.1 Att 11	Supply from logging associated with rehabilitation of identified hardwood plantations remaining within the new reserve system and completion of harvesting of plantations in national parks.	In progress Plantation areas are located at Myall Lakes, Knappinghat, Koreelah, Mebbin and Toonumbar. An assessment of all five areas by the NPWS in 2001/2002 found that two areas would benefit from harvesting. Prior to any harvesting taking place within the areas, a Review of Environmental Factors under Part 5 of the <i>Environmental Planning and Assessment Act</i> and community consultation would be required. At 30 June 2003, no harvesting of former SFNSW hardwood plantation areas within the reserve system had been undertaken to date due to costs associated with rehabilitation and the small commercial volumes contained within the areas.
Ongoing	Within 6 months of harvest	UNE, LNE	6.16.1	Rehabilitation works on plantation areas within national parks must be completed within six months of harvest completion.	No reporting required At 30 June 2003, no harvesting operations have been undertaken due to costs associated with rehabilitation and small commercial volumes, therefore no rehabilitation works have commenced.
Ongoing		UNE, LNE	6.16.1	Works programs and rehabilitation plans to be jointly prepared and approved. Rehabilitation costs to be funded by sale royalties.	No reporting required Some of the proceeds from the harvesting of former SFNSW hardwood plantation areas situated within the reserve system are to be directed towards any necessary rehabilitation works. As no harvesting operations were undertaken during 2001/2002, no rehabilitation works were undertaken.
MANAGING TIMBER SUPPLY					
Supply arrangements					
1999	1 March	UNE, LNE	3.2	Amendment of wood supply agreement with Boral.	Complete Signed 5 March 1999 taking effect from 1 January 1999.
1999	31 December	UE, LNE, Eden	Att 8	Review legislation and policies relevant to the allocation and pricing of hardwood logs from State forest before the end of 1999.	Complete During 1999, in accordance with the schedules review of SFNSW' log pricing policy, the final phase of amendments were made to the Log Value Pricing System to update assumptions within the residual value pricing model and remove anomalies. These amendments included the removal of the remaining 10% capping of price variations in relevant pricing zones. The log value pricing system was also expanded to include the linkage of small sawlog prices to quota sawlog prices. The main objective of the final stage of the implementation of Log Value Pricing was to create a closer consistency of hardwood sawlog prices with market value. The final phase was implemented on 1 March 2000.
2000	1 April	UNE, LNE	3.2	Wood supply agreement arrangements for processing thinnings.	Complete No new markets for processing thinnings from native regrowth and hardwood plantations have emerged. Therefore, the Minister for Forests has not considered any new agreements.

Due date		Region	FA section*	Milestone	Progress
2000	1 April	Eden	3.2	Amendment of wood supply agreement with Harris Daishowa Australia.	Complete Signed 5 March 1999, amended 29 September 1999.
2000	31 December	UNE, LNE	3.2	Additional volumes supplied under a transitional "top-up" arrangement over two years to assist industry adjustments to terminate by 31 December 2000.	Complete SFNSW made arrangements for additional wood supply volumes over a two year period. 'Top-up' arrangement amount reduced by half during the year 2000 and terminated on 31 December 2000.
Ongoing		UNE, LNE, Eden, Sthn	3.4 4.3	Consultation on timber supply arrangements must occur through the development of Plans of Operation.	Implemented Consultation by SFNSW with stakeholders occurs in the development of Plans of Operations.

Resource availability and sustainable yield

Ongoing		UNE, LNE, Eden	3.5	Results of resource inventory and annual monitoring must be used to review performance in achieving the implementation of sustainable yield of timber products in State forests.	In progress Strategic inventory plot supplementation has occurred for the UNE and LNE regions. Formal inventory policy has also been implemented within SFNSW that directly links to ongoing strategic FRAMES sustainable yield monitoring. No further work has been conducted for the Eden region at this stage
Ongoing	Within next 5 years	UNE, LNE	3.5 Att 8	Refinement of resource availability by improving the inventory such as additional plot measurements (funding provided at \$500 000 pa for five years).	In progress Program being developed. Work to date includes that identification of permanent growth and extra plots to improve measurement of resource availability.
Ongoing		Eden	3.5 Att 8	Refinement of resource availability by improving the inventory such as additional plot measurements.	In progress SFNSW has implemented an inventory plot management system called REDEN, which is designed to provide strategic analysis output for the even-aged regrowth forests of the south east. Initial outputs of the system in the region will be evaluated and sensitivity analysis completed in late 2005 that will in turn form a core part of the consultation process on improvement to yield regulation in native forests managed by SFNSW. This approach is to be discussed with the EPA, PlanningNSW, the NPWS and stakeholders.
2007	30 April	Sthn	3.5 Att 6(6e)	Refinement of resource availability on native forests by additional inventory plot measurements to improve volume estimates at a regional level.	In progress SFNSW has commenced some planning for additional inventory plot measurements in the Tumut sub-region during 2002/2003. Actual establishment of plots throughout the region was delayed until completion of other FRAMES work. The establishment of inventory plots should commence in October 2005 and be completed by June 2006.

Due date		Region	FA section*	Milestone	Progress
Ongoing		Sthn	3.5	The results of resource inventory and annual monitoring of actual and predicted timber volumes must be used to review the performance in achieving the implementation of sustainable yield of timber products.	In progress Refer to milestone above.
FRAMES improvement and review					
Ongoing		UNE, LNE, Eden	3.5	Inventory system used in FRAMES must be supplemented by progressive enhancement of modifier models, such as harvesting area exclusions and FRAMES parameters such as tree protection and tree availability modifier models.	In progress Since 1999, significant effort has been expended on measuring additional inventory plots and gathering additional data to underpin net harvest area estimates. This information is currently being incorporated into the databases that underpin FRAMES and being written up in technical reports for wider distribution. SFNSW has completed an internal review of projected timber yields for the UNE and LNE regions.
2006	31 December	Sthn	3.5 Att 6(7)	Enhancement of modifier models in FRAMES including refinement of harvesting area exclusions and FRAMES parameters (such as the tree defect and tree availability modifier models), using locally specific data to replace RFA regional average modifier models.	In progress Milestone not due until 2006, but consideration is being given to this task.
2006	31 December	Sthn	Att 6(7)	Establishment of an ongoing FRAMES development program to include the listed elements.	In progress Milestone not due until 2006, but consideration is being given to this task.
Ongoing		UNE, LNE, Eden	3.5	SFNSW consultation with NPWS and PlanningNSW on the terms and conduct of the FRAMES assessment.	In progress SFNSW have undertaken an internal assessment of objectives and outcomes of the FRAMES review process and are to commence discussions with stakeholders and agencies to determine their priorities for future development of FRAMES. Information from these sources will be used to develop a FRAMES Improvement Strategy that will direct future work and be the basis for future reporting of progress.
2002	30 September	Sthn	3.5 Att 6(7)	SFNSW will consult with NPWS, EPA and DoP on the terms and conduct of the FRAMES review/development program.	In progress Refer to milestone above.
2007	1 March	UNE, LNE	3.2 3.5	Review of supply levels at year 8, after inventory is reviewed, to determine a supply level for years 9-20, with value adding criteria applied at year 5.	No reporting required Review at year 8 will be undertaken as part of FRAMES review.

Due date		Region	FA section*	Milestone	Progress
FRAMES monitoring					
2004	1 April	UNE, LNE	3.5	SFNSW, NPWS and PlanningNSW will consult on appropriate spatial scales for reporting actual yields against FRAMES estimates.	In progress Preliminary discussions were held to enable reporting actual versus predicted volumes in the 1999/2000 NSW Forest Agreements Annual Report. Further discussions between SFNSW, NPWS and PlanningNSW are to be undertaken. It is intended the former North East Wood Resources Group will be reconvened in 2005/2006 to discuss and review this and other FRAMES development issues.
Ongoing		Eden, Sthn	3.5	SFNSW, NPWS and PlanningNSW will consult on appropriate spatial scales to reporting actual yields against FRAMES estimates.	In progress Refer to milestone above.
Annually		UNE, LNE, Eden	3.5	Reporting on actual versus predicted volume at the scale determined by SFNSW, PlanningNSW and NPWS. To be included in the annual report to Parliament.	Implemented Volumes harvested by SFNSW in 2002/2003 did not exceed the allowable variation from the committed volume in any region. The actual volume of Veneer and High Quality Large sawlogs harvested from SFNSW native forest and hardwood plantations in the UNE region was 81 860m ³ . This represents 71% of the committed volume. In the LNE region, 168 764m ³ of the committed volume of Veneer and High Quality Large sawlogs were harvested from SFNSW native forest and hardwood plantations. This represents 99% of the committed volume. In the Eden region, 21 091m ³ of High Quality Large sawlogs and veneer logs were harvested from SFNSW native forests. This represents 95% of the committed volume. Quota pulp grade and chipwood timbers harvested from native forests in the Eden region was 313 870 tonnes. This represents 91% of the committed volume defined in the IFOA.
Annually		Sthn	3.5 Att 6(6d)	Information on actual yields against FRAMES estimates at the agreed scale to be provided to DoP and included in the Annual Report to the NSW Parliament (at the determined scale).	Implemented Actual volume of veneer and High Quality Large sawlogs harvested from SFNSW native forest in the Southern region was 62 329m ³ . The represents 65% of the committed volume.
Annually		UNE, LNE	3.5	Monitoring of FRAMES performance to include comparison of actual and predicted volume each 12 month period at the RFA region level. To be included in Annual Report to Parliament.	In progress In 2001/2002 SFNSW highlighted issues with 'actual versus predicted' methods which has prevented any meaningful comparison of FRAMES estimates with actual volumes. Actual harvest volumes are provided for the previous milestones.
Annually		Eden	3.5	Monitoring of FRAMES performance to include comparison of actual and predicted volume for the multi-aged forest resource each 12 month period. To be included in Annual Report to Parliament.	In progress Refer milestone above.

Due date		Region	FA section*	Milestone	Progress
Annually		Sthn	3.5 Att 6(6f)	Monitoring and review of FRAMES performance to include comparison of actual versus predicted volumes for each financial year.	In progress Refer milestone above.
Annually		UNE, LNE, Eden	3.5	Monitoring of FRAMES performance will include an assessment of the progressive 20 year supply. To be included in Annual Report to Parliament.	In progress Refer milestone above.
Annually		Sthn	3.5	Monitoring and review of FRAMES performance to include assessment of progressive 20 year supply.	In progress Refer milestone above.
2006	31 December	Sthn	Att 6(8) point 2	Commission and publish an independent review of the enhanced systems and process, models, information base, and assumptions which contribute to the FRAMES system applying to both the South Coast and Tumut subregions of the Southern region.	No reporting required Milestone not due until 2006. There has not been any progress with respect to external review of SCRA FRAMES. Enhancement activities are planned to commence in the first half of 2006.
2007	30 April and each 5 year review	Sthn	Att 6(8) point 2	Undertake a review of sustainable yield every five years using enhanced FRAMES systems and information bases. The results of this will inform the annual volume which may be harvested from the Southern region (or subregion), being mindful of achieving long-term sustainable yield and optimising sustainable use objectives consistent with this Agreement.	No reporting required Milestone not due until 2007. Over the years since the forest agreements were implemented, much effort has focused on FRAMES improvement and enhancement to sustainable yield analyses for the north coast. However a significant component of this effort has been in research, development and improvement to tools and procedures used to complete the analyses. These advancements are transferable to the Southern region will enable shorter lead times for sustainable yield reviews in that locality.
2007	30 April and each 5 year review	Sthn	Att 6(8) point 3	Undertake independent audits of sustainable yield to be completed and published in time for each subsequent five year review.	No reporting required Milestone not due until 2007.
2007	30 April	Sthn	Att 6(6c) point 2	The FRAMES models will reflect the site-specific silvicultural regimes applied in the Southern Region.	No reporting required Milestone not due until 2007. Although further work is required, preliminary analysis of this issue has indicated that it does not have a large impact for strategic reviews or estimates that come from FRAMES.
1999	30 June	UNE, LNE	6.16.2	The development of a process (prior to any purchases) of selecting land for purchase by SFNSW for timber supply must consider substantially unmet CAR conservation targets. A process for this and the key targets must be developed by SFNSW including consultation with NPWS and PlanningNSW by the 30 June 1999. This is not to hinder the overall purpose of	In progress A process for selecting land for purchase by SFNSW for timber supply had not yet been completed by SFNSW, the NPWS and PlanningNSW. The process, which is to include agreed criteria on the key substantially unmet CAR conservation targets, while not hindering the overall purpose of the Private Property Timber Supplementation program (UNE and LNE regions) had previously been discussed between the agencies. However, no further progress to finalise the process was made during the year. Until an agreed process is reached between the agencies, SFNSW is continuing to apply its approach which meets requirements of the forest agreements.

Due date		Region	FA section*	Milestone	Progress
				the Private Property Supplementation Program to supplement the SFNSW timber supply.	
2002	30 June	Sthn	3.3.3	The process (prior to purchase) of selecting land for purchase by SFNSW for timber supply must address criteria to be agreed between SFNSW and NPWS. These criteria will consider: the key substantially unmet CAR conservation targets; whether there is any need for access through reserves; issues of reserve design; and proximity to national parks/reserves.	In progress See milestone above.
Production of timber products					
Annually		UNE, LNE, Eden	3.5	Report on annual production of timber products other than the production of quota sawlogs.	Complete Reporting done on a financial year basis. Data provided in Table 2-B.
Annually		Sthn	3.5 Att 6(6d)	A report to DoP, NPWS and EPA on annual production of products other than production of quota sawlogs for each financial year.	Complete Reporting done on a financial year basis. Data provided in Table 2-C.
Timber supply arrangements and management and charcoal production					
2002	30 September	Sthn	3.3.2	SFNSW must undertake a baseline analysis of tree species mix, size, quality and quantity for each compartment within State forest (post-forest agreement) using existing data contained in harvesting records and other sources (i.e. sales data on sawlogs and higher value products). The results of this analysis must be provided to NPWS and DoP.	No reporting required Milestone no longer required.
Annually		Sthn	3.3.2	Each year SFNSW must monitor and report as part of the forest agreement annual report process, the amount of residual timber (tonnage) harvested from each compartment and amount of species, size, quality and quantity of trees harvested in each compartment from sales data on sawlogs and higher value products and compare this to the baseline data.	No reporting required Milestone no longer required.

Due date	Region	FA section*	Milestone	Progress
Annually	Sthn	3.3.2	If monitoring each year indicates a change in these parameters (i.e. amount of species, size, quality and quantity of trees harvested), SFNSW must consult DoP and NPWS to determine if remedial action is required and SFNSW must implement appropriate actions agreed between the three agencies.	No reporting required Milestone no longer required.
Annually	Sthn	3.3.2	Each year SFNSW must monitor and report, as part of the forest agreement annual reporting process, the total quantity (tonnes) of fluxwood (if this is sourced from either as part of the 200 000 tonnes of residue timber or thinnings) and the total quantity (tonnes) of thinnings.	No reporting required Milestone no longer required.

Silviculture practices

1999	1 December	UNE, LNE	2.2.4	Preparation of Eco-field Guides.	In progress Eco-field guides for the Upper North East and Lower North East regions were published in 2000. The guides were made up of two parts; Part 1 - overview of forest management in North East NSW and part 2 - diagnostic component. In accordance with EMS principles (continual improvement), SFNSW review its corporate documents and systems. Part 1 of the eco-field guides were being reviewed at 30 June 2003. Part 2 of the eco-field guides were being applied in the field and updated on an ongoing basis.
2002	31 August	Sthn	2.2.4 4.3	Prepare and publish Eco-field Guides for the Southern region.	In progress Preparation of a draft eco-field guide for the Southern region continued during the year. It is expected the guide will be complete in 2005.
2000	1 April	UNE, LNE, Eden	2.2.4 Att 6	Preparation of SFNSW Forest Practices Code: Part 5 - Wildlife Management in Native Forests.	In progress SFNSW prepared a draft Forest Practices Code in 1999/2000. The draft was applicable to all forest agreement regions. No further progress has been made to finalise the draft.
2002	30 June	Sthn	2.2.4 Att 4	SFNSW Forest Practices Code: Part 5 – Wildlife Management in Native Forests.	In progress See milestone above.
2001 Ongoing (Sthn)	1 April	UNE, LNE, Eden Sthn	2.2.8 Att 6(2c) (S)	Native forests silvicultural regimes must be implemented on State forests.	Implemented SFNSW published a Native Forest Silviculture Manual in September 2000 which documents silvicultural regimes that have traditionally been practiced on State forests with proven success, as well as silvicultural specifications and guidelines required by the IFOAs. The manual complements SFNSW' field guides and training programs, and is supported by its Forest Practices Circular 2002/02 - Implementing Silviculture in LNE and UNE. The circular provides a step-by-step instruction on application of the manual and implementation of the silviculture (including tree marking) in the field in the UNE and LNE regions. The circular and manual are being used in harvest planning and in the field.

Due date		Region	FA section*	Milestone	Progress
2001	1 April	UNE, LNE, Eden	2.2.8	Preparation of arrangements for silvicultural practices including establishment of demonstration areas (UNE, LNE regions only), audit compliance, reporting and consultation.	<p>Implemented</p> <p>At 30 June 2003 two demonstration sites had been established in the Queens Lake and Kiwarrak State forests (LNE region). Further sites are to be established in the near future.</p> <p>Demonstration areas established, or to be established, by SFNSW form part of a four-tiered approach to silviculture training for SFNSW planning and supervisory staff. Each demonstration site is selected on the basis of them being of an operational scale, contain representative forest types, forest structure, location and presence of IFOA exclusion areas.</p> <p>The auditing process for silvicultural practices applied by SFNSW has been integrated into its corporate compliance monitoring and audit process.</p>
2003	30 September	Sthn	2.2.8 Att 2(o) 4.2	Preparation of arrangements for silvicultural practices including demonstration areas (for silvicultural practices and suite of silvicultural regimes), auditing, report area harvested and silvicultural types and consult on ecosystem management.	<p>In progress</p> <p>No formal demonstration sites had been established in the Southern region at the end of the reporting period. However, informal sites have been established and field days held for all staff associated with implementing the Southern IFOA. Various combinations of low, medium and high STS operations have been discussed in the field to ensure correct interpretation. A number of thinning sites have been established as well.</p>
Ongoing		UNE, LNE, Eden	2.2.5	SFNSW to employ internal audit system to ensure consistent application of standards across Crown-timber lands.	<p>Implemented</p> <p>SFNSW has included its policy on internal auditing in the NFEMS Overview. The audit system comprises a four-tiered system of compliance monitoring to be implemented in all regions. This procedure has been updated in the SFNSW Forest Practices Circular 2003/01 - Monitoring and Measuring Compliance of Operations. Application of the audit system provides for: T1 - On-site monitoring by the Supervising Forest Officer (SFO), to ensure compliance with operational conditions; T2 - On-site checking of the T1 level by the SFO's supervisor and correct application of standards; T3 - Independent audit of the T1 and T2 levels by regional staff not directly involved in the operation, and/or independent audit by the EMS Audit team from Environmental Management Branch; T4 - Independent audit by Management Audit and Review Branch. All operations are covered by the audit procedure with risk assessments determining the focus of T1 and T2 monitoring and of the T3 and T4 audits.</p> <p>Any non-compliance requires a corrective action request to address the non-compliance and minimise any future re-occurrences. Results from T1/T2 monitoring checks are kept in SFNSW Harvest Tracking System. Results are reported to regulators and published in SFNSW annual <i>SEEing</i> report.</p>
Ongoing		Sthn	2.2.5	SFNSW to employ an internal audit system to ensure consistent application of standards and monitor compliance with IFOA.	<p>Implemented</p> <p>See milestone above.</p>
Ongoing		Sthn	2.2.5	The results of this monitoring and auditing should be reported using a mechanism determined by DoP, NPWS, SFNSW, NSW Fisheries and EPA.	<p>Implemented</p> <p>Results of monitoring and auditing of the IFOA for the Southern region is reported each year through the NSW Forest Agreement Implementation Report, commencing 2002/2003.</p>
Ongoing		UNE, LNE, Eden	2.2.3	Harvesting plans to be prepared for all logging operations and forest products conducted under a Timber Licence.	<p>Complete</p> <p>Harvesting Plans are prepared for all logging operations and forest product removal conducted under a Timber Licence. A harvesting manual detailing the requirements to ensure consistency and standards has been developed and is now being applied to all regions.</p>

Due date		Region	FA section*	Milestone	Progress
Ongoing		Sthn	2.2.3	For activities regulated under Part 4 of the <i>Forestry and National Park Estate Act</i> , harvesting plans must be prepared for all logging operations conducted under a Timber Licence.	Complete See milestone above.
Ongoing		UNE, LNE, Eden	2.2.7	Notification by SFNSW on the location and nature of forestry operations to be done at least bi-monthly to PlanningNSW, NPWS, EPA and NSW Fisheries as outlined in IFOA arrangements.	Implemented Program implemented. SFNSW is providing monthly notification of operations to regulatory agencies.
Ongoing		Sthn	2.2.6	Notification of the location and nature of forestry operations to NPWS, EPA, NSWF and DoP as outlined in IFOA arrangements.	Implemented Program implemented. SFNSW is providing monthly notification of operations to regulatory agencies.
Ongoing	No less than 2 months before commencement of forest agreement	UNE LNE Eden	2.2.7	Liaison by SFNSW with DUAP, NPWS, and EPA on proposed forestry operations and activities not originally covered by forest agreement or IFOA. SFNSW must carry out an appropriate assessment of the impacts resulting from any proposed changes and each agency must consider the environmental consequences of any proposed changes in terms of their regulatory responsibility.	No reporting required Not required during 2002/2003.
Ongoing	2 months before activities begin	Sthn	2.2.7	Liaise with DoP, NPWS and EPA on proposed forestry activities not covered by forest agreement and integrated forestry operations approval. Impacts from the proposed forestry activities must be assessed.	No reporting required Not required during 2002/2003.
2002	31 December	Sthn	Att 6(2n)	Establish a process, including public reporting, for regular audits of compliance and reviews of Codes of Practice, Eco-field Guides and Regional prescriptions.	Implemented An overview of SFNSW audit process was included in its draft NFMS Overview that was publicly exhibited in 2000 (since re-named the NFEMS). The audit process has since been put in place following the implementation of its Operational Compliance Monitoring and Audit Manual. The final audit process will be included in the EMS when complete. SFNSW conduct regular internal compliance checks to determine potential breaches of the IFOAs, under which forestry operations in SFNSW native forests must comply. Results of these internal audits are publicly reported as part of the ESFM criteria and indicator monitoring and also at a statewide level in its <i>SEEing</i> reports each year. The NPWS assess compliance with the Threatened Species Licence in accordance comprehensive guidelines and procedures that were endorsed in March 2002. The guidelines and procedures were compiled into handbook form and are used across the NPWS to ensure a consistent approach to compliance monitoring and enforcement. An active audit program of SFNSW' forestry operations in relation to the Environment Protection Licence, has been developed by the EPA, ensuring that SFNSW is taking the required measures to protect the aquatic environment through responsible planning and operations. Non-compliance with

Due date		Region	FA section*	Milestone	Progress
					<p>conditions of the Environment Protection Licence are dealt with through meetings with senior SFNSW officers, issuing feedback or warning letters, clean-up notices, penalty notices or prosecution actions as appropriate at the circumstances.</p> <p>NSW Fisheries carry out opportunistic threatened species compliance activities in relation to forestry operations where they coincide with other fishery compliance duties. NSW Fisheries investigate complaints when received.</p>
2007	30 April and each 5 year review	Sthn	Att 6(2n)	Undertaking audits of compliance at first and subsequent five-yearly reviews.	<p>No reporting required</p> <p>Not required until the first and subsequent five year reviews.</p>

IMPLEMENTATION, REVIEW AND COMMUNITY AWARENESS

STAFF TRAINING, EMPLOYMENT AND INDUSTRY INITIATIVES

Staff training

Ongoing		UNE, LNE, Eden	2.1.1 3.6 (E)	<p>SFNSW field staff and contractors must receive appropriate competency-based training.</p> <p>In Eden, establish timber industry training and accreditation program to assist workers in developing recognised competencies in soil and water, flora and fauna, indigenous and non-indigenous cultural heritage, log grading and log merchandising requirements.</p>	<p>Implemented</p> <p>Over 1 800 training and development courses were undertaken by SFNSW staff and contractors, at a cost of over \$2.6 million. Courses undertaken were primarily in occupational health and safety, first aid, recognition and protection of environmental and cultural heritage values and soil and water training as part of the Forest Harvesting Operator course for forest workers. Another 55 courses provided training to 623 staff in areas including fire fighting, accredited courses occupational health and safety and operational skills. Training programs were developed for safe driving and a fire fighter fitness program was introduced to cover 850 permanent staff.</p>
Ongoing		Sthn	2.1.1 Att 6(2k)	Field staff and contractors of SFNSW must continue to receive appropriate competency-based training including training in biodiversity management, soil and water management, log grading, silviculture, harvest planning and cultural heritage.	<p>Implemented</p> <p>See milestone above.</p>
Ongoing		UNE, LNE, Eden	2.1.2	NPWS field staff and contractors must receive appropriate competency-based training.	<p>Implemented</p> <p>NPWS is continuing staff training programs. These cover natural and cultural (including Aboriginal) heritage management and operational, technical and safety matters. Programs range from technical training related to occupational health and safety requirements to statewide capacity building initiatives targeted at particular staff classifications. All NPWS staff have also attended cultural awareness training.</p>
2005	31 December	Sthn	5.1.4.5	All NPWS staff located in the Southern Directorate be provided with adequate cultural awareness training, to improve customer relations with Aboriginal communities.	<p>Implemented</p> <p>Refer to milestone above.</p>

Due date	Region	FA section*	Milestone	Progress
Employment and industry initiatives				
Ongoing	Subject to funding	UNE, LNE, Eden Sthn	3.6 Att 10 Att 8 (S)	<p>In progress</p> <p>During 2002/2003, the NSW Government directed \$2.1 million to allow the continuation of work by the Private Forestry Unit, the purchase of private property for timber supplementation purposes, resource inventory of the north coast forests, and Aboriginal cultural heritage management. The funding provided for two positions in the Private Forestry Unit, six Aboriginal cultural heritage officers, and twelve positions for the resource inventory work. \$1.96 million was directed to land purchases for timber supplementation during 2002/2003, following the cessation of the FISAP Private Property Timber Supplementation Program in December 2002.</p> <p>Non-commercial thinning operations were undertaken by SFNSW in young regrowth stands during the year (Eden region). Labour for these operations was through the employment of displaced workers from sawmills in the region. As this program came to an end the affected employees were engaged on strategic inventory of the extensive regrowth stands. SFNSW has used this inventory data to further develop growth and yield models for the regrowth stands.</p> <p>The NSW Government has granted \$9.1 million per year for 2002/2003 and 2003/2004 for the establishment of new reserves in the Southern region. Key establishment activities have included pest species management, fire management, asset maintenance, preparation of management plans, Aboriginal heritage management and neighbour relations. Capital works outsourced by the NPWS since the Forest Agreement for the Southern Region was signed in 2002 include lookout and walking track construction, camping area development and interpretation facilities. As identified in the Forest Agreement for the Southern Region, 91 positions for conservation and Aboriginal heritage management have been funded and include four Aboriginal cultural heritage officers (of which one is a female position).</p> <p>Pest control programs have been developed and carried out by SFNSW in the Southern region, as well as an extensive non-commercial thinning program and made improvements to informal reserve areas. Up to 18 full-time positions have been created under these programs.</p>
Industry initiatives				
2004	1 April	UNE, LNE, Eden	2.9.2 2.8.2 (E)	<p>Implemented</p> <p>In the LNE region, two Timber Sale Agreements for purchase of private property timber rights have also been implemented. These Timber Sale Agreements will provide an estimated volume of 2 000m³ of High Quality Large quota sawlogs. Final FMZ classifications await on ground resolution of rainforest and of the application of the high conservation value old growth protocol, with a precautionary principle applied during planning to allow resolution of the rainforest and high conservation value old growth potential of 'grey' areas. Planning for forest operations on these properties applies IFOA conditions.</p>
Ongoing		Sthn	3.3.3	<p>In progress</p> <p>Refer to milestone above.</p>

Due date		Region	FA section*	Milestone	Progress
Ongoing	Subject to funding	UNE, LNE, Eden	3.6	Extension of FISAP to fund various initiatives in the UNE, LNE and Eden regions.	<p>In progress</p> <p>FISAP funded initiative Private Property Timber Supplementation Program, operating in the UNE and LNE regions, was established to assist SFNSW purchase timbered property as a means of providing additional resources to the native timber industry due to the reduction in resource following the establishment of the CAR reserve system. This initiative concluded in 2002/2003, resulting in the purchase of 10 properties, covering 13 357 hectares of native forest (2 637 ha in the UNE region and 10 720 ha in the LNE region), with an estimated volume of 141 439 m3 of high quality large quota sawlogs (33 675m3 in the UNE region and 107 118m3 in the LNE region) purchased.</p> <p>The Log Haulage Assistance program (UNE and LNE regions), was allocated funds of \$1 million per year over five years to assist native forest quota sawmilling companies meet additional log haulage costs incurred where they have to obtain quota sawlog supplies from outside their usual areas of supply (as a result of the establishment of the CAR reserve system). Funding for this program is scheduled to cease by December 2003. It was unlikely the full FISAP allocation would be utilised by that time. Prior to the March 2003 State election, the Premier announced the continuation of the Log Haulage Assistance program for a further two years. Details on this extension had not yet been finalised at 30 June 2003.</p> <p>For the Eden region, the Eden Recovery Mill initiative was completed in 2000/2001. While the Commercial Regrowth and Thinning program had yet to commence, being unlikely to proceed as it has effectively been superseded by funding individual harvesting operations under the Industry Development Assistance component of FISAP.</p>
2006	30 June	Sthn	3.6	FISAP applies in the Southern region and will be available to fund initiatives until 20 June 2006.	<p>In progress</p> <p>\$2.5 million of FISAP funds have been allocated to the Sawlog Productivity Program – Silvicultural Programs for the South East Region to improve sawlog productivity of south coast forests. Within the operational constraints of the Southern RFA and forest agreement and IFOA, the strategy is to select and cull merchantable trees to restore productivity to degraded timber stands capable of improved sawlog growth, to release young, potentially merchantable trees otherwise inhibited by the non-merchantable over-storey.</p>

COMMUNITY PARTICIPATION, EDUCATION AND AWARENESS

Complaint handling

2000	1 January	UNE, LNE, Eden	6.15	Devise and implement a coordinated complaint handling and response system.	<p>Implemented</p> <p>The Coordinated Complaint Handling Protocol was developed by the NPWS, NSW Fisheries, EPA and PlanningNSW. The Protocol establishes a standardised, coordinated and efficient process to respond to complaints received from the public relating to the IFOAs. The system was endorsed in October 2001 and has been operating since that time. As detailed in the Protocol, its objectives are to: 1) efficiently received an record information; 2) ensure the confidentiality of a complainant; 3) ensure that the information is forwarded to and received by the appropriate response agency/ies for action; 4) ensure that regulatory agencies are fully accountable for handling of all relevant complaints; 5) ensure that appropriate management actions are undertaken by SFNSW; 6) ensure that the complainant is informed about the progress and final outcome of the investigation.</p>
2002	30 June	Sthn	6.15	Devise and implement a coordinated complaint handling and response system for the IFOA.	<p>Implemented</p> <p>See milestone above. System also applies to the Southern region.</p>

Due date		Region	FA section*	Milestone	Progress
Ongoing	When making an amendment	Sthn	6.2	Public participation is required when making a forest agreement or when an amendment or revocation occurs.	Implemented A public submission period was made available prior to the finalisation of the Southern Region Forest Agreement. No subsequent amendments have been made to the agreement.
Community awareness and education					
Ongoing		UNE, LNE, Eden, Sthn	Att 8 Att 6(2g) (S)	Providing ongoing formal participation to raise awareness and understanding of ESFM and how it can be achieved in New South Wales forests.	Implemented Agencies continue to provide a range of education and awareness opportunities to the public to promote, generally indirectly, ESFM. NPWS programs included a) guided walks and tag-along four-wheel drive tours; b) ranger talks and on-site inspections; c) training, planning and control programs for pest species. The NPWS Discovery program also provided community education on natural and cultural heritage. Key themes addressed in 2002/2003 were threatened species and 'living with fire'. About 86 177 people participated in the program through 2 432 education walks, talks and tours conducted in 18 NPWS Regions throughout the year. Initiatives, activities and contributions made by SFNSW include local sporting rallies and events, tree planting rehabilitation, landcare activities, prizes for competitions held by schools and other organisations. Ninety community based programs were undertaken by SFNSW Regions and over 790 volunteers participated in programs at Cumberland State Forest, Sydney during the year.
Ongoing		Sthn	Att 6(2j)	Developing and implementing public education programs to deal with ecologically sustainable management issues including management requirements for conservation and codes of forest practice governing activities in both public and private forests.	Implemented Refer to milestone above.
Ongoing		UNE, LNE, Eden	Att 8	Continuing to develop the public consultation and public reporting mechanisms through the introduction of new partnerships (for example the International Model Forest Network).	In progress SFNSW is continuing to develop its stakeholder consultation and public reporting mechanisms. SFNSW has been producing voluntary public reports on environmental and social values through its <i>SEEing</i> report (formerly known as the Environment and Social Values report) for six years. <i>SEEing</i> is part of SFNSW's commitment to communicate with the community, staff and other stakeholders its performance in managing public forests for a range of values identified as being of particular importance to SFNSW and its stakeholders. The report is a companion document to SFNSW's corporate annual report prepared under the <i>Public Finance and Audit Act 1983</i> and the <i>Annual Reports (Statutory Bodies) Act 1984</i> . NPWS is involved in a number of initiatives, such as it having established itself as a leading contributor on the South East Catchment Management Board Local Management Team, a coalition of local and state government land management agencies and key community and industry groups adopting an innovative and strategic approach to private land conservation in south east New South Wales. The team is responsible for administering the \$2 million Native Vegetation Fund allocated by the NSW Government for private land conservation arising from the Eden RFA and oversees partnerships and agreements to protect and promote private land conservation, and the provision of incentives and funding to support on-ground conservation outcomes. The NPWS provides detailed vegetation mapping support and implements elements of its Conservation Partners Program as part of a range of private land conservation incentives to complement the public reserve system.

Due date	Region	FA section*	Milestone	Progress
Ongoing	UNE, LNE, Eden, Sthn	Att 8 Att 6(2i) (S)	Improving cooperation and coordination between Government agencies so as to achieve integrated management for conservation, wood production and other values in both public and private forests.	Implemented MIG and National Forest Inventory processes are key examples of improving cooperation and coordination to achieve integrated management for conservation, wood production and other values in both public and private forests. The Australian Forestry Standard was launched on 11 October 2002 after nearly two years of development within a standards drafting framework. The standard provides an example of cooperation and coordination to achieve integrated management for conservation, wood production and other values in both public and private forests, developed by Australia's Primary Industries Ministerial Council (formerly the Ministerial Council on Forestry, Fisheries and Aquaculture) in partnership with the National Association of Forest Industries, Australian Forest Growers, and Plantation Timber Association of Australia. Details in Chapter 2 – 'Cooperation between government agencies'.
Ongoing	Sthn	Att 6(2f)	Improving the coordination and effective use of resources allocated to research for ESFM in New South Wales.	Implemented Refer to milestone above.

INFORMING THE PUBLIC

Access to information

1999	As soon as possible	UNE, LNE, Eden	1.6	Granting of an IFOA on, or as soon as possible after, the making of the agreement.	Complete IFOAs for the UNE, LNE and Eden regions were signed 21 December 1999, and commenced 1 January 2000. Subsequent amendments were made to the IFOAs; Amendment 1 for the UNE, LNE and Eden regions commenced 1 December 2001 and Amendment 2 for the UNE, LNE and Eden regions commenced 3 May 2003.
2002	ASAP	Sthn	1.6.1 Att 6(1) & (2a)	Granting of an IFOA for the Southern region.	Complete An IFOA for the Southern Region was signed by the NSW Ministers for Planning, Environment, Forestry and Fisheries 3 May 2002, and commenced 13 May 2002.
1999	Within 7 days of signing	UNE, LNE, Eden	6.10	Furnishing of the Agreement (and IFOA) to the Presiding Officer of each House of Parliament and to be laid before Parliament within 15 sitting days of receipt.	Complete Furnishing of the forest agreement for the UNE, LNE and Eden regions to the Presiding Officer of each House of Parliament occurred on 9 March 1999. Furnishing of the IFOAs to the Presiding Officer of each House of Parliament occurred on 24 December 1999.
2002	Within 7 days of signing	Sthn	6.10 6.1	A copy of the forest agreement including any amendment or termination of the agreement must be furnished to the Presiding Officer, so it can be laid before that House within 15 sitting days of that House after it is received by the Presiding Officer.	Complete Furnishing of the forest agreement and IFOA for the Southern region to the Presiding Officer of each House of Parliament occurred in May 2002.

Due date		Region	FA section*	Milestone	Progress
Ongoing	When making or amending	Sthn	6.2	Public participation is required when making a forest agreement or when an amendment or revocation occurs.	Complete The draft Forest Agreement for the Southern Region was publicly exhibited between 30 April and 1 June 2001, in accordance with clause 17(1) of the <i>Forestry and National Park Estate Act</i> . Notice was provided in the Sydney Morning Herald and several regional newspapers. A total of 21 submissions were received as a result of the exhibition period. All submissions were considered prior to the finalisation of the agreement and are described in the Submissions Report: Southern Region Forest Agreement (NSW Government, 2002).
1999	1 April	UNE, LNE, Eden	6.11	Public notice in newspaper circulating throughout the State and also in a newspaper circulating the region, about the Agreement and IFOA.	Complete Forest agreements on 12, 16 and 18 March 1999 in regional newspapers (Northern Daily Leader, Newcastle Herald, Armidale Express, The Advocate, Port Macquarie News, Northern Star, Northern Rivers Echo, Bega District News, The Magnet, Queanbeyan Age, and South East Magazine) and the Sydney Morning Herald. IFOAs on 29 December 1999 and 5 January 2000 in the same regional newspapers, The Australian and the Sydney Morning Herald.
2002	Within 7 days after signing	Sthn	6.11	Public notice in a newspaper circulating throughout the State and also in a newspaper circulating in the region, about the making of the forest agreement and IFOA or amendment.	In progress Making of public notice was underway.

Access to information

1999	1 December	UNE, LNE, Eden	2.11.3 2.10.3 (E)	Determining a method to provide all research reports to the public.	Complete All CRA/RFA project reports have been placed deposited in the PlanningNSW Library. Access to these documents can be made by request at the PlanningNSW Information Centre located on Ground Floor, Henry Deane Building at 20 Lee Street Sydney. Some project reports can also be viewed through a link on the RACAC website (http://www.racac.nsw.gov.au) and the Australian Government's RFA website (http://www.rfa.gov.au).
1999	1 April	UNE, LNE, Eden	6.11	Copies of documents to be made available for public inspection at the head office and other regional offices of PlanningNSW.	Complete Forest Agreements were signed on 5 March 1999 – deposited at PlanningNSW Head Office Sydney, regional offices at Newcastle, Queanbeyan and Grafton; SFNSW regional offices at Casino, Glen Innes, Grafton, Coffs Harbour, and Eden; NPWS regional offices at Port Macquarie, Armidale, Grafton, Glen Innes, Alstonville and Merimbula. IFOAs were signed on 21 December 1999 – deposited at PlanningNSW Head Office Sydney, regional offices at Newcastle, Grafton and Queanbeyan; SFNSW regional offices at Walcha, Taree, Casino, Eden and Coffs Harbour; NPWS regional offices at Glenn Innes, Alstonville, Merimbula, Armidale and Port Macquarie.
2002	Within 7 days after signing	Sthn	6.11	Copies of documents to be made available for public inspection at the head office and other regional offices of the Department of Planning.	In progress Distribution of documents was underway. Copies available on request through PlanningNSW.

Due date		Region	FA section*	Milestone	Progress
1999	1 May	UNE, LNE, Eden	6.11	Copies of documents made available on the Internet by means of the website of the PlanningNSW.	Complete Access to the NSW forest agreements and IFOAs was made available on the RACAC website (http://www.racac.nsw.gov.au) in March 1999 and April 2000 respectively. The site also contains links to the Australian Government RFA website (http://www.rfa.gov.au) that contains project reports carried out as part of the CRA/RFAs for the UNE, LNE and Eden regions.
2002	As soon as practical after documents made public	Sthn	6.11	Copies of documents made available on the Internet by means of the website of the Department of Planning.	Complete Access to the NSW forest agreement and IFOA was made available on the RACAC website (http://www.racac.nsw.gov.au) in 2003. The site also contains links to the Australian Government RFA website (http://www.rfa.gov.au) that contains project reports carried out as part of the CRA/RFAs for the Southern region.
2002	30 June	Sthn	2.11.3	All project reports relevant to the regional forest assessment must be made public.	Complete All CRA/RFA project reports have been published, and are publicly available via the Australian Government RFA website and on request from PlanningNSW.
2002	Within 6 months of signing	Sthn	Att 6(5)	Publish all FRAMES CRA reports for Southern.	Complete All FRAMES CRA reports for the Southern region have been completed and are publicly available.

Additional reporting mechanisms

2000	1 April	UNE, LNE, Eden	4.2	Additional reporting and consultative mechanisms for NPWS (e.g. <i>State of the Parks</i> report, NPWS Advisory Council, District Advisory Committee).	Complete A key reporting initiative by the NPWS is its statewide State of the Parks. The first report, State of the Parks 2001 (NPWS, 2001c) was released in 2001 and provided an overview of the conservation values of New South Wales and their management within the parks system. The next report is due for release in early 2005. The NPWS District Advisory Committees are also continuing to provide advice to the National Parks Advisory Council and the NPWS on range of natural and cultural heritage conservation matters both on and off reserve. The committees have been active in providing the NPWS with expert advice on technical and specialist matters, feedback on the views of the community, encouragement of community support and involvement in conservation of nature and cultural heritage, suggestions on improvements in the management of NPWS national parks and other reserves, and input to plans of management. Membership of these committees includes Aboriginal communities, women, local government and farmer groups. Recent amendments to the National Parks and Wildlife Act have increased the membership of the council from 16 to 19. Recruitment is under way to fill these vacancies. The NPWS is represented on a range of international, national, state and local groups related to forests and forest management, including the Australasian Fire Authorities Council, NSW Bushfires Coordinating Committee and Greening Australia (among others). Full lists of committees and groups the NPWS is represented is provided each year in each its corporate annual report.
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Due date		Region	FA section*	Milestone	Progress
2002	31 August	Sthn	4.2	Additional reporting and consultative mechanisms for NPWS such as State of the Parts report.	Complete See milestone above.
2000	1 April	UNE< LNE, Eden	4.3	Additional reporting mechanisms for SFNSW (e.g. Plan of Operations, Regional ESFM Plans).	Complete SFNSW <i>SEEing</i> report, is published each year to evaluate the success of ESFM. The report for 2002/2003 was the sixth sustainability report issued by SFNSW, and was subject to an independent verification. Outcomes of the audit indicated that, overall, the report is a fair and accurate representation of the organisation's environmental, social and economic performance. Commendation was also given to the development of SFNSW SEEDS data management system that reduces potential for human error, and allows simple regional data entry. Other reporting mechanisms such as the Bush Telegraph also continued to be published every two months by SFNSW, as well as its Research Division's annual report prepared each financial year. SFNSW is represented on a range of international, national, state and local groups related to forests and forest management, including the Australasian Fire Authorities Council, NSW Bushfires Coordinating Committee and Greening Australia (among others). Full lists of committees and groups SFNSW is represented is provided each year in each its corporate annual report.
2002	31 August	Sthn	4.3 Att 2p Att 6(7c)	Additional reporting and consultative mechanisms for SFNSW such as Plan of Operations, NFMS and any committee established to implement forest management at the landscape level. Document basis for silvicultural practices and publish Native Forest Silvicultural Manual.	Complete Refer to milestone above.
Annually		UNE, LNE, Eden Sthn	2.2.6	SFNSW reporting at statewide level through Environmental and Social Values Report.	Complete SFNSW has published the 1999/2000 Environmental and Social Values report, 2000/2001. Replaced with <i>SEEing</i> report since 2001/2002.
2000	1 April	UNE, LNE, Eden	4.5	Additional reporting mechanisms, such as committees, by other agencies.	Complete All agencies are continuing to report annually at a corporate level through their annual reports. The EPA is continuing to release the State of the Environment report every two years.

Due date	Region	FA section*	Milestone	Progress
ESFM CRITERIA AND INDICATORS				
Monitoring				
Ongoing	UNE, LNE, Eden, Sthn	2.11.2 2.10.2 (E) Att 7 (S)	Monitoring of ESFM criteria and indicators.	<p>Implemented</p> <p>Monitoring of the ESFM criteria and indicators for the UNE, LNE and Eden regions commenced in 1999/2000, and for the Southern region in 2002/2003.</p> <p>The NPWS has established a central coordinating group to administer the implementation and monitoring of the ESFM criteria and indicators, in conjunction with its own <i>State of the Parks</i> monitoring stream. Efforts by the NPWS in the last year have concentrated on improving internal systems for managing the data in order to improve the usefulness of the data for use within the agency, and to improve efficiency by enabling data collected to meet multiple reporting needs.</p> <p>SFNSW improved its ability to monitor the ESFM criteria and indicators following the implementation of its SEEDs computer application in 2001/2002. The system allows for improved management of data, its storage, and retrieval in order to meet various data requirements; including the ESFM criteria and indicators, MIG and SFNSW <i>SEEing</i> reporting. The SEEDs application provides a set structure and definitions to standardise the provision of regional data thereby increasing its consistency and accuracy. SFNSW continued the development and establishment of its SEEDs database application (implemented in 2001/2002) enhancing linkages with other corporate systems.</p>
Reporting				
Annually	UNE, LNE, Eden Sthn	2.11.2 2.10.2 (E) Att 9	Reporting on indicators to contribute to annual report to Parliament.	<p>Complete</p> <p>Reporting of the ESFM criteria and indicators has been incorporated into the NSW agreement reporting process for the UNE, LNE and Eden regions since 1999/2000, and more recently in 2002/2003 for the Southern region. Summarised information on the results of monitoring are provided in Chapter 3 of this report each year and detailed in the supplementary report, ESFM Criteria and Indicators Monitoring Report.</p>
Trial and assessment				
2000	1 April	UNE, LNE, Eden	2.11.2 2.10.2 (E)	<p>Complete</p> <p>A draft evaluation framework was devised by PlanningNSW in 2000/2001. The draft was accepted, in principle, as a final document by agencies involved in the collection of ESFM criteria and indicators monitoring data. The framework has since been applied.</p> <p>The purpose of the framework is to collect information on the appropriateness of each indicator, such as cost-effectiveness, appropriateness of the indicators, ability to obtain data, ability to obtain data in specified format. The information obtained from the framework will be used to assist with the review of the criteria and indicators, as part of the first five year review of the forest agreements.</p> <p>An assessment of the ESFM criteria and indicators will be part of the first five year review of the forest agreements and IFOAs. The review will incorporate those for the Southern region to ensure consistency and compatibility between the forest agreement regions. However, the improvement and development of monitoring and reporting processes for the criteria and indicators by all participating agencies has been ongoing since 1999/2000.</p>

Due date		Region	FA section*	Milestone	Progress
2002	30 September	Sthn	2.11.2	Preparation of an evaluation framework for the criteria and indicators.	Complete Framework developed and also applicable to the Southern region. See milestone above.
2004	1 April	UNE, LNE, Eden	2.11.2 2.10.2 (E)	Trial and assessment of indicators to ensure they are practical, measurable, cost-effective and capable of being implemented at the regional level.	No reporting required An assessment of the ESFM criteria and indicators is to be undertaken as part of the first five year review.
2007	30 April	Sthn	2.11.2	Review of indicators.	No reporting required Milestone due 2007.
Data management					
1999	1 October	UNE, LNE, Eden	6.13	Lodgement of all archival copies of data.	Complete All archival copies of data for the UNE, LNE and Eden regions have been lodged. Archive set finalised in July 2001.
2002	30 June	Sthn	6.13	Lodgement of all archival copies of data.	Complete The archive for the Southern region had not yet been completed at 30 June 2003 due to technical difficulties.
2000	1 April	UNE, LNE, Eden	6.13	Data Management Agreement.	Complete Data management agreement finalised by State members of the CRA Data Management Group and endorsed by RACD of PlanningNSW in March 2000, applicable to the North East and Eden regions. Agreement attached to North East RFA (Attachment 13), Eden RFA (Attachment 13).
2002	30 June	Sthn	6.13 Att 6(2h)	Preparation of Data Management Agreement.	Complete Refer also milestone above. Data management agreement attached to Southern RFA (Attachment 12).
Ongoing		UNE, LNE, Eden, Sthn	Att 8 Att 6(2h)	Developing and implementing an information system to facilitate the sharing of data for the use by all agencies, including local government, involved in the management of forested land.	Implemented In March 2001 the NSW Government launched the CANRI website (http://www.canri.nsw.gov.au). The site was developed to improve the integration and coordination of data between government and increase public awareness of natural resource management. The site aims to adopt a cooperative approach to integrate existing data and information systems and provide the community with access to a range of natural resource information. Of use to community groups, industry groups, landholders, government agencies and students, it provides easy access to maps and other natural resource information. It also allows stakeholders to contribute information to the site and as a source for data sharing (NSW Government, 2003). The CANRI framework provides a central access point to various natural resources data, such as vegetation mapping and data, soil profile information and water quality, storage and river flow.

Due date	Region	FA section*	Milestone	Progress
				<p>Further developments are underway to allow access to information on minerals and aquatic and terrestrial wildlife. For example, in 2002 the development of a biodiversity information system (BioNet) commenced that aims to allow users to search for records of specific species, or for all species across a specific area of the State.</p> <p>Information on the CANRI program, projects and activities and new internet products can be found in the monthly newsletter CANRI News (http://www.canri.nsw.gov.au/newsletter/index.html).</p>
Research				
1999	1 December	UNE, LNE < Eden	2.11.3 2.10.3 (E)	<p>Research projects that are in areas formerly on State forests and are now in national parks and nature reserves, SFNSW to provide NPWS with details of affected studies, location of sites and access requirements.</p> <p>Complete</p> <p>During the CRA/RFAs, areas of State forests were transferred to NPWS tenure, resulting in some SFNSW research projects being located in the NPWS estate. In accordance with requirements of the NSW forest agreements, details of all research projects in former State forests in the UNE, LNE and Eden regions have been identified and details (including location and access requirements) of these studies were provided to the NPWS in 2000/2001. The NPWS is providing access to these sites where required. Sites identified in the north east regions included the former Lorne Flora Reserve (now national park) and Yabba State forest (now Toonumbar National Park), and Coolangubra State forest (now part of the South East Forest National Park) in the Eden region.</p>
2002	30 June	Sthn	2.11.3	<p>Continuing projects in former State forest areas to be documented and details provided to NPWS on affected studies, location of sites and access requirements.</p> <p>Complete</p> <p>Details of research projects located on the NPWS estate (previously State forest) in the Southern region have also been identified by SFNSW. Only one research project area, situated in the Murrumbidgee National Park was identified that required continued access by SFNSW. Details of the location of the area where field plots are located have been provided by SFNSW to the NPWS and periodic access is being permitted by the NPWS.</p>
2000	1 January	UNE, LNE, Eden	2.11.3 2.10.3 (E)	<p>Preparation of strategy to outline all monitoring and research to be undertaken.</p> <p>In progress</p> <p>The Forest Research and Liaison Committee was formed (October 2000) to assist in the development of a joint research and monitoring strategy. At the end of the reporting period a joint strategy had yet to be completed. However, agencies continued agency-based strategies to address both monitoring and research.</p> <p>An agency-wide Corporate Research Framework has been developed by the NPWS, whilst its Northern Directorate (which incorporates all of UNE region and the majority of LNE region) developed a research plan during 2002/2003. The research plan details all current research projects and provides a structure and process to facilitate the coordination of future research efforts. The project will have wide involvement of Northern Directorate staff. A Biodiversity Research Strategy is also being developed under the NSW Biodiversity Strategy (NPWS, 1999a). An interagency working group will progress this task.</p> <p>SFNSW publicly exhibited a draft monitoring and reporting strategy with the Regional ESFM Plans in 2000. The strategy is being finalised as part of the Regional ESFM Plans (scheduled for completion in 2005). SFNSW also prepare an annual strategic plan for its research division.</p>
2003	30 June	Sthn	2.11.3 Att 7	<p>A strategy for important research and monitoring (including ESFM indicators) must be prepared jointly by SFNSW and NPWS.</p> <p>In progress</p> <p>Refer to milestone above.</p>

Due date		Region	FA section*	Milestone	Progress
Ongoing		Sthn	Att 6(2f)	Improving the coordination and effective use of resources allocated to research for ESFM in New South Wales.	In progress Refer to milestone above.
2004	1 March	UNE, LNE, Eden	2.11.3 2.10.3 (E)	Preparation of a compendium of forest research.	Draft The development of a compendium of forest research was initiated by the Research Liaison Committee in late 2000 (represented by the NPWS, PlanningNSW and SFNSW) through each participating agency on the committee identifying current research and priorities for future research. This information has assisted the development of a draft compendium by PlanningNSW, which sought further contributions (including published research) by a range of other land management agencies, research organisations and universities. At the end of 2002/2003, this work was continuing with further review of the draft compendium required prior to seeking approval from participating agencies. The focus being to review to draft document to determine it adequately covers the Southern region, as well as the UNE, LNE and Eden regions.
2007	30 April	Sthn	2.11.3	A compendium of New South Wales forest research must be prepared.	Draft Refer to milestone above.
Ongoing		Eden	3.1	An operational research trial within the Eden region is proposed to be conducted by SFNSW and EPA associated with selective harvesting from some filter strips.	In progress A new proposal was developed by SFNSW and submitted to the EPA in November 2001. The EPA reviewed the proposal and provided a number of technical comments to SFNSW in February 2002. Since then, significant progress has been made during meetings between SFNSW and the EPA to discuss an appropriate research design. The two agencies have agreed, in principle, on certain technical aspects of the design. Further discussions will finalise the research trial, including site selection and field implementation. At the end of 2002/2003, no further progress on the buffer-on-buffer trials in the Eden region had been made. During negotiations between SFNSW and the EPA on buffer on buffer conditions in the Southern region, the EPA was reluctant to amend the Eden Environmental Protection Licence conditions. In the interim the Eden sawmill is being supplied with 1 000m ³ of High Quality logs per year from the South Coast sub-region of the Southern region.
2010	31 December	Sthn	Att 6(6a)	Continue to develop a suite of computational tools to help manage NSW forests at operational scales for a range of values including wood yield, growth stage, water quality and quantity, natural and cultural heritage and wildlife habitat.	No reporting required Milestone is not due until December 2010. However, a significant development in Southern region is the replacement of SPECTRUM with WOODSTOCK as the scheduler in FRAMES. Developments undertaken in the architecture of FRAMES on the north coast is expected to flow through to the Southern region in due course.
2010	31 December	Sthn	Att 6 (6b)	Develop by the end of 2010, a model to predict recruitment and maintenance of habitat trees over time.	No reporting required Milestone not due until December 2010. However, a thinning field trial in even aged spotted gum (<i>Eucalyptus maculata</i>) forest is being established in Currumbene State Forest in the Southern region.

Due date		Region	FA section*	Milestone	Progress
2007	30 April	Sthn	Att 6 (6c)	Determine, based on review, field based sampling and principles of sustainability to determine the range of silvicultural regimes and prescriptions that can be appropriately applied to each strata of forest type.	In progress A thinning field trial in even aged spotted gum forest is being established in Currumbene State Forest in the Southern region. SFNSW has issued Forest Practices Circulars outlining guidelines.
REPORTING AND REVIEW					
Reporting on the forest agreements					
Annually		UNE, LNE, Eden	6.9	Preparation of an annual report on the forest agreement, which will include a discussion on the achievement of milestones for ESFM and compliance with any IFOA.	Complete 2002/2003 is the fourth year progress reports have been prepared for the NSW forest agreements and IFOAs for the UNE, LNE and Eden region. Progress reporting is provided for each financial year on; the achievement of milestones in the forest agreements, a summary of monitoring data collected for the ESFM criteria and indicators and compliance with the IFOAs.
Annually		Sthn	6.9	The Minister administering the <i>Environmental Planning and Assessment Act 1979</i> must prepare an annual report on this agreement which will include ESFM and compliance with any IFOA for the region.	Complete This is the first annual report, covering implementation of the forest agreements for the Southern region. This report covers progress of the agreement since implementation on 3 May 2002 to 30 June 2003. Future progress reporting will continue on a financial year basis. Progress reporting is provided on; the achievement of milestones in the forest agreement, a summary of monitoring data collected for the ESFM criteria and indicators and compliance with the IFOA.
Annually	As soon as practical after it is prepared	UNE, LNE, Eden, Sthn	6.9	Each annual report on the agreements is to be tabled in each House of Parliament by the Minister for Urban Affairs and Planning as soon as practical after its is prepared.	Complete The 1999/2000 Forest Agreement Annual Report - UNE, LNE and Eden regions was tabled in Parliament in February 2002. The 2000/2001 Forest Agreement Annual Report - UNE, LNE and Eden regions has been submitted for tabling (date of tabling to be advised). The Forest Agreement Implementation Report 2001/2002 - UNE, LNE and Eden regions has been submitted for tabling (date of tabling to be advised). The Forest Agreement Implementation Report 2002/2003 - UNE, LNE, Eden and Southern regions submitted for tabling (date of tabling to be advised).
Review					
Ongoing	Every 5 year review	UNE, LNE, Eden	6.8	Ministers to review the performance of the forest agreements and IFOAs including their effectiveness and efficiency in meeting Government goals and policies.	No reporting required Part of first five year review.

Due date		Region	FA section*	Milestone	Progress
2007	30 April 2007 and every 5 years	Sthn	6.8	Every five years after the agreement is signed, a review of the performance of the agreement must be undertaken by the Ministers to assess the effectiveness and efficiency of the agreement (and approval) in meeting the Government goals and policies.	No reporting required Part of first five year review.
Ongoing	Every 5 year review	UNE, LNE, Eden	6.8	Parties to ensure the public are given an opportunity to participate in the review (public notification and inspection).	No reporting required Part of first five year review.
2005	31 December and every 5 years	Sthn	6.8	The public is to be given an opportunity to participate in the review of the agreement.	No reporting required Part of first five year review.
Ongoing	12 months after each 5 year review	UNE, LNE, Eden	6.8	Report on the outcome of the Ministers' performance review to be tabled in each House of Parliament twelve months after the review.	No reporting required Not required until 12 months after the completion of the review.
2007	31 July and every 5 years	Sthn	6.8	A report on the outcome of each review must be tabled in each House of Parliament within 12 months after the end of the relevant reporting period.	No reporting required Not required until 12 months after the completion of the review.

* (E) – Reference in Eden Region Forest Agreement

(S) – Reference in Southern Region Forest Agreement