

NSW Forest Agreements & Integrated Forestry Operations Approvals

Forestry & National Park Estate Act 1998

Upper North East
Lower North East
&
Eden Regions

Minister administering the
Environmental Planning & Assessment Act 1979



ANNUAL REPORT

March 1999
to
June 2000

The Hon. Dr Meredith Burgmann MLC
President of the Legislative Council
Parliament House
Macquarie Street
Sydney NSW 2000

The Hon. John Murray MP
Speaker of the Legislative Assembly
Parliament House
Macquarie Street
Sydney NSW 2000

Dear Dr Burgmann and Mr Murray

As required by section 21 (1) and (2) of the *Forestry and National Park Estate Act 1998*, I have pleasure in presenting to Parliament this document as the inaugural annual report on the NSW forest agreements, signed in March 1999, for the Upper North East, Lower North East and Eden regions. The annual report discusses ecologically sustainable forest management in the regions.

This report provides details on:

- the achievement of milestones in the Upper North East Region, Lower North East Region and Eden Region forest agreements from 5 March 1999 to 30 June 2000;
- the monitoring of criteria and indicators by State Forests of NSW (for the period from 1 July 1999 to 30 June 2000) and the NSW National Parks and Wildlife Service (for the period 1 January 1999 to 31 December 1999); and
- compliance with the Integrated Forestry Operations Approvals from 1 January 2000 to 30 June 2000.

I consider this report demonstrates that this Government is making strong progress toward the achievement of ecologically sustainable forest management of our forests.

Yours sincerely

The Hon. Dr Andrew Refshauge MP
Deputy Premier
Minister for Urban Affairs and Planning
Minister for Housing
Minister for Aboriginal Affairs

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EXECUTIVE SUMMARY

Background

NSW forest agreements and integrated forestry operations approvals (IFOAs) provide for the sustainable management of public forests in NSW. These agreements and approvals aim to provide a balance between timber production and management of the forests for conservation, both natural and cultural.

In March 1999, the NSW Government made forest agreements for the Upper North East (UNE), Lower North East (LNE) and Eden regions, which were followed by the signing of an IFOA for each region in December 1999. The forest agreement for the Southern Region is currently being finalised.

The forest agreements are in place for a period of 20 years. Under the *Forestry and National Park Estate Act 1998*, reporting is required annually to monitor ecologically sustainable forest management (ESFM) and compliance with the IFOAs.

Reporting

This inaugural annual report for 1999/2000 considers the implementation of forest agreements over the first 15 months, and the first six months of the IFOAs (this reporting period has been modified so that all agreements and approvals can be reported on a financial year basis as of 2000/2001). For all agencies involved in implementing the forest agreements and IFOAs, 1999/2000 has been a learning period. Data presented in this first report will be built upon over the next few years. Each year it will be possible to see more clearly how the agreements are achieving the goal of ESFM.

The National Parks and Wildlife Service (NPWS), State Forests of NSW (SFNSW), the Environment Protection Authority (EPA), NSW Fisheries and the Department of Urban Affairs and Planning (DUAP) are the principal agencies involved in the implementation of the forest agreements and compliance with the IFOAs. In order to implement the forest agreement and IFOA requirements effectively, each agency is represented on two working groups. These groups meet regularly to discuss progress on forest agreement tasks (including criteria and indicators) and IFOA compliance issues. These meetings enable the informed and coordinated participation of the agencies in the implementation of the agreements and approvals.

The principal aim of the forest agreements is to achieve ESFM. This is facilitated by two means: firstly, the completion of various tasks, or milestones, and secondly, the monitoring of a set of criteria and indicators. All milestones and criteria and indicators are listed in the attachments to each forest agreement.

Forest Agreement Milestones

Milestones are procedures, documents or tasks that are to be completed over the life of the agreements. These tasks include such activities as development of introduced predator control plans, harvest monitoring, and the undertaking of public consultative processes to address various issues relating to forests.

Over the inaugural reporting period, a total of 159 individual milestones, across the three regions, were:

- due to be completed by 30 June 2000; or
- required on an annual basis.

Of the 159 milestones across the three regions, a total of 99 (62%) were completed or are in a draft stage and of those remaining, most are being progressed.

Notable achievements include:

- the provision by SFNSW of monthly reports on harvesting operations to DUAP, NPWS, NSW Fisheries, EPA and various non-government organisations;
- the release by NPWS of the NSW Biodiversity Strategy in March 1999;
- provision of funds by the NSW Government to employ additional Aboriginal people in forest management. NPWS and SFNSW each employed two additional Cultural Heritage Officers in the North East regions and four traineeships have been appointed by SFNSW;
- the allocation by the NSW Government of \$2 million to fund a range of initiatives for the voluntary conservation of priority ecosystems on private land as identified in the Eden Region Forest Agreement;
- the commencement by SFNSW of environmental training and accreditation programs for staff to promote best practice in forest management operations; and
- with the assistance of the Forestry Industry Structural Adjustment Program (FISAP) the establishment of the Eden Recovery Mill by Blue Ridge Hardwoods Pty Ltd in the Eden Region, creating 44 new jobs. The mill will be fully operational by late 2000.



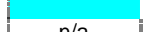

Monitoring ecologically sustainable forest management







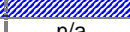
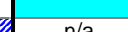
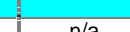




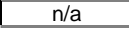
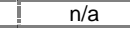




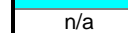
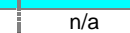














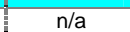
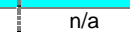














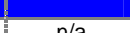

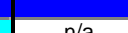


















Monitoring a set of criteria and indicators applicable to each region is required as a means of measuring progress towards the achievement of ESFM. These sets of indicators were developed as part of the Comprehensive Regional Assessment (CRA) process, derived from the internationally recognised Montreal Implementation Group set of sub-indicators.

Agencies began monitoring the criteria and indicators during this reporting period. Table 1 illustrates the level of data delivered by NPWS and SFNSW on each indicator for each region. Reporting on criteria and indicators is breaking new ground in Australia, with NSW at the forefront in the implementation of this form of forest sustainability monitoring. The criteria and indicators require the monitoring of various forest values, including biodiversity, productive capacity, forest ecosystem health, soil and water, social and economic values (employment, tourism), global geochemical cycles, and legal/institutional frameworks.

As this is the first year data have been collected on the forest agreement indicators, it is still too early to assess how effectively the indicators are 'working'. Contributing agencies are continually developing and refining interagency data collection techniques on each indicator. Some of these improvements in data collection will be in place by the next reporting period.

TABLE 1: DATA/INFORMATION PROVIDED BY AGENCIES ON ESFM CRITERIA AND INDICATORS – 1999/2000

	Some data/information provided
	Minor discussion provided, no specific data/information
	No data/information provided
	Not applicable to region

INDICATOR		NPWS			SFNSW		
		UNE Region	LNE Region	Eden Region	UNE Region	LNE Region	Eden Region
CRITERION 1 – BIODIVERSITY							
Area by forest type & tenure	1.1.a						
Forest ecosystem growth stage	1.1 & 1.1.b						
Fragmentation or connectivity of forest types	1.1.e			n/a			n/a
Forest connectivity in relation to threatened species habitat	1.2	n/a	n/a		n/a	n/a	
List of forest dwelling species/Representative species by extent and abundance	1.2.a & 1.3.b						
Status of forest dwelling species/Status of endangered populations & ecosystems	1.2.b & 1.2.1.b						
Management measures to maintain species extent	1.3	n/a	n/a		n/a	n/a	
CRITERION 2 – PRODUCTIVE CAPACITY							
Forest land available for timber production	2.1.a	<i>Criterion not required to be reported on by NPWS</i>					
Total growing stock of merchantable and non-merchantable native forest tree species	2.1.b						
Annual removal of timber & non-timber products compared to sustainable volume by tenure	2.1.b				n/a	n/a	
Annual removal of wood products compared to sustainable volume	2.1.d						
Annual removal of timber products and non-timber products by volume	2.1.d						
Area and percentage of plantations effectively established	2.1.f						
Area and percent of harvested native forest effectively regenerated	2.1.g						
Standing volume of log stocks by species group available for timber production	2.3						
CRITERION 3 – FOREST HEALTH AND VITALITY							
List of negative biological factors affecting forest health/area and percent of forest affected	2.1 & 3.1.a						
Impact of fire on forests	3.2						
CRITERION 4 – SOIL AND WATER							
Area and percentage of forest covered by Comprehensive Road Management plans	4.1.a			n/a			n/a
Ecologically sustainable road and crossing indices	4.1	n/a	n/a		n/a	n/a	
Area and percentage of forest assessed for soil erosion hazard	4.1.a						
CRITERION 5 – GLOBAL CARBON CYCLES							
Total forest ecosystem biomass and carbon pool	5.1.a						
Contribution of forest products to global carbon budget	5.1.c						
CRITERION 6 – SOCIO-ECONOMIC							
Average volume and royalty value of logs harvested per annum by species and grade	6.1	n/a	n/a	<i>Not required</i>	n/a	n/a	
Number of visits per annum/Availability and usage of recreation/tourism facilities	6.2.c & 6.3						
Direct and indirect employment in the forest sector/Employment numbers by type	6.5.a & 6.4						
Gross income index related to forests	6.5	n/a	n/a		n/a	n/a	
Change in condition and number of recorded places of cultural significance	6.4.c & 6.6						
CRITERION 7 – LEGAL, INSTITUTIONAL AND ECONOMIC FRAMEWORK							
Legal framework supporting conservation and sustainable forest management	7.1						
Institutional framework supporting conservation and sustainable forest management	7.2						
Capacity to measure and monitor changes in conservation and forest management	7.4						
Research and development	7.5						

Compliance with Integrated Forestry Operations Approvals

Annual reporting on the implementation of the IFOAs for each region is also required. These approvals provide the operational framework for forestry operations on State forests and other Crown-timber land. Various terms and conditions are set out by the IFOAs, under which forestry operations must be carried out, including harvesting, road maintenance, fire control, and the management of cultural heritage values.

Over the first six months of the IFOAs, SFNSW has successfully implemented the approvals. The EPA has issued two fines against SFNSW and one prosecution by NPWS is currently before the Courts.

In addition, SFNSW is carrying out its own compliance checks. During 1999/2000, SFNSW completed 429 compliance check sheets for the UNE Region, 945 were conducted for the LNE Region and 436 for the Eden Region. For each compliance check, about 60 IFOA conditions were assessed (i.e. approximately 108 000 checks of conditions) covering soil erosion and water quality, flora and fauna, fish habitat and passage and other issues such as safety. A total of 1 291 non-compliance incidents were recorded by SFNSW across the UNE, LNE and Eden regions. Of these, 371 were recorded in the UNE Region, 441 in the LNE Region and 479 in the Eden Region.

Conclusion

Given the short length of time the forest agreements have been operational, the achievements to date have been positive. All agencies are contributing to the requirements defined in the agreements and approvals, and are continuing to assist in further developing and refining reporting processes.

1. INTRODUCTION

In March 1999 the NSW Government made forest agreements for the Upper North East (UNE), Lower North East (LNE) and Eden regions under Part 3 of the *Forestry and National Park Estate Act 1998*. Forest agreements set out the principles and strategic framework for the cooperative management of public forests.

Section 21 (1) of the *Forestry and National Park Estate Act 1998* requires that “the Minister administering the *Environmental Planning and Assessment Act 1979*, prepare an annual report on each forest agreement, including with respect to:

- ecologically sustainable forest management (ESFM) in the region;
- compliance with the integrated forestry operations approval (IFOA) for the region.”

This is the first annual report on ESFM and IFOAs, and is an essential tool for stakeholders and the broader community in monitoring the conservation and management of public forests in the UNE, LNE and Eden regions.

Forest agreements and IFOAs can be viewed on the Resource and Conservation Assessment Council (RACAC) web site (www.racac.nsw.gov.au). They are also available in the Department of Urban Affairs and Planning (DUAP) library or can be purchased at the Information Centre of DUAP (located on the Ground Floor, corner of Phillip and Bent Streets, Sydney, telephone – 02-9391 2222). This report does not repeat any of the detail contained in the forest agreements or IFOAs.

Reporting on ESFM: forest agreement milestones and ESFM monitoring

Part 3 of the *Forestry and National Park Estate Act 1998* provides for the making of forest agreements. The forest agreements for the UNE, LNE and Eden regions were made in March 1999 by the Ministers for Urban Affairs and Planning, Environment, Forestry and Fisheries. The forest agreements for UNE, LNE and Eden regions deal with forest management and conservation on public land (but also have relevance for private forests). They establish a cooperative framework at a strategic level for the management of forested areas on State forests and the national park estate.

Section 16 of the of the *Forestry and National Park Estate Act 1998* outlines the contents of a forest agreement, including:

- description of the region of the State to which it applies;
- list of documents containing information about the relevant regional forest assessment;
- provisions that promote ecologically sustainable forest management;
- provisions with respect to sustainable timber supply from forestry operations covered by the agreement;
- provisions with respect to community consultation on forestry operations and other matters covered by the agreement;

-
-
- provisions with respect to arrangements made or to be made relating to native title rights and interests or Aboriginal land claims;
 - other provisions considered appropriate; and
 - reference to any IFOA that has been or will be granted.

The provisions in the forest agreements describe various tasks for which target dates are set (“milestones”). These milestones cover issues such as ESFM, timber supply arrangements, community consultation, Aboriginal interests and administrative arrangements.

Forest Agreement Milestones

This report addresses the requirement to report on ESFM by reviewing the progress in achieving milestones specified in each forest agreement. Attachment 12 of the forest agreements for the UNE, LNE and Eden regions lists various milestones described in the forest agreement, which are to be completed by a particular agency/agencies by certain dates. For example, one milestone requires State Forests of NSW (SFNSW) to prepare Regional ESFM Plans by April 2000. Another, to be undertaken jointly by the National Parks and Wildlife Service (NPWS) and SFNSW, is the preparation of arrangements for the prevention, detection and suppression of bush fires by April 2001. This report enables the community to see how milestones have been met, progress that has been made and additional work which is still required. Details on the progress towards individual milestones are contained in Chapter 2 and Appendix A.

Reporting on the progress of achieving forest agreement milestones in this report covers the period from 5 March 1999 to 30 June 2000. The discussion is structured by grouping each milestone into those due: between 5 March 1999 to 31 December 1999; 1 January 2000 to 30 June 2000; annually; to be carried out on an continuing basis; and those ‘future’ milestones which are due for completion after 30 June 2000. Within each of these categories, Chapter 2 lists the milestones chronologically by the section of the forest agreement in which it is located. In Appendix A, milestones are listed by the due date.

Monitoring ecologically sustainable forest management

One major milestone discussed in the forest agreements is the evaluation of forest conservation and management by monitoring a range of criteria and indicators for ESFM. The criteria and indicators in each region are outlined in Section 2.11.2 and Attachment 9 of the forest agreements for the UNE, LNE and Eden regions. Details on how these indicators were developed and additional information (such as the linkage to *Regional Level Criteria and Indicators of Sustainable Forest Management in Australia*, Commonwealth of Australia 1998) can be found in the documents entitled *Criteria, Indicators, Targets and Monitoring Processes of Ecologically Sustainable Forest Management for the Upper North East and Lower North East Regional Forest Agreements (RFA) Regions* (ESFM Group, July 1999) and *Criteria and Indicators in the Eden RFA Region* (ESFM Group, April 1998a).

Achievement of ESFM through monitoring of indicators is reported annually in this report. More detailed information is contained in the *Annual Report on the Monitoring of Criteria and Indicators for Ecologically Sustainable Forest Management: Upper North East, Lower North East and Eden Regions, 1999/2000* (DUAP, currently in preparation).

Reporting on compliance with IFOAs

Part 4 of the *Forestry and National Park Estate Act 1998* provides for the granting of IFOAs. These approvals set an operational framework for SFNSW to carry out forestry operations on State forests and other Crown-timber land. IFOAs for the UNE, LNE and Eden regions were made on 29 December 1999. An IFOA can only be granted for the whole or any part of the area covered by a forest agreement. Each of the three IFOAs discussed in this report cover the whole forest agreement region.

The IFOAs have been granted jointly by the Ministers administering the *Environmental Planning and Assessment Act 1979*, the *Forestry Act 1916*, the *National Parks and Wildlife Act 1974* (NPW Act), the *Protection of the Environment Administration Act 1991*, and the *Fisheries Management Act 1994*.

An IFOA is to:

- describe the forestry operations covered by the approval, including a description of the area of the State to which it applies;
- set out conditions subject to which forestry operations covered by the approval are to be carried out (described in this report as non-licence terms);
- contain the terms of the following licences:
 - a licence under the *Protection of the Environment Operations Act 1997* (PEO Act);
 - a licence under the *Threatened Species Conservation Act 1995* (TSC Act);
 - a licence under Part 7A of the *Fisheries Management Act 1994*.

Compliance with the IFOAs falls into two categories:

- meeting the terms of licences granted under the PEO Act; the TSC Act; and the *Fisheries Management Act 1994*. Agencies responsible for the administration of these acts will report to the DUAP on SFNSW's compliance with these licences;
- complying with the conditions subject to which forestry operations covered by the approval are to be carried out (non-licence terms), including:
 - fulfilling specified tasks, for example the completion of various management plans;
 - the meeting of certain specific conditions, for example the exclusion of logging from high conservation old growth forest and rainforest areas.

Chapter 4 of this report demonstrates the extent to which SFNSW has complied with the terms and conditions of the approval, by detailing compliance with licences by the relevant agencies. Compliance with non-licence terms is also discussed. As the IFOA for the UNE, LNE and Eden regions commenced operation on 1 January 2000, this first annual report covers only the first six months of operation of the approvals. Discussion of compliance is therefore limited in this report. It is anticipated that subsequent reports will be more detailed and comprehensive with respect to these issues.

Private land

Private forest owners are encouraged to undertake management operations in a manner consistent with ESFM principles. Conservation values occur on private land and, although private land was not assessed for inclusion in the comprehensive, adequate and representative (CAR) reserve system, it is important for conservation and protection of biodiversity. Milestones that relate to private land encourage *voluntary* protection of important ecosystems.

Reporting period

This annual report provides information on each forest agreement as required by section 21(1) of the *Forestry and National Park Estate Act 1998*. To align all future annual reports on forest agreements to the financial year, the inaugural reporting period on milestones has been extended to cover the period March 1999 to 30 June 2000.

Monitoring of criteria and indicators by SFNSW occurs on a financial year basis (1 July 1999 to 30 June 2000), while monitoring by NPWS of criteria and indicators covers the period from 1 January 1999 to 31 December 1999. Reporting on criteria and indicators in future annual reports will cover the period 1 July to 30 June each year. Information from SFNSW, EPA, NPWS and NSW Fisheries on IFOA compliance covers the period 1 January 2000 – 30 June 2000. Subsequent reports will be on a financial year basis.

Report structure

This is the first time data and information have been collected on the milestones in the forest agreements, including criteria and indicators and compliance with IFOAs. It is expected that the format and content of future reports will evolve and change, with liaison between contributing agencies continuing in order to develop a systematic process to collect and report on further data and relevant information.

The structure of this report is as follows:

- Chapter 2 addresses the progress on achieving milestones as defined in each of the three forest agreements. Appendix A provides additional details on the status of all milestones;
- Chapter 3 addresses the monitoring of ESFM criteria and indicators applicable to each forest agreement region;
- Chapter 4 reports on compliance with each IFOA; and
- Chapter 5 provides detail on significant achievements for this reporting period.

2. FOREST AGREEMENT MILESTONES

2.1 Introduction

There are 134 milestones identified in the UNE Region forest agreement, 133 milestones identified in the LNE Region Forest Agreement and 112 milestones identified in the Eden Region Forest Agreement. During the March 1999 – 30 June 2000 reporting period 57 UNE Region milestones were due for completion on or before the 30 June 2000, or as an annual requirement. Of these, 25 were completed, and two were deferred. In the LNE Region, 25 (44%) of the 57 milestones due to be completed by 30 June or as an annual requirement were achieved and two were deferred. In the Eden Region, 16 of the 45 milestones due for completion by the 30 June 2000, or as an annual requirement were achieved and two were deferred.

Table 2 summarises the achievement and progress of milestones in the forest agreements for the UNE, LNE and Eden regions. The following defines terms used to describe the progress or status of milestones in Table 2:

- *Complete*: indicates a milestone, which requires the production of a document or plans (i.e. the milestone has an end product) that has been completed;
- *Implemented*: indicates a milestone which requires a process or system to be put in place which has been implemented;
- *Draft*: indicates either a product or process has been developed to draft stage but not yet finalised;
- *In progress*: indicates a product or process still being developed/addressed;
- *Deferred*: indicates the completion of a milestone which has been postponed; and
- *No reporting required*: indicates milestones which are to be completed as part of the five-year or subsequent reviews, or required as needed.

The following discussion does not include all milestones, however, details on all milestones are provided in Appendix A.

TABLE 2: STATUS OF ALL FOREST AGREEMENT MILESTONES AS AT 30 JUNE 2000

REPORTING REQUIRED	STATUS	REGION		
		UNE	LNE	EDEN
TO BE COMPLETED BETWEEN MARCH 1999 AND 31 DECEMBER 1999	Complete/implemented	50%	50%	50%
	Draft	4%	4%	9%
	In progress	38%	38%	32%
	Deferred	8%	8%	9%
	Reporting not required	-	-	-
	TOTAL	100%	100%	100%
TO BE COMPLETED BETWEEN 1 JANUARY 2000 AND 30 JUNE 2000	Complete/implemented	24%	24%	15%
	Draft	38%	38%	54%
	In progress	38%	38%	31%
	Deferred	-	-	-
	Reporting not required	-	-	-
	TOTAL	100%	100%	100%
ANNUAL REQUIREMENT	Complete/implemented	70%	70%	70%
	Draft	10%	10%	10%
	In progress	20%	20%	20%
	Deferred	-	-	-
	Reporting not required	-	-	-
	TOTAL	100%	100%	100%
ONGOING	Complete/implemented	18%	18%	22%
	Draft	-	-	-
	In progress	59%	59%	61%
	Deferred	-	-	-
	Reporting not required	23%	23%	17%
	TOTAL	100%	100%	100%
TO BE COMPLETED AFTER 1 JULY 2000	Complete/implemented	11%	11%	14%
	Draft	21%	22%	29%
	In progress	57%	56%	38%
	Deferred	-	-	5%
	Reporting not required	11%	11%	14%
	TOTAL	100%	100%	100%

2.2 Forest Agreement Milestones to be completed between March 1999 and 31 December 1999

The following discussion outlines the progress of 16 of the 26 UNE Region and LNE Region milestones, and 12 of the 22 Eden Region milestones due to be completed between March 1999 and 31 December 1999.

In the UNE Region, 13 milestones were achieved, one is in draft form, ten are in progress, and two were deferred. In the LNE Region, 13 milestones were achieved, one is in draft form, ten are in progress and two were deferred. In the Eden Region, 11 milestones were achieved, two are in draft form, ten are in progress and two were deferred.

UNE, LNE, Eden Forest Agreement: Section 2.2.2; Att 5 – SFNSW Forest Management Zones

SFNSW publicly released *Managing Our Forests Sustainably: Forest Management Zoning in NSW State Forests* in March 2000. Regional ESFM Plans (draft to be exhibited in September 2000) will also include maps showing Forest Management Zones (FMZ) for each region. These maps define those areas of State forests to be managed for conservation purposes and those to be managed for timber production.

UNE, LNE Forest Agreement: Section 2.2.4 – Field Guides

The *Overview of Forest Management in North East NSW* which forms Part 1 of the Eco-field guide is still being prepared. Part 2 (the diagnostic component) of the field guide has been prepared and will be exhibited with the draft Regional ESFM Plans in September 2000.

UNE, LNE, Eden Forest Agreement: Section 2.3.1 – Special Management Zones

Proposed ‘special management zones’ (pursuant to the amended *Forestry Act 1916*) within State forests are to go on public display with the draft Regional ESFM Plans in September 2000. Public comments will be considered and it is anticipated that these informal reserves will be finalised by 31 December 2001.

UNE, LNE Forest Agreement: Section 2.3.3 – Formation of an Occupation Permit Taskforce

A taskforce is to be formed in November 2000 with representatives of NPWS, NSW Farmers Association and SFNSW. The taskforce will consider the impact of excluding grazing from FMZ 1 and FMZ 2. It is proposed this issue be resolved in order to allow finalisation of the management arrangements in FMZ 1 and FMZ 2 by December 2001.

UNE, LNE, Eden Forest Agreement: Section 2.3.3 – Management of Crown Reserves

Preparation of a Memorandum of Understanding between the Director-General of NPWS and Director-General, Department of Mineral Resources (DMR) regarding the management of Crown Reserves will be finalised in early 2001, following which a management committee will be formed.

UNE, LNE, Eden Forest Agreement: Section 2.4.1 – NSW Biodiversity Strategy

The NSW Biodiversity Strategy was released in March 1999.

UNE, LNE Forest Agreement: Section 2.4.3 – Hastings River Mouse Habitat Model

Refinement of microhabitat models for the Hastings River Mouse was completed prior to the signing of the IFOA for the UNE and LNE regions. Further refinement is occurring. A research and review program has been completed and the results are currently being analysed.

UNE, LNE Forest Agreement: Section 2.8 – SFNSW Cultural Heritage Management Guidelines

Eden Forest Agreement: Section 2.7 – SFNSW Cultural Heritage Management Guidelines

Cultural heritage management guidelines for SFNSW have been completed for Eden, UNE and LNE regions and attached to the relevant IFOAs.

UNE, LNE Forest Agreement: Section 2.8 – NPWS Cultural Heritage Management Guidelines

Eden Forest Agreement Section 2.7 – NPWS Cultural Heritage Management Guidelines

NPWS is reviewing their statewide cultural heritage guidelines to ensure consistency with principles contained in the Comprehensive Regional Assessment (CRA) project reports titled *Protective Mechanisms for Cultural Heritage – Generic Version* and

Protective Mechanisms for Cultural Heritage – Lower North East Region (Cultural Heritage Working Group, 2000 a and b).

Eden Forest Agreement: Section 2.8.1 – Regional Native Vegetation Committee

The forest agreements required the formation of a committee to promote the protection of important ecosystems on private land for all three regions. This committee has been formed and is known as the Regional Vegetation Committee. The first meeting is scheduled to take place on the 4 October 2000. The Committee includes representatives of DUAP, NPWS, SFNSW and the Department of Land and Water Conservation (DLWC). The meeting will discuss the existing processes implemented by agencies to promote conservation on private land of rare ecosystems and ecosystems currently not represented in the public reserve system.

In the Eden Region, the NSW Government has allocated \$2 million dollars to fund a range of initiatives for the voluntary conservation on private land of priority ecosystems identified in the Eden Region Forest Agreement and listed under the *Threatened Species Conservation Act 1995*. These funds are being managed by DLWC, NPWS and the South East Catchment Management Committee (made up of Government and non-government members).

UNE, LNE Forest Agreement: Section 2.11.3 – Research projects located on former SFNSW land

Eden Forest Agreement: Section 2.10.3 – Research projects located on former SFNSW land

SFNSW will provide details on the research that is being undertaken on land transferred to NPWS from SFNSW (such as details on the nature of the research, location of sites and access requirements). These details will be provided to the Forest Research Liaison Committee that was formed during this reporting period, with its first meeting scheduled for 6 November 2000.

UNE, LNE, Forest Agreement: Section 2.11.3 – Regional forest assessment project reports

Eden Forest Agreement: Section 2.10.3 – Regional forest assessment project reports

All available documents listed in Attachment 1 of each forest agreement are available for viewing by the public at the DUAP Library located on Level 15, GMT 1 Farrer Place Sydney. Project reports completed as part of the regional forest assessment are also available through Commonwealth's Regional Forest Agreement (RFA) web site (www.rfa.gov.au).

UNE, LNE Forest Agreement: Section 3.2 – Wood Supply Agreement

The wood supply agreement between NSW and Boral was signed on 5 March 1999, taking effect from 1 January 1999.

UNE, LNE, Eden Forest Agreement: Section 6.10 and 6.11 – Tabling and public notification

On 9 March 1999 the forest agreements for the UNE, LNE and Eden regions were tabled in Parliament. Public notice of the agreements for the three regions was given in the *Sydney Morning Herald* and various regional newspapers on 12, 15, 16 and 18 March 1999.

The IFOAs for the three regions were tabled in Parliament on 24 December 1999 and public notification occurred in *Sydney Morning Herald*, *The Australian* and various regional newspapers on 29 December 1999 and 5 January 2000.

All forest agreements and IFOAs were made available for public viewing at DUAP Head Office Information Centre in Sydney, and various regional offices of DUAP, NPWS and SFNSW. The forest agreements and IFOAs are also available in the DUAP library and on the RACAC web site (www.racac.nsw.gov.au).

UNE, LNE Forest Agreement: Section 6.16.2 – Areas for further consideration

The NPWS, DMR and SFNSW have completed their review of ‘areas for further consideration for reservation’. They have identified the areas that are available for timber production and those areas that may be included in the formal reserve system subject to resolving minerals and Crown reserve issues.

UNE, LNE, Eden Forest Agreement: Section 6.16.2 – SFNSW Purchase of Lands for Timber Supply

Discussions are underway between SFNSW and NPWS on the development of a process for considering unmet CAR conservation targets and facilitating timber supply when SFNSW purchases land to supplement timber supply.

UNE, LNE Forest Agreement: 6.16.3 – 1080 Baiting

Eden Forest Agreement Section 6.16.2 – 1080 Baiting

Where SFNSW has given approval, the control of wild dogs using 1080 baiting proceeded on land transferred to the NPWS estate during 1999.

2.3 Forest Agreement Milestones to be completed between 1 January 2000 and 30 June 2000

The following discussion outlines the progress of 16 of the 21 UNE Region and LNE Region milestones, and 11 of the 13 Eden Region milestones due to be completed between 1 January and 30 June 2000.

In the UNE Region, five milestones were achieved, eight are draft, and eight are in progress. In the LNE Region, five milestones were achieved, eight are draft, seven are in progress and one has been deferred. In the Eden Region, two milestones were achieved, six are draft, and four are in progress.

UNE, LNE, Eden Forest Agreement: Section 2.2.1 – SFNSW Regional ESFM Plans

The draft Regional ESFM Plans have been prepared for all regions and will be placed on public display by SFNSW in September 2000.

The draft Regional ESFM Plans will include:

- a timetable for the preparation of working plans for flora reserves is contained in Table 2 ‘Flora Reserve Protection Plan Targets’.
- a strategy for the management of informal reserves and areas managed by prescription within State forests; and
- a policy on Aboriginal input into forest management.

The draft plans will be finalised by 31 December 2001 after consideration of public input and discussions with regulatory agencies.

UNE, LNE Forest Agreement: Section 2.5 – Wilderness Assessment

Public exhibition of the wilderness assessment report for the UNE and LNE regions by NPWS is due July 2001. NPWS is currently finalising the assessment of outstanding wilderness nominations.

UNE, LNE Forest Agreement: Section 2.8 – SFNSW Policy on Cultural Heritage

Eden Forest Agreement: Section 2.7 – SFNSW Policy on Cultural Heritage

SFNSW’s Indigenous and Non-Indigenous Cultural Heritage Policy will be incorporated into the draft Regional ESFM Plans to be exhibited in September 2000.

UNE, LNE Forest Agreement: Section 2.9.1 – Identification of forest ecosystems on Private Land

The forest agreements for the UNE and LNE regions required the identification of forest ecosystems on private land, which are of conservation priority for inclusion into the CAR reserve system. A list of these forest ecosystems is contained in Tables 1 and 2 in Attachment 2 of the North East RFA (Commonwealth Government and Government of NSW, March 2000). Additional work on the identification of ecosystems is occurring in the UNE Region by the revision of Comprehensive Regional Assessment Aerial Photographic Interpretation (CRAFTI) to be completed by August 2001. On completion of the additional work in the UNE Region, similar work will be undertaken in the LNE Region. (Further discussion on the revision of CRAFTI is contained in section 3.2.2)

UNE, LNE Forest Agreement: Section 2.9.1 – Regional Native Vegetation Committee

The forest agreements required the formation of a committee to promote conservation on private land of rare ecosystems and ecosystems currently not represented in the public reserve system in the UNE and LNE regions. This committee has been formed and is known as the Regional Vegetation Committee. Further detail on the Committee is contained in the discussion on the Eden Region Forest Agreement milestone 2.8.1, contained in section 2.2 of this report.

UNE, LNE Forest Agreement: Section 2.11.2 – Evaluation of Criteria & Indicators

Eden Forest Agreement: Section 2.10.2 – Evaluation of Criteria & Indicators

A draft evaluation framework has been prepared to enable a review of the effectiveness of the criteria and indicators. Further development of the evaluation framework is required, including input from all agencies involved in the collection and reporting of criteria and indicators. Once finalised, the evaluation framework will be used to review indicators at the time of the first five-year review.

UNE, LNE Forest Agreement: Section 2.11.3 – Research Strategy

Eden Forest Agreement: Section 2.10.3 – Research Strategy

A joint research and monitoring strategy is to be completed as part of the work of the Research Liaison Committee, with its first meeting scheduled for 6 November 2000.

SFNSW is to exhibit a draft monitoring and reporting strategy with the draft Regional ESFM Plans in September 2000. After consideration of public input the strategy will be finalised as part of the Regional ESFM Plans in 31 December 2001.

A biodiversity research strategy is being developed by NPWS under the State Biodiversity Strategy. An inter-agency working group has been established to progress this task.

UNE, LNE Forest Agreement: Section 2.13.4 – Joint access to roads and trails

Eden Forest Agreement: Section 2.12.4 – Joint access to roads and trails

SFNSW and NPWS signed a Memorandum of Understanding on maintenance and access arrangements for joint roads and trails for the UNE and LNE regions in January 2000. Implementation guidelines are currently being finalised and field-tested. A similar Memorandum of Understanding is being prepared for the Eden Region.

UNE, LNE Forest Agreement: Section 3.2 – Markets for processing thinnings

No new markets for processing thinnings from native regrowth forest and hardwood plantations have arisen over the 1999/2000 period. Therefore, the Minister for Forestry has not considered entering into any further wood supply agreements for processing thinning from native regrowth forests and hardwood plantations operations within the UNE and LNE regions.

Eden Forest Agreement: Section 3.2 – Wood Supply Agreement

The wood supply agreement between NSW and Harris Daishowa Australia was signed on 5 March 1999, and amended on 29 September 1999.

UNE, LNE, Eden Forest Agreement: Section 4.2 – NPWS additional reporting mechanisms

Additional reporting and consultative mechanisms for NPWS include the release of a State of the Parks Report and a review of the role and composition of the National Parks and Wildlife Advisory Council and Regional Advisory Committees. The release of the State of Parks Report has been delayed until August 2001. As part of its role of providing advice to the Minister for the Environment, the National Parks and Wildlife Advisory Council considered a range of off-reserve conservation matters in 1999/2000.

A review of the role of NPWS's District Advisory Committees was undertaken during 1999/2000, and 21 new Regional Advisory Committees were formed across the State. Representation on these committees encompasses Aboriginal communities, women, local government and farmers. These committees provide advice to the National Parks and Wildlife Advisory Council, the Director-General of NPWS or the appropriate manager on measures to improve the care, control and management of those public lands for which they are appointed. The role of the committees has also been broadened to provide advice to the NPWS on nature and cultural heritage conservation matters off-reserve.

UNE, LNE, Eden Forest Agreement: Section 5.1.1 – Aboriginal access

Aboriginal access to forested areas within the Eden, LNE and UNE regions for traditional uses is being facilitated. A joint draft strategy for the Eden Region has been prepared by NPWS and SFNSW and is in the process of being finalised. A similar approach is being considered for the UNE and LNE regions. The agencies will consult with the Aboriginal community prior to finalisation of the draft strategies.

SFNSW made arrangements for the issuing of section 30I permits under the *Forestry Act* 1916, for non-commercial collection of material and permits for the hunting of native animals to Aboriginal communities to enable traditional cultural activities to be undertaken. SFNSW's management arrangement within FMZ 2 and FMZ 3 identifies specific use arrangements for Aboriginal communities.

UNE, LNE Forest Agreement: Section 5.1.2 – Aboriginal employment & development

SFNSW are implementing an Aboriginal employment program. Two additional Aboriginal Cultural Heritage Officers and four trainees have been appointed at SFNSW. Further recruitment will be continuing as needed. This is in addition to other Aboriginal officers appointed in other areas of SFNSW activities.

NPWS has appointed two permanent Cultural Heritage Officers located in Coffs Harbour and Port Stephens. During 1999/2000 a further 13 Aboriginal staff were employed by NPWS on tasks associated with the forest agreements for the UNE and LNE regions. In addition, there were 12 Aboriginal staff employed on other NPWS activities. In the UNE and LNE regions persons who identify themselves as Aboriginal comprised 6.8% of the NPWS workforce at 30 June 2000.

UNE, LNE, Eden Forest Agreement: Section 5.1.3 – Aboriginal community & stakeholder participation

Strategies to ensure Aboriginal communities and stakeholders play an active role in the management of forested areas are being developed, for example:

- SFNSW has incorporated a strategy for Aboriginal Community and Stakeholder participation into their draft Regional ESFM Plans that are to be exhibited in September 2000. This strategy is to be presented to key Aboriginal stakeholders such as the NSW Aboriginal Land Council, and discussed with Local Aboriginal Land Councils and other Aboriginal groups. Consultation with local communities will occur as part of developing Regional ESFM Plans.
- In the Eden Region, a draft Memorandum of Understanding between the Eden Local Aboriginal Land Councils and SFNSW has been drafted. This details arrangements for Aboriginal involvement in forest management, protection of cultural heritage and access to resources on State forests.
- NPWS has completed a draft strategy to increase Aboriginal community involvement in forest management in the Eden Region. The strategy will be completed following consultation with the Aboriginal community.
- NPWS and DLWC have jointly provided \$100 000 for two Aboriginal positions to undertake an assessment of cultural heritage values in catchments of the northern rivers region. This work will assist the vegetation management committees within the northern rivers region to develop regional vegetation management plans.
- To date no progress has been made on the preparation of a strategy to increase Aboriginal participation in forest management undertaken by NPWS in the UNE and LNE regions. However, NPWS is undertaking various initiatives such as cultural heritage assessment and pursuing joint Aboriginal management arrangements in Warrell Creek, Arakwal, Stockton Bight, and.

UNE, LNE, Eden Forest Agreement: Section 6.13 – Data Management Agreement

A Data Management Agreement between State agencies was finalised in March 2000 by State members of the CRA Data Management Group. The Data Agreement specifies access, ownership, custodianship, updating and archiving arrangements for the data compiled for the CRAs.

UNE, LNE Eden Forest Agreement: Section 6.15 – Coordinated complaint handling system

Inter-agency consultation is occurring on the preparation of a coordinated complaint handling and response system, which outlines the procedures for dealing with complaints from the public. The coordinated complaint handling and response system is due for completion in the first half of 2001. SFNSW is developing a circular, which outlines its own complaint handling system consistent with the inter-agency approach.

2.4 Annual Forest Agreement Milestones

The following discussion outlines the progress of four of the 10 milestones in the forest agreements for the UNE, LNE and Eden regions, which are required to be completed annually. For each region, seven of the ten milestones were achieved, one is draft and two are in progress.

UNE, LNE, Eden Forest Agreement: Section 2.2.6 – Regional ESFM Plan Reporting

Each year SFNSW will prepare a report that considers progress on the achievement of targets set out in the Regional ESFM Plans. It is anticipated the first Annual ESFM Report will be finalised by 31 December 2001. SFNSW are continuing the publication of their annual *Environmental and Social Values Report*.

UNE, LNE Forest Agreement: Section 2.11.2; Att 9 – Criteria & Indicator Reporting**Eden Forest Agreement: Section 2.10.2; Att 9 – Criteria & Indicator Reporting**

Reporting on the monitoring of criteria and indicators is part of an ongoing annual process to assist in assessing the achievement of ESFM. Summarised information on the monitoring of criteria and indicators is presented in Chapter 3 of this report. Further details are provided in the *Annual Report on the Monitoring of Criteria and Indicators for Ecologically Sustainable Forest Management: Upper North East, Lower North East and Eden Regions, 1999/2000* (DUAP, currently in preparation). The aim is to improve the collection of data and information and reporting on the monitoring of criteria and indicators each year. Inter-agency liaison on data monitoring, collection and reporting is continuing.

UNE, LNE, Eden Forest Agreement: Section 3.5 – Sawlog Volumes and FRAMES

SFNSW has completed the annual requirement to compare actual harvesting volumes against predicted volumes determined by Forest Resource and Management Evaluation System (FRAMES). Within the allowable volumes under the IFOA, the High Quality Large sawlog production has exceeded FRAMES estimates in the UNE and LNE regions for this period by 9-19%, and 16% in the Eden Region.

The monitoring of timber volumes and FRAMES estimates is critical for the management of State forests. SFNSW is progressing an improvement strategy for FRAMES. Consultation will occur with other agencies on this improvement strategy and a final plan detailing how the improvement of FRAMES will be conducted is being developed by SFNSW. One specific area of the improvement strategy is the establishment of additional inventory plots to improve the FRAMES model at the sub-regional level. By July 2000 approximately 2 070 additional inventory plots will have been established in the UNE and LNE regions to supplement the 3 000 existing FRAMES inventory plots.

UNE, LNE, Eden Forest Agreement: Section 3.5 – Production of forest products (non-sawlog)

SFNSW provided details on the annual production of products other than sawlogs for the period 1 July 1999 to 30 June 2000. The most significant non-wood forest products in each region are contained in Table 3.

TABLE 3: FOREST PRODUCTS PRODUCTION IN STATE FORESTS SFNSW - 1999/2000

FOREST PRODUCT	REGION		
	UNE	LNE	EDEN
Grazing activities	257 705 ha	90 082 ha	7 151 ha
Leaf and oil production	6 050 kg		
Nursery seedlings	250 000 seedlings		
Miscellaneous native plant pieces	4 554 pieces	144 652 pieces	
Apiculture	1 083 sites		
Gravel/sand/rock extraction		20 225 tonnes	21 000 tonnes
Firewood		4 579 tonnes	691 tonnes

Source: SFNSW (2000 unpublished)

2.5 Ongoing Forest Agreement Milestones

The following discussion outlines the progress of various milestones that are part of ongoing processes.

UNE, LNE, Eden Forest Agreement: Section 2.1.1 – SFNSW Staff Training

SFNSW has completed their training manual and competency based training for all field staff and contractors is underway (refer to Chapter 5).

UNE, LNE, Eden Forest Agreement: Section 2.2.3 – Harvesting Plans

SFNSW prepares harvesting plans for all logging operations and forest product removal conducted under a timber licence. A Harvesting Planning Manual has been developed to ensure all regulatory requirements are met at the plan preparation stage and to provide consistency between regions.

UNE, LNE, Eden Forest Agreement: Section 2.2.5 - Auditing

SFNSW has included its policy on internal auditing in its Native Forest Management System (NFMS) Overview (to be publicly exhibited in September 2000). The Environmental Management and Forest Practices Directorate within SFNSW is coordinating the audit system. The audit system will comprise a four-tier system of compliance monitoring to be implemented by all regions.

UNE, LNE, Eden Forest Agreement: Section 2.2.7 – Notification of forest operations

SFNSW is providing monthly notification to DUAP, NPWS, EPA, NSW Fisheries and various non-government organisations on the location and dates of the commencement and completion of forest operations.

UNE, LNE Forest Agreement: Section 2.11 – Pest & weed management

Eden Forest Agreement: Section 2.12 – Pest & weed management

Within the UNE and LNE regions, cooperative programs between SFNSW and NPWS and relevant landholders are progressively being incorporated into existing pest and weed strategies.

In the Eden Region, NPWS, SFNSW and the Rural Lands Protection Board are working to coordinate pest and weed management programs across the region. This will ensure a consistent approach and assist in effective and efficient control of pest and weed species.

SFNSW has also included a Feral and Introduced Predators Control Plan and Noxious Weed Management Plan in their draft Regional ESFM Plans to be exhibited in September 2000.

UNE, LNE, Eden Forest Agreement: Section 3.5; Att 8 – Refinement of resource availability

SFNSW is reviewing various aspects of the FRAMES estimation of timber supply in the Eden, LNE and UNE regions. This includes collection of additional timber inventory plot and tree data, improved growth and yield scheduling models and other model refinements. SFNSW will consult with DUAP and NPWS about the review of the FRAMES estimates.

UNE, LNE, Eden Forest Agreement: Section 3.6 – Forest Industry Structural Adjustment Program

The Forest Industry Structural Adjustment Program (FISAP) has allocated funds for two initiatives in the Eden Region and a further two in the North East (comprising of the UNE and LNE regions).

In the Eden Region, the Eden Recovery Mill has been established, while the Commercial Regrowth Thinning program has yet to commence. Blue Ridge Hardwoods Pty Ltd has established the Eden Recovery Mill with FISAP assistance, creating 44 new jobs. The mill is to be fully operational by late 2000.

In the North East (UNE and LNE regions), the Private Property Timber Supplementation program and Log Haulage Assistance initiatives have begun, with assistance from FISAP.

Under the Private Property Timber Supplementation program, \$7.5 million of FISAP funds were allocated to assist SFNSW purchase timbered property as a means of providing additional resource to the native timber industry (received as a result of the reduction in resource following the establishment of the CAR reserve system in the UNE and LNE regions).

Under the Log Haulage Assistance program, \$1 million per year over five years was allocated from FISAP funds 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.

UNE, LNE, Eden Forest Agreement: Section 5.1.1 – Aboriginal joint venture & co-management

The SFNSW Cultural Heritage Working Group within the Environmental Management and Forest Practices Directorate is considering joint venture and co-management arrangements in State forests within the UNE and LNE regions. A project is being developed with Aboriginal communities at McPherson State Forest in the Hunter region, drawing on cultural resources within the Warren Warren Aboriginal Area. Other projects with Aboriginal communities are under consideration in the Purfleet-Taree area. Liaison between SFNSW and Aboriginal communities is continuing throughout the UNE and LNE regions.

UNE, LNE Forest Agreement: Section 5.1.1 – National Parks & Wildlife Act 1974 Schedule 14

NPWS is currently developing guidelines for the assessment of all parks to determine their inclusion in Schedule 14 of the NPW Act. Schedule 14 lists lands of cultural significance to Aboriginal people which may be considered by Parliament for transfer of ownership to appropriate Aboriginal people and lease back to NPWS for management purposes.

UNE, LNE Forest Agreement: Section 6.16.2 – NPWS voluntary acquisition of leases

Land acquisition for addition to the NPWS estate within the UNE and LNE regions is continuing subject to available funding.

2.6 Forest Agreement Milestones to be completed after 1 July 2000

The following discussion provides an indication of the progress towards important milestones that have a completion date after 1 July 2000, and that are not annual or ongoing.

UNE, LNE, Eden Forest Agreement: Section 2.1.1; Att 3 & 4 – SFNSW EMS

The draft SFNSW Native Forest Management System (NFMS) Overview is to be placed on public display in September 2000. It is a major part of the SFNSW Environmental Management System (EMS). When implemented, the EMS system will assist in the continual improvement of environmental management in native forests, through comprehensive planning, assessment, implementation, monitoring, auditing and reporting. Following public consultation the EMS is expected to be finalised by 31 December 2001.

UNE, LNE, Eden Forest Agreement: Section 2.1.2; Att 3 – NPWS EMS

NPWS has begun implementing its action plan for the establishment of its EMS, due to be completed by 1 April 2004. A position has been established in NPWS to progress development of the EMS.

UNE, LNE, Eden Forest Agreement: Section 2.2.8 – Silvicultural Practices

Silvicultural demonstration areas have been established within State forests in the UNE and LNE regions. These areas will be used in the training of forestry operators. Two areas are being developed at Wauchope and Taree. Training has commenced for SFNSW staff and contractors and will continue throughout 2001 and into the future. An audit process is currently in development and will be implemented by December 2001.

UNE, LNE, Eden Forest Agreement: Section 2.3.3 – Phasing out of Occupation Permits

The majority of occupation permits will be phased out of FMZ 1 and FMZ 2 following consideration by the Occupation Permit Taskforce.

UNE, LNE, Eden Forest Agreement: Section 2.4.2 – SFNSW Plans of Management

Strategic plans for grazing management and feral and introduced predator control have been drafted by SFNSW and will be placed on display with the draft Regional ESFM Plans in September 2000.

UNE, LNE Forest Agreement: Section 2.7 – World Heritage Areas

Eden Forest Agreement: Section 2.6 – World Heritage Areas

Possible lands for classification as Central Eastern Rainforest Reserves, Australia (CERRA) World Heritage Areas were presented to the CERRA Coordinating Committee in May 2000. Areas to be included have not yet been finalised. Detailed briefings to all relevant Ministers and a revised strategic overview (to allow for public consultation) are currently being prepared.

UNE, LNE Forest Agreement: Section 2.8 – Indigenous cultural heritage management processes

Eden Forest Agreement: Section 2.7 – Indigenous cultural heritage management processes

NPWS is conducting an ongoing review of their Aboriginal cultural heritage management standards and guidelines. Consultation with Aboriginal people on the development of a new Aboriginal sites register has been completed, with further consultation to occur following the completion of the draft model in mid 2001.

UNE, LNE Forest Agreement: Section 2.13.1 – Tourism & recreation management

Eden Forest Agreement: Section 2.12.1 – Tourism & recreation management

Progress on the development of joint tourism and recreation plans for all regions has been delayed. Further inter-agency liaison is required to progress the development of the plan for the UNE and LNE regions. Development of the plan for the Eden Region has been deferred pending finalisation of the Commonwealth/NSW Southern Region RFA, as the plan area will include some areas of the Southern Region. However, SFNSW have incorporated tourism and recreation management plans for their lands into the draft Regional ESFM Plans. Additionally, NPWS is continuing to work with SFNSW on the plan for UNE and LNE regions.

UNE, LNE Forest Agreement: Section 3.3; 6.16.1; Att 11 – Hardwood plantations on NPWS land

NPWS has carried out site assessments of hardwood plantation areas on land transferred to the national park estate from SFNSW (identified in Attachment 11 of the forest agreements for the UNE and LNE regions). SFNSW has considered the viability of harvesting these plantations. Negotiations between the agencies are continuing on areas suitable for harvesting. A rehabilitation plan has been completed for one area and a plan for another area is being developed.

UNE, LNE Forest Agreement: Section 3.2 – Transitional wood supply arrangements

SFNSW has made arrangements for the additional supply of wood volumes over a two year period, as of 1 January 1999 to assist in industry adjustments with the implementation of the forest agreements in the UNE and LNE regions. This “top up” amount was reduced by half in 2000, and will be terminated on the 31 December 2000.

UNE, LNE, Eden Forest Agreement: Section 6.13 – Data archiving

The lodgement of all archival copies of data has been completed for the Eden Region, while lodgement of data for the UNE and LNE regions was 95% complete.

3. MONITORING ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT

3.1 Introduction

ESFM is defined as the management of forests so that 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 (ESFM Group 1999b). The following five principles were defined by the ESFM Group (1999b):

- maintain or increase the full suite of forest values for present and future generations across the NSW native forest estate;
- ensure public participation, access to information, accountability and transparency in the delivery of ESFM;
- ensure legislation, policies, institutional frameworks, codes, standards and practices related to forest management require and provide incentives for ESFM of the native forest estate;
- apply precautionary principles for prevention of environmental degradation; and
- apply best available knowledge and adaptive management processes.

A set of criteria, indicators and targets required to monitor the achievement of ESFM are outlined in Section 2.11.2 and Attachment 9 of each of the three forest agreements. The criteria and indicators are based on the Montreal Implementation Group set of regional level criteria and indicators of ESFM (Commonwealth of Australia 1998). There are seven criteria for each region, beneath which are a set of specific indicators. For the UNE and LNE regions there are 23 indicators each, and 31 indicators for the Eden Region. Details on these indicators are set out in the documents (available in the DUAP Library, Sydney) entitled *Criteria, Indicators, Targets and Monitoring Processes of Ecologically Sustainable Forest Management for the Upper North East and Lower North East RFA Regions* (ESFM Group, July 1999a), and *Criteria and Indicators in the Eden RFA Region* (ESFM Group, April 1998a). An assessment of the Eden Region (ESFM Group 1998b) using the indicators was undertaken in 1998. The data collected in this assessment are used in this report.

Reporting on these criteria and indicators provides information on the achievement of ESFM. As information and data collection improves over time, so will the monitoring of ESFM.

This chapter is a summary of the information or data that have been collected on the indicators for the UNE, LNE and Eden regions. Further details are contained in the report entitled *Annual Report on the Monitoring of Criteria and Indicators for Ecologically Sustainable Forest Management – Upper North East, Lower North East and Eden Regions, 1999/2000* (DUAP, currently in preparation).

3.2 Criterion 1 – Biodiversity

“Biodiversity is the variety of different life forms – the different plants, animals and micro-organisms, the genes they contain, and the ecosystems they form” (NPWS, 1999).

Overall the criterion aims to increase the extent of all forest types over the estimated pre-1750 levels, and to ensure a functional level of connectivity is maintained between forested areas. Old-growth forest, particularly rare or endangered, are priority areas and the aim is to increase their extent. The criterion also aims to increase the diversity of forest species, identifying those whose status is threatened and the formulation of protective measures to maintain or enhance species abundance.

3.2.1 INDICATOR 1.1.a Extent of area by forest type and tenure (*all regions*)

The UNE Region comprises a total of 3 900 000 hectares, of which 1 296 500 hectares is public land, and 2 603 500 hectares is private land. A total of 718 300 hectares of public land is contained within the CAR Reserve System, which includes dedicated reserves, informal reserves and values protected by prescription.

The LNE Region comprises a total of 5 799 895 hectares, of which 2 110 386 hectares is public land and 3 689 509 hectares is private land. A total of 1 422 400 hectares of public land is contained within the CAR Reserve System, consisting of dedicated reserves, informal reserves and values protected by prescription.

The total area of the Eden Region is 814 249 hectares, of which 473 434 hectares is public land, and 340 815 hectares is private land. A total of 298 765 hectares of public land is contained within the CAR Reserve System, consisting of dedicated reserves, informal reserves and values protected by prescription.

The modelled area and reservation status of each forest and non-forest ecosystem in the UNE, LNE and Eden regions are contained in Tables 1A and 1B in Attachment 1 of the North East RFA (Commonwealth of Australia and the State of New South Wales 2000), and Table 1 in Attachment 1 of the Eden RFA (Commonwealth of Australia and the State of New South Wales 1999), respectively. This information has not been reproduced here, but it provides one means of identifying forest ecosystems that need to be conserved.

These tables indicate 151 forest ecosystem types occurring within the UNE Region covering an area of 2 165 824 hectares. In the LNE Region, 188 forest ecosystem types are identified, covering an area of 3 173 235 hectares. In the Eden Region, 56 forest ecosystem types are identified, covering an area of 533 414 hectares. Within the UNE Region, 31 forest ecosystem types have been classified as rare, 19 as vulnerable, and one as endangered. In the LNE Region, 44 forest ecosystem types have been classified as rare, 33 as vulnerable, and two as endangered. For the Eden Region, 12 ecosystem types were classified as rare, nine as vulnerable, two as endangered, and one rare and endangered.

SFNSW identified 156 forest and non-forest types occurring within its estate in the UNE Region. In the LNE Region 168 forest and non-forest types were identified on the SFNSW estate, and 61 within the Eden Region. Areas for each forest and non-forest type is contained in the Appendix of the *Annual Report on the Monitoring of Criteria and Indicators for Ecologically Sustainable Forest Management: Upper North East, Lower North East and Eden Regions 1999/2000* (DUAP currently in preparation).

3.2.2 INDICATOR 1.1 Extent of forest ecosystem types and vegetation types by growth stage (Eden Region only)

INDICATOR 1.1.b Area of forest type by growth stage distribution by tenure (UNE/LNE regions only)

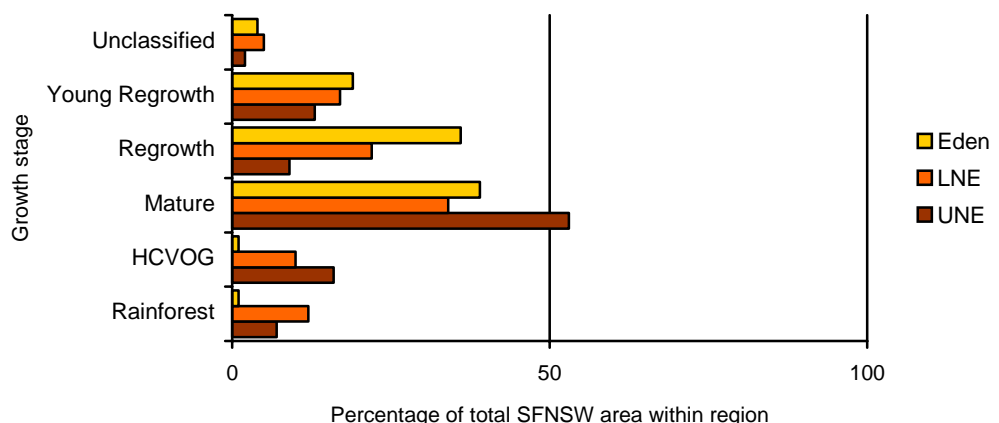
NPWS, in consultation with DLWC, DUAP and SFNSW, is currently refining CRAFTI data by mapping the extent of forest type by growth stage in the UNE Region, followed by ecosystem modelling and predictive modelling of species habitat across all tenures.

Following the completion of CRAFTI for the UNE Region a similar project will be completed for the LNE Region (excluding the Hunter sub-region south of the New England Highway and the Mussellbrook-Merriwa Road). The LNE Region work will derive forest growth stage, ecosystem modelling and predictive modelling of species habitat across all tenures.

This information for the LNE and UNE regions, will provide spatially accurate data for private land and will assist in completing a range of government programs including regional vegetation management plans and the State Biodiversity Strategy.

Figure 1 illustrates forest growth stages within State forests in the UNE, LNE and Eden regions. A total of 99 307 hectares of rainforest was identified across all three regions, 122 029 hectares of high conservation value old growth forest (HCVOG), 471 593 hectares of mature forest, 209 134 hectares of regrowth forest, and 172 827 hectares of young regrowth forest. The remaining 39 259 hectares are still to be classified.

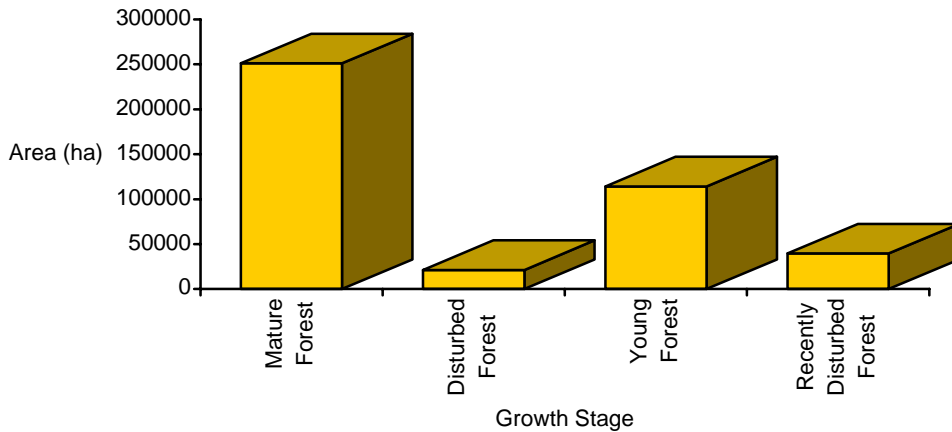
FIGURE 1: FOREST GROWTH STAGES WITHIN STATE FORESTS IN THE UNE, LNE & EDEN REGIONS - 1999/2000



Source: SFNSW (2000 unpublished)

Figure 2 illustrates the growth stages in public forests for the Eden Region in 1997. In the Eden Region 251 104 hectares mature forest was identified (59% of total area), 21 325 hectares (5%) of disturbed mature forest, 114 294 hectares (27%) young forest, and 39 545 hectares (9%) recently disturbed forest.

FIGURE 2: FOREST GROWTH STAGES ON PUBLIC LAND IN THE EDEN REGION - 1997

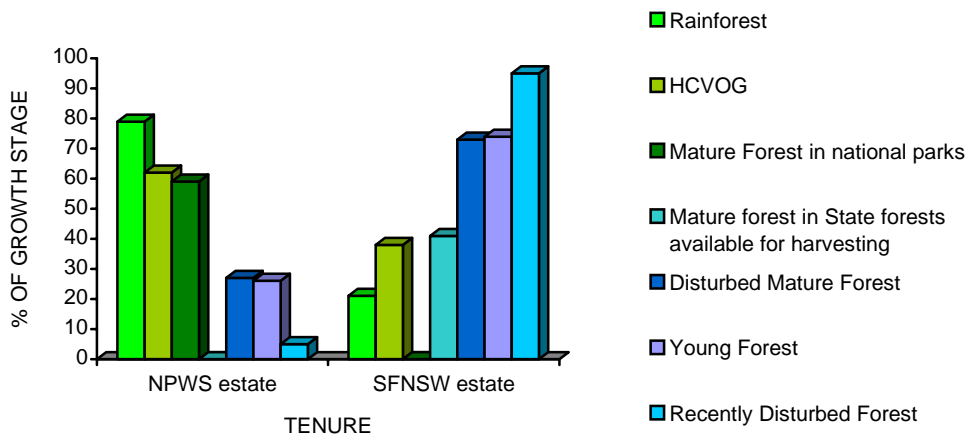


Source: ESFM Group (1998b)

In the Eden Region, NPWS is currently completing two validation projects to obtain accurate data on current forest types and growth stages within its estate. The forest ecosystem validation projects will provide the basis for ongoing monitoring. Although incomplete, interim data indicates a 1% reduction in the area of old growth and mature forests within the national park estate in the Eden Region, due to incorrect mapping of forest growth stages. This discrepancy reflects an over estimation of old growth forest types during the CRA mapping process.

Figure 3 illustrates growth stages by tenure in the UNE Region on public land using the CRAFTI data. Of rainforest in public tenure in the UNE Region, the national park estate holds 79% (99 466 hectares) and State forest 21% (26 715 hectares). Of mature forest the national park estate holds 59% (230 656 hectares) and State forest 41% (160 092 hectares). State forest contains the largest areas of disturbed mature forest (73%), young forest (74%) and recently disturbed forest (95%).

FIGURE 3: GROWTH STAGES ON PUBLIC TENURE IN THE UNE REGION - 1999/2000

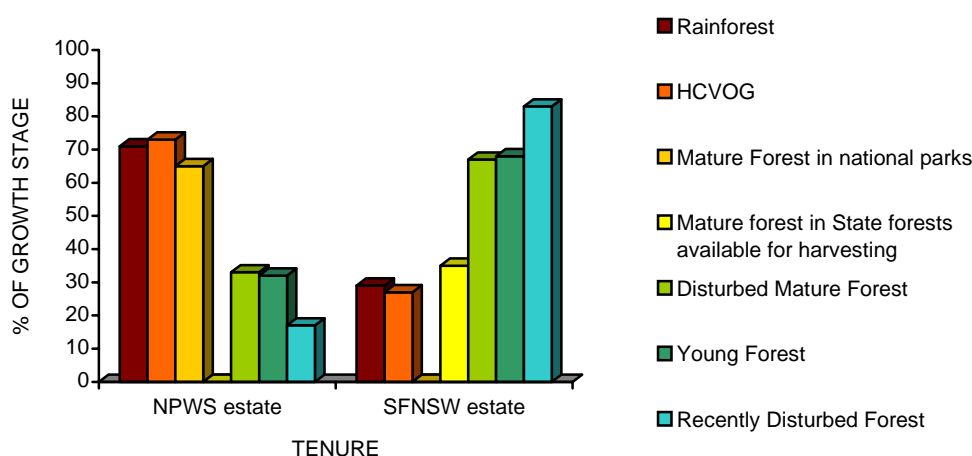


Source: NPWS (unpublished data)

Figure 4 illustrates growth stages by tenure in the LNE Region on public land. However, the information below provides data on only part of the LNE Region for which detailed CRAFTI mapping is available (i.e. 4 568 380 hectares north of the Hunter River). During the CRA, modelled data were used across the remaining 1 232 533 hectares, and these are not represented below.

Of rainforest in public tenure in the LNE Region, the national park estate holds 71% (137 250 hectares) and State forest 29% (57 427 hectares). Of mature forest the national park estate holds 65% (234 792 hectares) and State forest 35% (125 824 hectares). State forest contains the largest areas of disturbed mature forest (67%), young forest (68%) and recently disturbed forest (83%).

FIGURE 4: GROWTH STAGES ON PUBLIC TENURE IN THE LNE REGION - 1999/2000



Source: NPWS (unpublished data)

3.2.3 INDICATOR 1.1.e Fragmentation of forest types (UNE/LNE regions only)

An important objective of planning for long-term conservation of biodiversity is the provision of a network of protected areas where patches of habitat of suitable quality and size are connected across the landscape. Habitat corridors linking key habitats play an important role in achieving landscape connectivity. During the year, flora and fauna data, collected in the regional forest assessment process for the northern regions, were combined and interpreted to produce maps indicating areas with high concentration of species (key habitats) and linkages (habitat corridors) between them.

This information is contributing to the bioregional assessment of the north coast and northern tablelands bioregions. The outputs from this project are also making a significant contribution to regional vegetation and water planning within North East NSW. It will also assist regional and local environmental planning and regional vegetation and water management committees in their planning.

NPWS has established a research project to identify key habitats and corridors in the Richmond Region. This project refines the systematic consideration of fauna, as a conservation focus, across the landscape through the summary and integration of priority species' modelled habitat distributions as both fundamental biodiversity entities and surrogates for ecological processes.

Further to this, the promotion of Voluntary Conservation Agreements (VCAs) on private land is continuing throughout NSW. VCAs are legally binding agreements negotiated between a landholder and the Minister for the Environment to protect the natural and cultural values of the land. A Plan of Management, negotiated at the same time, outlines how the area will be managed in order to maintain the identified conservation values. During 1999/2000 32 VCAs were signed across NSW, bringing the total to 81, covering an approximate area of 6 500 hectares. Three VCAs were signed in the Hunter area in the LNE Region, and six VCAs were signed in the UNE Region.

3.2.4 INDICATOR 1.2 Extent of connectivity in the forest landscape in relation to threatened species habitat, general retained habitat on public and private land, and conservation reserves (*Eden Region only*)

An assessment of remnant forest types on private land in the Eden Region is currently being undertaken. The assessment is being led by the Bega Environment Centre in conjunction with NPWS, SFNSW, Bega Valley Shire Council and private landholders. The objective of the assessment is to assist in determining what land is required to develop connectivity across the landscape.

The promotion of VCAs is continuing throughout the Region. During 1999/2000 within the Eden Region, 14 VCAs were signed, most of which were around the South East Forest National Park, creating a functional connection between the Tantawangalo and Yurammie areas.

Connectivity corridors are in place within State forests from the coast to the escarpment, for example the Yurammie/Tantawangalo area. Furthermore, connectivity is incorporated into the silvicultural system adopted by SFNSW.

SFNSW and NPWS will implement a system to measure and monitor connectivity across the landscape.

3.2.5 INDICATOR 1.2.a A list of forest dwelling species (*UNE/LNE regions only*)

INDICATOR 1.3.b List of representative species by extent and abundance. Representative sample to include threatened species, key functional groups and indicator species (*Eden Region only*)

SFNSW carried out 3 196 fauna surveys within the UNE Region, resulting in 842 new records of threatened fauna species. Individual sightings included 184 of the threatened Yellow-bellied Glider, 163 of the koala, and 41 sightings of the Powerful Owl.

SFNSW carried out 3 304 fauna surveys in the LNE Region, generating 1 162 new individual records of threatened fauna species. These sightings included 187 records of the Yellow-bellied Glider, 107 of the koala, and 14 sightings of the Hastings River Mouse.

Within the Eden Region, 992 surveys were carried out, generating 158 new records of threatened fauna species, including 82 of the Yellow-bellied Glider, nine of the Giant Burrowing Frog, 14 of the Sooty Owl and 42 of the Glossy Black Cockatoo.

SFNSW identified habitat areas within SFNSW lands for threatened species. Habitat areas were determined by identifying the area of forest type (identified by *Research Note 17: Forest Types in NSW*, Forestry Commission of NSW 1989) and multiplying it by a figure of suitability for each species (between 0 and 1 derived from forest structure). Results of these calculations are contained in Table 4.

TABLE 4: CALCULATED HIGH VALUE HABITAT AREAS ON SFNSW LAND

SPECIES	UNE REGION	LNE REGION	EDEN REGION
Koala habitat	171 543 ha	106 422ha	792 ha
Greater Glider habitat	11 783 ha	23 621 ha	9 067 ha
Squirrel Glider habitat	6 135 ha	4 140 ha	2 ha

Source: SFNSW (2000 unpublished)

NPWS is currently developing a system to record and monitor the habitat and abundance of all flora and fauna species in UNE and LNE regions. Monitoring of extent and abundance is currently undertaken by various means and monitoring covers the following species and populations:

- a number of threatened plants, including *Elaeocarpus* sp. Minyon, *Olearia flocktoniae* and *Eleocharis tetraquetra*;
- populations of Giant Barred Frogs *Mixophyes* spp. on public land through financial support from the University of Newcastle and Southern Cross University;
- a number of threatened fauna species, including Bellinger River Emydura *Emydura macquarieii* (Bellinger River), as part of an assessment of the effectiveness of fox control methods.

NPWS has been developing a monitoring system with statisticians from the Australian National University to monitor Rufous Scrub Bird populations. This system will be applicable to other species and habitat features.

3.2.6 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 (all regions)

SUB-INDICATOR 1.2.1.b The status of endangered populations and ecosystems as determined by legislation or scientific assessment (UNE/LNE regions only)

There have been numerous changes to Schedules 1 (endangered species, populations and ecological communities) and 2 (vulnerable species) of the *Threatened Species Conservation Act 1995*, applicable to the UNE and LNE regions, including:

- the delisting of *Pultenaea campbelli*;
- the addition of 13 flora species, including three endangered species, *Diuris arenaria*, *Persoonia pauciflora* and *Philothea myoporoides* sub sp. *obovatifolia*;
- two fauna species have been reclassified from vulnerable to endangered – the Giant Barred Frog (*Mixophyes iteratus*), and the Swift parrot (*Lathamus discolor*);
- the preliminary listing of six flora species as endangered, including *Xylosma terraereginae* and *Boronia boliviensis*;
- the preliminary reclassification of one flora species, *Lepidium peregrinum*;
- the listing of two endangered ecological communities - Sub-tropical Lowland Rainforest on Floodplain and Byron Bay Dwarf Graminoid Clay Heath; and
- the listing of the Hawks Nest and Tea Gardens koala populations as endangered populations.

There have been no changes to Schedules 1 and 2 of the *Threatened Species Conservation Act 1995* specific to the Eden Region over this reporting period.

NPWS conducted a review of flora across all tenures in the Eden Region. The review identified 1522 species of flora, of which 38 species were listed as threatened and 42 of conservation significance.

NPWS has completed two flora recovery plans in the UNE and LNE regions, and a further 43 plans are underway.

Protective measures such as the retention of hollow-bearing trees, recruitment trees, significant food resources, wetlands, heath, rocky outcrops, and caverns, tunnels, and disused mineshafts aid in the conservation of threatened species habitats. SFNSW's implementation of protective measures in the UNE and LNE regions is providing significant new information on the impact of disturbance and the effectiveness of protective measures. For example, a census of Brush Tailed Phascogales in the UNE Region has identified new records and gathered information on the species by the placing of artificial hollows. This information has been used to ensure the long term viability of the species.

NPWS is continuing to implement management measures to maintain species abundance for selected flora and fauna under the TSC Act. NPWS has established planning documentation and processes for assessment in national parks of any potential impacts of land use change on forest ecosystems and species diversity. These processes include the review of environmental factors and the identification of the location of threatened flora and fauna in plans of management for parks and reserves.

3.2.7 INDICATOR 1.3 Management measures in place to maintain species extent and abundance (interim for first five years of the forest agreement) (*Eden Region only*)

The data collated for the Eden Region in 1997/1998 identified a list of protective measures related to timber harvesting that aided the conservation of threatened species habitats. These protective measures include retention of hollow-bearing trees, recruitment trees, significant food resources, wetlands, heath, rocky outcrops, and caverns, tunnels, and disused mineshafts.

SFNSW implementation of these protective measures Eden Region is providing significant new information on the impact of disturbance and the effectiveness of protective measures. This information has been used to ensure the long term viability of the species.

NPWS has prepared nine draft recovery plans for vulnerable or threatened species or communities of flora and fauna in the Eden Region, which are expected to be finalised by the end of 2000. A further 13 statewide recovery plans that affect the Eden Region are currently in draft form and 14 preliminary surveys are underway.

3.3 Criterion 2 – Productive Capacity

This criterion is primarily concerned with the sustainable harvesting of both native forests and plantations. It monitors the area available for harvest in native forests and compares actual to predicted yields to ascertain sustainability, and if set targets are being adhered to. Monitoring also extends to non-wood forest products, such as apiculture, firewood, grazing, gravel extraction, native plants and leaf products. The criterion reports on the effectiveness of plantation establishment rates and aims to promote this as a sustainable wood source.

It sets a 100% regeneration target for harvested native forests.

3.3.1 INDICATOR 2.1.a Area of forest land and net area of forest land available for timber production (*all regions*)

Land managed by SFNSW is classified into a series of Forest Management Zones (FMZs). The primary objective of the FMZ system is to distinguish clearly between those areas of State forest managed as conservation reserves and those areas managed for timber production. Further detail on the FMZ classification system is available in the SFNSW publication '*Forest Management Zoning in State Forests*' (SFNSW 1999).

Forest Management Zones in State forests include:

- Zone 1: Special Protection
- Zone 2: Special Management
- Zone 3a: Harvesting Exclusions
- Zone 3b: Special Prescription
- Zone 4: General Management
- Zone 5: Hardwood Plantations
- Zone 6: Softwood Plantations
- Zone 7: Non Forestry Use
- Zone 8: Areas for further assessment

Within the UNE, LNE and Eden regions, SFNSW native forest zoned FMZ 4 (General Management), FMZ 3b (Special Prescription) and FMZ 8 (Areas for Further Assessment) is available for timber harvesting. On a region by region basis:

- The UNE Region contains 468 159 ha of State forest. Of this, 428 198 ha are native forest, with 253 385 ha of this potentially available for harvesting. The area available for harvesting is comprised of 204 410 ha of FMZ 4 and 2 411 ha of FMZ 3b and 46 564 ha of FMZ 8.

Various exclusions within FMZ 4, 3b and 8 occur due to prescriptions contained in the IFOA being applied during harvest planning. Some exclusions are termed "IFOA harvest exclusions" and include: stream filter strips, erosion hazard class 4, owl landscape exclusions, ridge and headwater exclusions. Further exclusions arise due to operational considerations such as unmerchantable forest types, rock, and low volume areas and these are termed "operational exclusions". Some exclusions are co-located, so it is not meaningful to itemise the impact of each. For the UNE Region it is estimated from GIS analysis that the IFOA harvest exclusions were 31 107 ha and operational exclusions were 9 634 ha (as at 30 June 2000).

Based on the above figures, 212 644 ha, or 49.6% of the native forest component of State forests in UNE is available for harvesting (ie 253 385 ha - 40 741 ha/428 198 ha = 212 644 ha).

- The LNE Region contains 562 033 ha of State forest. Of this, 518 420 ha are native forest, with 306 635 ha of this potentially available for harvesting. The area available for harvesting is comprised of 241 581 ha of FMZ 4 and 5 874 ha of FMZ 3b and 59 180 ha of FMZ 8.

The discussion above on "IFOA harvest exclusions" and "operational exclusions" in the UNE Region is also applicable to FMZ 4, 3b and 8 in the LNE Region. For the LNE Region it is estimated from GIS analysis that the IFOA harvest exclusions were 45 673 ha and operational exclusions were 20 235 ha (as at 30 June 2000).

Based on the above figures, 240 727 ha, or 46.4% of the native forest component of State forests in LNE Region is available for harvesting (ie 306 635 ha - 65 908 ha/518 420 ha = 240 727 ha).

- The Eden Region has 66 900 hectares of State forest native forest potentially available for timber harvesting (ie 41% of area of State forest native forest). The area available for harvesting is comprised of 61 000 hectares of FMZ 4 and 5 900 hectares of FMZ 3b. There is a further 71 500 hectares of FMZ 4 and 7 000 hectares of FMZ 3b that is excluded from harvesting on the basis of mapped net harvest area exclusions.

Within the UNE Region, SFNSW manages 16 387 hectares of land zoned as softwood plantation, of which 70% (11 720 hectares) is available for timber production and 30% managed for plantation protection values. There are 21 060 hectares of land classified as hardwood plantation.

Within the LNE Region, SFNSW manages 20 254 hectares of land zoned as softwood plantation. Of this, 65% (13 100 hectares) is available for timber production, with the remaining 35% managed for protection purposes. The LNE Region has 20 650 hectares of land classified as hardwood plantation.

Within the Eden Region, SFNSW manages 41 820 hectares of softwood plantation. Of this 75% (31 360 hectares) of plantation is available for harvesting, the remaining 25% is managed for protection purposes. The Eden Region has 1 100 hectares of land classified as hardwood plantation.

3.3.2 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 regions only*)

SFNSW is currently preparing data collection processes to enable full reporting to be provided by the next reporting period. However, it should be noted that growing stock can only be reported in the terms and units of FRAMES.

3.3.3 INDICATOR 2.1.b Annual removal of timber and non-timber products from forest ecosystems compared with the that estimated to be ecologically sustainable by tenure (*Eden Region only*)

Information on the annual removal of timber products is outlined in section 3.3.5 and information on the forest products that are removed is outlined in section 2.4 (Table 3). SFNSW, in consultation with NPWS, EPA, NSWF and DUAP is preparing a process for considering the sustainability of removing forest products.

3.3.4 INDICATOR 2.1.d Annual removal of wood products compared to sustainable volume (*UNE/LNE regions only*)

In the UNE Region during 1999/2000, harvesting included 132 525m³ of High Quality Large sawlogs, girders and veneer logs from native forests and hardwood plantations. This was 102% of the committed volume¹ of High Quality Large sawlogs and veneer logs harvested from SFNSW native forest and hardwood plantation areas. The supply is

¹ Under the terms of each forest agreement the actual volume harvested of native timber may vary from the committed volume by 25% within any one year and 5% over a five year period.

For UNE: *HQ sawlogs and veneer*: Calculated using a sustainable volume of 115,800 m³ per annum, as extrapolated from the Integrated Forestry Operations Approval [109,000 m³ per annum + 19,770 m³ per first 5 years (pro-rata is 3,954 m³)+ 2,846 m³ carried forward]. The 2846 m³ is carried over in the first year only.

based on commitments made by the NSW Government in the UNE Region Forest Agreement.

In the LNE Region during 1999/2000, harvesting included 165 654m³ of High Quality Large sawlogs and veneer logs. This was 98% of the committed volume² of High Quality Large sawlogs and veneer logs harvested from SFNSW native forest and hardwood plantations. The supply is based on commitments made by the NSW Government in the LNE Region Forest Agreement.

A total of 81% of the committed volume of High Quality sawlogs and veneer logs were harvested from the SFNSW softwood planted forest over 1999/2000 in the UNE and LNE regions.

3.3.5 INDICATOR 2.1.d Annual removal of timber products and non-timber products from forest ecosystems by volume (*Eden Region only*)

In the Eden Region during 1999/2000, 103% of the allowable volume³ of High Quality sawlogs and veneer logs was removed from the SFNSW native forest, calculated using a sustainable volume of 23 000 m³ per annum as designated in the IFOA for the Eden Region. A total of 102% of the committed volume of pulp grade logs is harvested from native forest, based on a sustainable volume of 345 000 tonnes per annum as set out in the IFOA for the Eden Region.

For softwood plantations, 63% of the wood supply agreement volume of High Quality sawlogs and veneer logs was removed, and 100% of pulp grade logs.

Activities conducted on State forests in the Eden Region included grazing, firewood collection, apiary, and research, and these activities were valued at \$108 400. A total of 7 151 hectares of SFNSW land is used for grazing through land being dedicated as Crown Leases, or identified as Occupation or Grazing permits. There were 56 apiculture sites located within State forests. A total of 691 tonnes of firewood was removed, 86 wood blocks, and 21 000 tonnes of gravel, rock or sand from quarrying activities.

3.3.6 INDICATOR 2.1.f Area and percentage of plantation established meeting effective stocking one year after planting (*all regions*)

In 1999/2000, 5 535 hectares of hardwood planted forest was established in the UNE and LNE regions, reaching a 100% effective stocking rate. The establishment of softwood plantations in 1999/2000 included 481 hectares in UNE Region, 120 hectares in LNE Region, and 362 hectares in the Eden Region.

The survival rates assessed after planting for softwoods were:

- UNE Region reached 81%;
- LNE Region reached 100%;

² Under the terms of each forest agreement the actual volume harvested of native timber may vary from the committed volume by 25% within any one year and 5% over a five-year period.

For LNE: HQ sawlogs and veneer. Calculated using a sustainable volume of 170,592 m³ per annum, as extrapolated from the Integrated Forestry Operations Approval [160,000 m³ per annum + 23,407 m³ per first 5 years (pro-rata is 4,681 m³)+ 5911 m³ carried forward]. The 5911 m³ is carried over in the first year only.

³ Under the terms of each forest agreement the actual volume harvested of native timber may vary from the committed volume by 25% within any one year and 5% over a five year period.

For Eden: HQ sawlogs and veneer. Calculated using a sustainable volume of 23 000m³ per annum, as designated in the Integrated Forestry Operations Approval.

Pulp Grade Logs: Calculated using a sustainable volume of 345 000 tonnes per annum, as designated in the Integrated Forestry Operations Approval.

-
- Eden Region reached 100%.

This survival rate is sufficient to ensure an adequate establishment outcome and an effective stocking rate.

3.3.7 INDICATOR 2.1.g Area and percent of harvested area of native forest effectively regenerated (*all regions*)

Over this reporting period, SFNSW undertook one regeneration survey in the UNE Region (200 hectares), and one survey in LNE Region (30 hectares), both reporting adequate regeneration. In the Eden Region 22 regeneration surveys were undertaken, covering an area of 662 hectares reporting adequate regeneration.

A cost effective sampling system for regeneration surveys is being developed by SFNSW in consultation with regional staff and the sampling method will be discussed with DUAP.

3.3.8 INDICATOR 2.3 Standing volume of log stocks by species groups and diameter at breast height class for multi-aged native forest and available for timber production by land tenure (*Eden Region only*)

No information provided by SFNSW for this reporting period but information will be provided for next report.

3.4 Criterion 3 – Forest Health and Vitality

Criterion 3 identifies processes or agents which may be detrimental to forest ecosystem health and vitality, namely pests, weeds, fire, feral animals and disease. The indicator addresses the impact of these agents, and identifies the area of forest affected by any one of these.

The criterion guides the development of remedial/preventative actions once threats have been identified.

3.4.1 INDICATOR 3.1 List of biological factors influencing forest health and vitality including weeds, feral animals, insects and diseases (*Eden Region only*)

INDICATOR 3.1.a Area and percentage of forest affected by processes or agents that may change ecosystem health and vitality (narrative as interim) (*all regions*)

Biological Factors

NPWS reports a 10 hectare outbreak of dieback in Barool National Park located in the UNE Region and further outbreaks have occurred in Richmond Range, Willi Willi, Yabbra and Toonumbar national parks. The reasons for these dieback occurrences have not yet been determined, but they are likely to be associated with bell-miners.

Bell-miner induced dieback is currently not adversely impacting on forest health within national parks in the Eden Region, with an estimated area of less than 100 hectares affected. However, further research and monitoring is continuing and is extending into private lands.

Monitoring by NPWS of *Phytophthora cinnamoni* dieback in the Eden Region is currently determining its extent and impact on forest ecosystems and this monitoring is assisting in the development of management plans. Initial results indicate dieback

occurrences in Ben Boyd, Mt Imlay and Egan's Peak national parks and two sections of the South East Forest National Park.

NPWS is also aware of extensive *Lantana camara* (lantana) infestation in some reserves.

Herbivorous insects have affected 3 910 hectares of SFNSW's hardwood plantations (post 1995 plantings) across all regions. Insect or fungus infestation affected 21% of new hardwood and 9% of new softwood plantations in the UNE Region. In the LNE Region, 5% of hardwood plantations and 9% of softwood plantations were affected by insect or fungal infestation. In the Eden Region 10% of softwood plantations were affected by insect or fungal infestation.

SFNSW conducted surveys for various soil pathogens, including *Phytophthora*, *Pitium* and *Amelaria* spp. Surveys were conducted predominantly in softwood and hardwood plantations, with further surveys carried out in other areas as required. Results of these surveys recorded no soil pathogens within any region.

The most widespread noxious weed infestations within State forests in all regions were blackberry and lantana.

Control

Various control programs in the UNE, LNE and Eden regions have been implemented to reduce the negative impacts of agents or processes (i.e. weeds, pests, disease) on forest health. Priority has been given to those negative agents that have the greatest impact on rare ecosystems and threatened species. Most control programs depend on cooperative management with adjacent land managers and communities.

Goat control programs by NPWS have reduced goat numbers in the South East Forest and Wadbilliga National Parks in the Eden Region. This has been particularly important in protecting rare plant communities associated with rocky outcrops from grazing by goats. Anecdotal evidence suggests that the number of goats grazing in these areas has been significantly reduced.

Following the implementation of control programs, NPWS reports a reduction in the number of feral pigs and goats in the Oxley Wild Rivers, Werrikimbe, Mummel Gulf, Nowendoc, Warribah, Boorolong, Ironbark and Mt Yarrowyck reserves within the UNE and LNE regions.

NPWS is continuing 1080 baiting on the national park estate for the control of wild dogs. Monitoring is taking place to track the effectiveness of the program and identify any adverse effects it may have.

SFNSW has identified the following introduced or feral animals in preparing management plans across its estate: pigs, deer (at least two species), cattle, horses, goats, foxes, wild dogs and cats. Control programs are in place to reduce impacts of feral and introduced predators in all regions. Foxes, cats and dogs are widespread across all regions.

Draft strategic control plans, in accordance with IFOA requirements, have been prepared by SFNSW for the control of feral and introduced predators. These plans have been developed in close consultation with NPWS.

Wild dogs are the most ubiquitous feral predator affecting SFNSW lands, with an estimated extent of 373 700 hectares across all regions. Working teams have been

established with other agencies to coordinate dog control in all SFNSW regions. Fox control activities are widespread. NPWS, in conjunction with SFNSW, has prepared the Fox Threat Abatement plan under provisions of the TSC Act. Control mechanisms for wild dogs and foxes will be included in feral animal management plans as required by the IFOAs and implemented over the next year.

SFNSW sponsored an honors thesis at Sydney University to test the value of various styles of bait delivery for wild dogs and foxes, particularly with regard to bait take-up by the non-target native species, the Spotted-tailed Quoll. The Forest Management Division of SFNSW has financed a monitoring program on quolls to test the effect of aerial baiting of wild dogs and foxes. This clearly showed an immediate and negative impact on quoll health and numbers.

Various weeds have been controlled within the national park estate in the UNE and LNE regions (e.g. Bathurst Burr and Prickly Pear). There have been six releases of biological control for lantana in the Oxley Wild Rivers National Park.

In the Eden Region, NPWS in cooperation with the Rural Lands Protection Board, SFNSW and private land holders, has undertaken 402.5 person days of animal pest control within the national park estate during this reporting period. Work is being conducted in conjunction with threatened species monitoring.

In the Eden Region, draft pest and weed management plans have been prepared by NPWS and control programs have been extended over new areas of the national park estate.

NPWS is currently carrying out a review of all pest control programs across all regions. Findings from this review will be incorporated in the normal process of reviewing Plans of Management. Currently NPWS has 60 pest management programs underway in the UNE and LNE regions.

NPWS is also developing a monitoring program on a number of threatened species to assess the effectiveness of fox control methods, as part of the Fox Threat Abatement program.

NPWS is reviewing existing data management systems with the aim of improving monitoring processes and upgrading its record management on pest species control. An improved system for tracking changes in pest numbers and assessing the efficiency of its programs is being implemented.

New data recording programs are being implemented to improve NPWS's ability to report on the impact of its pest species programs. This will allow provision of more detailed information in subsequent reports, as well as improving the efficiency of pest control programs.

3.4.2 INDICATOR 3.2 Impact of fire on forest-related values (*Eden Region only*)

This indicator applies only to the Eden Region. However, data are provided for all regions.

During 1999/2000 there were a total of 26 wildfires across SFNSW lands within the UNE, LNE and Eden regions. In the Eden Region 0.02% of State forests experienced wildfires, 0.12% in the UNE Region, and 0.01% of in the LNE Region. None of the wildfires were classified as severe (i.e. more than 70% of individual tree crowns in a forest are burnt).

In the Eden Region, eight wildfires were reported by SFNSW in the region, which burnt 50 hectares of SFNSW native forest. No wildfires affected any plantation areas within the SFNSW estate in Eden Region. In the UNE Region, eight wildfires were reported by SFNSW within its estate, which burnt out 509 hectares of SFNSW native forest, and one hectare of plantation. In the LNE Region, 10 wildfires were reported by SFNSW within its estate, which burnt out 52 hectares of SFNSW native forest, and 25 hectares of plantation.

On the national park estate during the 1999 calendar year, a total of 30 wildfires burnt 7 483 hectares in the UNE Region and 1 092 hectares in the LNE Region. Thirteen prescribed burns covered 1 665 hectares in the UNE Region and 1 496 hectares in the LNE Region. Two wildfires were recorded on the national park estate in the Eden Region. Rainfall contained each wildfire to within one hectare.

3.5 Criterion 4 – Soil and Water

This criterion addresses the impact of forest activities on soil and water quality. It monitors the impact of road construction, road types and road density by use of the 'Ecologically Sustainable Roding Index' and the 'Ecologically Sustainable Crossing Index' to determine their impacts on soil and water.

It requires the monitoring of the areas of forest assessed for soil erosion hazard to minimise the impact of forest field operations.

3.5.1 INDICATOR 4.1.a Area and percentage 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 regions only)

SFNSW will be exhibiting in September 2000 the Draft Strategic Road Network Model Plan for its lands, and SFNSW will then seek approval from DUAP. A Plan of Management for roads and fire trails for each SFNSW management area will be completed once the model plan is approved, in accordance with the requirements set out in the IFOAs.

No new roads have been constructed within the national park estate in the UNE, LNE or Eden regions over this reporting period. In the Nadgee Wilderness Area, located within the Eden Region, 23 kilometres of roads have been closed and rehabilitated over the past 18 months. NPWS is developing an access strategy for the South East Forest National Park and Nadgee Nature Reserve to set maintenance standards and rehabilitation actions.

3.5.2 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 an ecologically sustainable crossing index (Eden Region only)

SFNSW is currently reviewing how this information may be better considered and reported on in future years. The collection of this or similar information will evolve as the road management plans are finalised. NPWS is currently reviewing access strategies for all new additions to its estate, and will implement the Roding and Crossing Indices over the next four years to improve road maintenance practices.

3.5.3 INDICATOR 4.1.a (INTERIM) Area and percentage of forested land systematically assessed for soil erosion hazard and for which site-varying, scientifically-based measures to protect soil and water values are implemented (*all regions*)

All areas of State forest are assessed for soil erosion hazard before harvesting commences as part of the harvest planning process. In the UNE Region for 1999/2000, SFNSW assessed 3.2% of the total area of native forest available for harvesting and 382 kilometres of roads in native forest. In the LNE Region for 1999/2000, SFNSW assessed 2.4% of the total area of native forest available for harvesting and 721 kilometres of roads in native forests. In the Eden Region for 1999/2000, SFNSW assessed 1.9% of the total area of native forest available for harvesting and 128 kilometres of roads in native forests. These assessments build upon the assessments undertaken in previous years prior to harvesting.

Soil erosion management measures have been incorporated into NPWS plans of management. NPWS also undertakes reviews of environmental factors to assess soil and water quality risks for projects such as campsite upgrades and road maintenance in national parks.

3.6 Criterion 5 – Global Carbon Cycles

This criterion addresses the contribution to the global carbon pool of carbon from forest and forest products and contributes to Australia's obligations under the Kyoto Protocol.

3.6.1 INDICATOR 5.1.a Total forest ecosystem biomass and carbon pool, and if appropriate, by forest type, age class, and successional stages (*all regions*)

NPWS has not undertaken any activity that has reduced carbon levels within its estate over this reporting period. It is proposed that all cleared lands within the national park estate will be reviewed to determine potential reforestation opportunities. NPWS is investigating the opportunity for funding reforestation using carbon credits. Supporting these investigations is a careful review of existing government policies and legislation to ensure that existing provisions for the conservation of natural and cultural heritage values are not compromised.

SFNSW report annual carbon sequestration in planted forests within each region as follows:

- In the UNE Region, the net plantation area for hardwood is 21 060 hectares, which sequestered 248 500 tonnes of carbon. The net planted softwood plantation area is 11 720 hectares, which sequestered 129 900 tonnes of carbon.
- In the LNE Region, the net plantation area for hardwood is 20 650 hectares, which sequestered 243 700 tonnes of carbon. The net planted softwood plantation area is 13 100 hectares, which sequestered 145 300 tonnes of carbon.
- In Eden Region, the net plantation area for hardwood is 1 100 hectares, which sequestered 13 000 tonnes of carbon. The net planted softwood plantation area is 31 360 hectares, which sequestered 347 800 tonnes of carbon.

3.6.2 INDICATOR 5.1.c Contribution of forest products to the global carbon budget (*all regions*)

No information is available.

3.7 Criterion 6 – Socio-Economic

This criterion addresses the economic value of forest products (including the value of timber harvested by wood type and tenure), tourism, employment and income, and cultural heritage. It monitors the use of forest recreation and tourism facilities, e.g. national parks, State forests, and the types of employment and income rates within the region.

Additionally, this criterion also addresses the need to preserve culturally significant places/sites.

3.7.1 INDICATOR 6.1 Average volume and royalty value of logs harvested per annum by species and grade by tenure (*Eden Region only*)

SFNSW harvested 37 034m³ of quota sawlogs from the SFNSW estate in Eden Region for the 1996 calendar year (ESFM Group 1998b). Of these quota sawlogs various species were harvested, including tableland species (39%), silvertop ash (25%), stringybarks (21%) and monkey gum (6%). These volumes existed prior to the forestry reforms in the Eden Region that were announced by the NSW Government in 1998, which reduced the allowable cut.

In the Eden Region during 1996, 1 227 m³ of ex-quota sawlogs were harvested, valued at \$19 000. Additionally, the following logs were obtained:

- pulp: 434 200 m³ valued at \$8.5 million;
- poles: 10 m³ valued at \$414;
- fire wood: 800 m³ valued at \$5 206;
- fencing material: 146 m³ valued at \$4 289;
- landscaping material: 6 m³ valued at \$137.

Over the 1999/2000 period, 23 735 m³ of High Quality Large sawlogs were harvested from native forest, valued at approximately \$1 million. Additionally, 70 443 m³ of softwood were harvested, valued at approximately \$2.3 million. SFNSW in 1999/2000 also harvested High Quality Small sawlogs (1 950 m³ with a value of \$40 000), Low Quality sawlogs (4 089 m³ with a value of \$63 000), pulp grade and chipwood (352 282 m³ valued at \$6.4 million).

3.7.2 INDICATOR 6.2.c Number of visits per annum (*all regions*)

INDICATOR 6.3 Availability and usage of recreation/tourism facilities (*Eden Region only*)

SFNSW and NPWS are currently investigating improved ways of collecting this information for the next reporting period.

In the Eden Region 529 000 visitors were recorded in 1999. This figure for the Eden Region represents an increase in visitation of 23 000 (4%) to national parks and reserves compared to 1997/1998 figures. A review of methods used to collect visitor numbers has commenced along with a strategic review of visitor facilities' capacity and sustainability.

There are 15 recreation facilities within State forests in the Eden Region, including picnic areas, camping grounds and forest drives. During 1999/2000, SFNSW issued 23 permits for education activities and four permits for organised outdoor recreation activities such as horse, trail and endurance rides, car rallies and bushwalking.

There were 34 recreation facilities listed in the Eden Region in 1997/1998 across both State forest and national parks. These provided a range of recreation opportunities including bush walks, camping, picnicking, swimming, four wheel driving, horse riding and fishing. Estimated usage for these sites range from one car rally in Wonboyn River National Park to 100 000 people visiting Bournda National Park.

3.7.3 INDICATOR 6.5.a Direct and indirect employment in the forest sector and forest sector employment as a proportion of total employment (*all regions*)

INDICATOR 6.4 Employment numbers by type across all forest users in the Eden region (*Eden Region only*)

In 1996 total regional employment in the UNE Region was 325 641, according to the 1996 Australian Bureau of Statistics (ABS) Census. Of this, a total of 1 471 equivalent full time (EFT) persons were employed within the forest and wood manufacturing industries (Gillespie Economics et al, 1999a).

In the LNE Region, the 1996 ABS Census recorded a total regional employment of 370 768, with 1 850 EFT employees involved in the forest and wood manufacturing industries (Gillespie Economics et al, 1999b).

SFNSW direct and indirect employment as at 30 June 2000 was 2 830 people in the UNE Region, 1 394 in the LNE Region, and 309 in the Eden Region, calculated as EFT. This employment comprised of activities in growing and managing trees, harvesting and haulage of timber, primary processing of logs, apiary, grazing, ecotourism and others, such as gravel extraction and miscellaneous timber harvesting. Direct SFNSW employment for 1999/2000 in the UNE Region was 171, which is an increase of 60 EFT employees from 1997/1998. However, EFT staff numbers have decreased in the LNE Region over 1999/2000, from 215 in 1997/1998 to 197 in 1999/2000. Direct SFNSW employment in the Eden Region for 1999/2000 is 104 EFT employees. No figures are available for 1997/1998 comparison.

During 1999/2000, NPWS employed 176.1 EFT employees in the UNE Region, and 172.5 EFT employees in the LNE Region on tasks associated with the forest agreements.

For the Eden Region, NPWS directly employed 55 persons, an increase of 35 since the implementation of the South East Reform program in 1994 which established new reserves that would later become part of the South East Forest National Park. NPWS employed an additional 19 indirect positions as a result of NPWS activities within the region, and an unknown number from the outsourcing of capital works.

3.7.4 INDICATOR 6.5 Gross income index related to forests (*Eden Region only*)

The information collected for the Eden Region in 1997/1998 (ESFM Group 1998b) illustrated that the gross annual income for the Bega Valley and Bombala Shires was:

- community - \$236 million;
- forest sector - \$16 million

No new information was provided for this report.

3.7.5 INDICATOR 6.4.c/6.6 Change in condition and number of recorded places, artefacts, sites, buildings or other structures (all regions)

Within the Eden Region in 1997/1998 there were 30 places, artefacts, sites, buildings or other culturally significant items, listed as occurring on either the NPWS or SFNSW estate.

There has been no recorded change in the number or condition of recorded sites or items of cultural significance within the national park estate over this period. No applications to destroy known relics or Aboriginal places have been lodged. Maintenance programs for Ben Boyd Tower and Davidson Whaling Station are continuing as planned. Remedial work carried out on old mine sites in the South East Forest National Park at Wolumla has improved public safety.

Models predicting areas of potentially higher concentrations of indigenous artefacts in the landscape are nearing completion. Conservation programs are continuing and access and management protocols are being developed to ensure culturally sensitive material on Aboriginal sites is not exploited.

Within State forest areas, there are 220 protected sites of Aboriginal cultural significance in the UNE Region, 394 in the LNE Region and 151 in the Eden Region. In addition, SFNSW has protected 277 non-indigenous sites of cultural significance in the UNE Region, 176 in the LNE Region and 11 within the Eden Region.

3.8 Criterion 7 – Legal, Institutional and Economic Framework

This is a very broad criterion, aiming to facilitate ESFM by ensuring plans, policies and existing legal and economic frameworks are not impediments to ESFM. It aims to ensure the recognition of both Indigenous and Non-Indigenous people in decision-making and planning processes. It notes the need for the promotion of public awareness and education, which needs to be updated regularly to reflect changing societal conditions. It facilitates mechanisms for ongoing research into forest management so to enhance and improve practices.

3.8.1 INDICATOR 7.1 (NARRATIVE) Extent to which the legal framework (laws, regulations, guidelines) supports the conservation and sustainable management of forests (all regions)

There are five principal acts which provide for the management of natural and cultural values of forested areas in NSW. These are the *Forestry and National Park Estate Act 1998*, *Forestry Act 1916*, NPW Act, TSC Act and the *Aboriginal Land Rights Act 1983* (ALR Act).

The *Forestry and National Park Estate Act 1998* has important implications for the land managed by SFNSW and NPWS and introduces a new management regime for both organisations. The Act specifically:

- transfers certain State forests and other Crown lands in the UNE, LNE and Eden regions to the national park estate or Aboriginal ownership;
- provides for forest agreements on public land, which are granted jointly by the Ministers administering the *Environmental Planning and Assessment Act 1979*, the *Forestry Act 1916*, the NPW Act, the *Protection of the Environment Administration Act 1991*, and the *Fisheries Management Act 1994*. They contain provisions that promote: ESFM; sustainable timber supply from forestry operations; community consultation on forestry operations; native title rights and interests or Aboriginal land claims and other provisions; and

-
- provides for the granting of integrated forestry operations approvals by these same Ministers. These contain conditions subject to which forestry operations are to be carried out and may contain the terms of the following licences: a licence under the PEO Act 1997; a licence under the TSC Act; and a licence under Part 7A of the *Fisheries Management Act 1994*.

The *Forestry Act 1916* provides for conservation and sustainable management of forests on the State forests estate and other forests managed by SFNSW. The Act supplies a framework for the management of a suite of different forest values including conservation, biodiversity, soil and water.

The *Forestry Act 1916* sets a benchmark for conservation by setting areas aside for timber production and flora reserves that may have otherwise been cleared or detrimentally altered. This Act also regulates the extraction and replenishment of forest resources from areas it manages, ensuring the sustainable use of forests.

The NPW Act and TSC Act provide for the conservation and management of forest and non-forest ecosystems, by protecting lands through reservation, declaration, licensing, and other off-reserve mechanisms such as VCAs.

In relation to indigenous rights, the NPW Act and the ALR Act both provide recognition of Aboriginal people's traditional and cultural ownership rights of the land. Part 4A of the NPW Act allows for the joint ownership of land by Aboriginal people/communities and the government.

The ALR Act provides the process for indigenous people to lay claim to the ownership of culturally significant lands.

Currently, both the NPW Act and TSC Act are under review to improve their capacity to deliver positive conservation outcomes, to reflect the goals of sustainable forest management and provide public awareness and education within the forest management process. The ALR Act review is intended to improve the efficiency of land claims and to enable greater participation of Aboriginal people in land management.

The Acts managed by the NPWS contain numerous public processes. For example, management planning under the NPW Act requires public exhibition of a draft plan and a call for submissions. A similar process is in place in relation to wilderness assessment pursuant to the *Wilderness Act 1987*. The current review of the NPW Act is examining ways of increasing public participation and cooperative arrangements in the conservation of biodiversity, particularly within protected areas.

3.8.2 INDICATOR 7.2 (NARRATIVE) Extent to which the institutional framework supports the conservation and sustainable management of forests (*all regions*)

SFNSW, NPWS and Aboriginal communities are currently consulting to improve Aboriginal involvement in forest management and recognition of the forests' cultural and heritage values. SFNSW employed 12 Aboriginal people, including two Aboriginal cultural heritage officers during 1999/2000, and began an Aboriginal traineeship program, with four trainees appointed.

NPWS underwent a restructure during 2000. One of the aims of the restructure was to enable the agency to deliver ecologically sustainable forest management and cultural protection requirements more efficiently. A new emphasis on community consultation and education in regard to natural and cultural heritage management has been highlighted, with the creation of the Education and Community Programs Division.

Staff training programs at NPWS have been continuing (average 3.36 day/person/year), covering fire management, geographic information systems (GIS), first aid and incident control systems (ICS). NPWS is continuing its program of training and education for SFNSW staff, concentrating on threatened species and biodiversity conservation.

This reporting period saw the establishment of numerous regional vegetation management committees under section 51 of the *Native Vegetation Conservation Act 1997*. NPWS plays an active role in these committees to assist in the integration of ESFM principles into all vegetation management activities across all land tenures. Similarly, NPWS is also incorporating these principles into bush fire management.

SFNSW reported that a total of 299 public forum meetings were held over the 1999/2000 period in the UNE Region, 598 in the LNE Region and 150 in the Eden Region. Topics covered by these forums included, bush fire and cultural management, forestry, conservation, flora and fauna management, catchment management and local emergency management.

During 1999/2000, SFNSW carried out numerous documented compliance checks to ensure they were meeting the conditions of the IFOAs. SFNSW completed 429 compliance check sheets for the UNE Region, 945 were conducted for the LNE Region and 436 for the Eden Region. For each compliance check, about 60 IFOA conditions were assessed, i.e. approximately 108 000 checks of conditions.

A total of 1 291 non-compliance incidents of conditions were recorded by SFNSW across the UNE, LNE and Eden regions. Of these, 371 were recorded in the UNE Region, 441 in the LNE Region and 479 in the Eden Region.

The majority of non-compliance records relate to soil erosion and water quality conditions, followed by flora and fauna, with some relating to other issues such as safety. SFNSW encourages the recording of all potential non-compliance incidents so that if required appropriate follow-up action can be undertaken.

In the UNE Region, 211 (57%) of the non-compliance incidents were related to soil erosion and water quality, 144 (39%) to flora and fauna, nil were related to fish habitat and passage, and 16 (4%) to other issues such as safety. In the LNE Region, 239 (54%) of the non-compliance incidents were related to soil erosion and water quality, 176 (40%) to flora and fauna, nil were related to fish habitat and passage, and 26 (6%) to other issues such as safety. In the Eden Region, 366 (76%) of the incidents of non-compliance were related to soil erosion and water quality, 76 (16%) to flora and fauna, nil were related to fish habitat and passage, and 37 (8%) to other issues such as safety.

SFNSW has developed a four-tiered monitoring and auditing policy whereby the supervision and compliance checks are undertaken across appropriate levels of management. This ensures that compliance checks are undertaken to a high standard.

The Environmental Management and Forest Practices Directorate has been established within SFNSW. It is coordinating the development of standards and systems for the assessment of compliance and to overseeing the implementation of the forest agreements.

There were two fines issued against SFNSW by the EPA. One prosecution by NPWS in the UNE Region is currently before the Courts.

3.8.3 INDICATOR 7.4 (NARRATIVE) Capacity to measure and monitor changes in the conservation and sustainable management of forests (*all regions*)

NPWS and SFNSW are both reviewing their information management systems to ensure the efficient monitoring and reporting of ESFM. This will ensure each agency has the capacity to measure and monitor changes in the conservation and sustainable management of forests.

NPWS is currently reviewing all corporate reporting accountabilities with a view to maximising the utility and efficiency of data collection. ESFM reporting is an important component of this review.

3.8.4 INDICATOR 7.5 (NARRATIVE) Capacity to conduct and apply research and development aimed at improving forest management and delivery of forest goods and services (*all regions*)

A Forest Research Liaison Committee has been formed whose function is to identify current research being undertaken on forest related issues, and identify gaps in knowledge and determine priorities for undertaking future research.

The restructure of NPWS in 2000 resulted in the formation of a Policy and Science Directorate, which combined the two previous separate areas. Also, the Threatened Species Unit has merged with the research section to enable a coordinated approach to biodiversity issues.

Coordinated research by NPWS, SFNSW and research organisations is occurring on threatened species conservation and pest and forest management.

4. COMPLIANCE WITH INTEGRATED FORESTRY OPERATIONS APPROVALS

4.1 Introduction

The IFOAs for the UNE, LNE and Eden regions were granted under Part 4 of the *Forestry and National Park Estate Act 1998*. An IFOA regulates the carrying out of certain forestry operations in State forests and other Crown-timber lands. The IFOAs have been granted jointly by the Ministers administering the *Environmental Planning and Assessment Act 1979*, the *Forestry Act 1916*, the *National Parks and Wildlife Act 1974*, the *Protection of the Environment Administration Act 1991*, and the *Fisheries Management Act 1994*.

Although the approvals (including the terms of licences) have been granted jointly by the relevant Ministers under the *Forestry and National Park Estate Act 1998*, the EPA, the NPWS, and NSW Fisheries retain their enforcement powers.

This report demonstrates the extent to which SFNSW has complied with terms and conditions of the approval by detailing compliance with:

- licences granted under the *Protection of the Environment Administration Act 1991*; the TSC Act; and the *Fisheries Management Act 1994*, as administered by responsible agencies; and
- non-licence terms including fulfilling specified undertakings (such as the preparation of model management plans) and meeting specific conditions (for example the exclusion of logging from high conservation value old growth forest and rainforest areas).

As the IFOAs for the UNE, LNE and Eden regions commenced operation on 1 January 2000; this first annual report covers only the first six months of operation of the approvals.

4.2 NPWS Threatened Species Licence under the *Threatened Species Conservation Act 1995*

The role of NPWS in the licensing of SFNSW's timber harvesting activities is to protect threatened species and their habitats. Under the IFOAs, SFNSW must comply with the requirements of the Threatened Species Licence (TSL).

4.2.1 Pre-operational planning and operational compliance

Following the appointment of specialist NPWS officers in the LNE and UNE regions, a TSL compliance investigation and auditing strategy will be developed and implemented. This will assess compliance with specific conditions of the TSL, investigate complaints of alleged illegal logging operations and investigate ways to improve the practicality of the TSL. It is expected that this will occur in early February 2001.

There will be two approaches the assessment of compliance with the TSL currently in operation. The first approach to recording incidents of non-compliance is contained in the TSL under condition 4.1. This requires SFNSW to maintain a register of all detected incidents of non-compliance with the TSL conditions. The second approach is to investigate all reports and allegations of non-compliance and to take appropriate action as necessary. Appropriate action may range from warning letters, penalty infringement notices to court proceedings.

NPWS is currently investigating the option of issuing infringement notices in lieu of court proceedings for minor offences. However, a final decision has not been made and if adopted will require staff training.

Investigations of complaints include:

- desktop assessments of the subject logging occurrence to determine whether it was covered by the IFOA conditions or the conditions of the previously applicable NPW Act section 120 licence;
- preliminary field inspections to determine the veracity of the complaint and the seriousness of any detected non-compliance; and
- detailed investigations to collect evidence where non-compliance has been detected.

During this reporting period, no penalty infringement notices have been issued but some matters have been referred to the NPWS Legal Services branch for advice on appropriate further action. In the UNE Region, one prosecution is currently before the Casino Local Court.

NPWS received six complaints about alleged illegal timber harvesting operations in the UNE Region over the six-month period to 30 June 2000, and is currently investigating these allegations. There have been four complaints regarding alleged illegal timber harvesting operations in the LNE Region for the same six-month period, and these allegations are currently being investigated. No complaints about alleged illegal operations have been recorded by NPWS for the Eden Region.

4.3 NSW Fisheries Licence under the *Fisheries Management Act 1994*

NSW Fisheries reports there were no known contraventions of the NSW Fisheries Licence under the IFOAs. NSW Fisheries assessed compliance through random inspections and through assessment of complaints received by NSW Fisheries regional offices and through notification of potential breaches from other agencies involved in the IFOAs.

Compliance with planning and on-ground conditions of the NSW Fisheries Licence is dependent on provision of detailed digital species distribution data, which is compiled following listing of species. Hence, there is an unavoidable lag time between species listing and activation of on-ground licence protection mechanisms.

The development of an inspection and monitoring system to assess compliance with the NSW Fisheries Licence is currently being investigated by NSW Fisheries.

4.4 EPA Licence under the *Protection of the Environment Operations Act 1997*

The EPA's role in the licensing of SFNSW forestry operations is primarily to protect the aquatic environment from water pollution. The environment protection licence issued to SFNSW under the PEO Act is the main tool used to achieve this goal. The IFOAs for the UNE, LNE and Eden regions contain the terms of environment protection licences under the PEO Act. Where SFNSW chooses to seek licence coverage for its forestry operations, it must comply with the site-specific planning and best management practices specified in the licence. Where SFNSW does not seek licence coverage, its operations are subject to section 120 of the PEO Act, which prohibits the pollution of waters.

4.4.1 Pre-operational planning and operational compliance

To determine whether SFNSW is complying with the conditions of the licences, the EPA has an active audit program of SFNSW forestry operations. The audit program ensures that SFNSW is taking the required measures to protect the aquatic environment. Non-compliance with conditions of the licence are dealt with: through meetings with senior SFNSW officers; warning letters; 'Clean Up' notices; penalty notices or prosecution action, as appropriate to the circumstances.

During the period 1 January 2000 and 30 June 2000, the EPA conducted six comprehensive audits in the three regions covered by IFOAs, assessing the operational and planning requirements of the licences. During the reporting period, the EPA issued penalty notices for two breaches of the licence in the LNE Region, together with warning letters for incidents of non-compliance identified as part of the audit program.

4.4.2 UNE Region

The audit program conducted by the EPA has detected some weaknesses in the construction of road and snig track drainage structures. Improved planning and construction of road and snig track drainage would improve performance in this area. SFNSW is also aware of the need to improve performance in variations to site specific planning and pre-operational planning.

4.4.3 LNE Region

Breaches detected in this region by the EPA include trees being felled and removed from filter strips and machinery operating in filter strips. Care needs to be taken when machinery is operating or when trees are felled near filter strips to prevent soil disturbance. SFNSW is also aware of the need to improve performance in variations to site specific planning and pre-operational planning.

4.4.4 EDEN Region

The EPA audits detected weaknesses in road crossing management, including road crossings that are not being drained effectively, the crossing of drainage features (streams) by structures that are not best practice and inadequate management of spoil from road construction and maintenance operations. Improved planning and construction of road crossings and drainage would improve performance in this area. Improvements in the quality of planning documentation is also required.

4.5 Non-Licence Terms

In the following discussion, non-licence terms in the IFOAs are listed as individual requirements, each including the production of a document or report or rules that must be followed when undertaking forestry operations.

4.5.1 Undertakings in the non-licence terms of the IFOA

During the first six months of operation of the IFOAs, SFNSW has:

- incorporated its policy on Aboriginal involvement in indigenous heritage management as part of its NFMS to be displayed with the draft Regional ESFM Plans in September 2000;
- completed the first report on Thinning Trials by the CSIRO in the Eden Region;
- prepared draft model plans for weed and feral/introduced animal control strategies, roads and fire trails, and grazing to be displayed with the draft Regional ESFM Plans in September 2000;
- prepared a draft model site specific burning plan; and
- completed a staff and contractor training manual.

The IFOAs require the completion of continuing tasks (periodically, monthly or annually) as a means of monitoring logging operations. Of these, SFNSW is:

- completing an Annual plan of logging operations;
- completing monthly reports which are being submitted to regulatory agencies specifying commencement and completion of harvesting operations;
- maintaining compartment records;
- making available all documents listed in section 48 of the IFOAs (at SFNSW Regional Offices);
- preparing draft plan of forest products operations;
- drafting Regional Fuel Management Plans;
- training SFNSW staff and contractors involved in forest operations on State forests. Priority areas for training have been identified for forest soil and water protection, forest harvesting (environmental management, cultural heritage management, occupational health and safety, basic first aid), wildlife management, and fire management; and
- adopting a competency based forest harvesting and forest operator licensing policy that requires individual operators to meet a minimum set of competency standards to obtain a licence to work on any State forest or other Crown-timber land.

4.5.2 Rules in the non-licence terms of the IFOA

All agencies are currently considering development of an audit and monitoring system to ensure compliance with non-licence terms of the IFOAs. Compliance systems currently used by all agencies have been identified, and ways of incorporating aspects of these systems into IFOA monitoring are being considered.

5. SIGNIFICANT ACHIEVEMENTS

5.1 Environmental Training by SFNSW

SFNSW is committed to excellence and progressive improvement in forest management through implementing best practice in all forest operations including timber harvesting.

Training and accreditation of appropriate skills will be required of all SFNSW staff and contractors involved in forest operations on State forests.

SFNSW's objectives for training and accreditation are:

- to ensure staff and contractors are competent (on the basis of appropriate education, training and/or experience) to implement forest practices in accordance with NFMS and license requirements;
- to provide for the recognition of skills held and acquired;
- to provide for transferability of skills in the employment market;
- to ensure that consistent standards are achieved; and
- to assist in the development and achievement of improved forest practices through an industry-wide training and accreditation strategy.

To meet these objectives SFNSW has adopted several strategies for ensuring SFNSW staff, contractors and their employees understand and apply the principles required to achieve ESFM.

5.2 Employment and Industry Achievements

The following achievements flow from initiatives announced in the NSW Government's decisions and funding allocations under the forest agreements:

- Transporting logs from Bombala for export from Port Kembla. This initiative is being carried out in the Eden Region, which provides a market for logs derived from softwood plantation thinning operations in the Bombala area. It directly supports ten jobs, four of which are filled by former hardwood timber workers.
- The non-commercial thinning (brushcutting) initiative is seeking to encourage forest growth to provide future high quality sawlogs to industry. A total of eight jobs are involved.
- In the Eden Region, an ongoing project of resource and inventory studies has been conducted. This is aimed at enhancing our knowledge of available regrowth timber resources that underpin the forest agreement timber commitments. It has created four jobs.
- In the UNE and LNE regions, resource inventory studies are also being conducted, with ten people employed to monitor the extent and growth of the region's regrowth timber resource.
- In the Eden Region an initiative fostering an improved consultation framework between State agencies and traditional owners on joint management issues is

underway. A database of cultural heritage sites and associated management plans for their preservation has been established.

- In The UNE and LNE regions, two Aboriginal Cultural Heritage Officers have been employed by SFNSW to give greater protection to cultural heritage and foster a closer working partnership between the Aboriginal community and government agencies. In addition, four traineeships are being offered by SFNSW to assist Aboriginal people to gain land management skills. NPWS has appointed two permanent Aboriginal Cultural Heritage officers located in Coffs Harbour and Port Stephens. During 1999/2000 a further 13 Aboriginal staff were employed by NPWS on tasks associated with the forest agreements for the UNE and LNE regions.
- Under the forest agreement, funding of \$6 million per annum allocated by the NSW Government, will allow SFNSW to establish 2 000 hectares per annum of eucalypt plantations in the years 1999 to 2003 within the UNE and LNE regions. This is in addition to plantations established through private investment or SFNSW funds. These plantations are geared for long-term sawlog production and have been established on previously cleared farmland. The plantations support at least 25 jobs each planting season. Jobs will also be created in ongoing plantation maintenance and management as well as harvesting and haulage of thinnings and sawlog products at harvesting.
- In the UNE and LNE regions, financial assistance by FISAP is being provided to limit the increase in transport costs to millers who are sourcing sawlogs from areas beyond their traditional supply areas.
- A private forestry management unit has been established and funds provided to SFNSW to manage the purchase of private timbered property and timber rights to supplement supplies from public native regrowth forests in the UNE and LNE regions.

5.3 Silvicultural Manual

A Silvicultural Manual is currently being developed by SFNSW and is to be released for public comment in September 2000. This document will set the scene for future silvicultural practice in forests managed by SFNSW. It will recognise that silviculture can enhance timber productivity complementing other managed values of the forest estate. The manual will set objectives in order to achieve a balance between conservation and timber production.

5.4 SFNSW Environmental Management Systems Development

SFNSW is developing an environmental management system (EMS) consistent with the specifications contained in Standards Australia – AS/NZS ISO 14001:1996 (Environmental management systems – Specifications with guidance for use). The EMS will assist in continual improvement of environmental management in native forests. A strategic overview of the Native Forest Management System (NFMS) has been developed as part of the EMS. The NFMS Overview is an outline of the planning, assessment, implementation, monitoring, auditing and reporting system that details how SFNSW is implementing ESFM on its native forest estate.

The NFMS contains an outline of policy, planning and operational guidelines, details clear roles and responsibilities for SFNSW's staff and external contractors, and

establishes a set of strategies, tools and information systems to develop best management practices.

The NFMS Overview will be released for public comment in September 2000 and these comments will be considered in the finalisation of the document.

The EMS will be regularly reviewed to ensure continual improvement in the management of native forests by SFNSW.

SFNSW is working on the detailed aspects of the EMS including:

- a comprehensive Management Information System to provide the platform for consistent and current instructions for State forest operations;
- a systemised consideration of environmental aspects and impacts and emergency response;
- EMS awareness, competence and training arrangements;
- a document and record management system;
- corrective actions for continual improvement;
- operational controls, monitoring and measurement;
- communication arrangements; and
- auditing.

ACRONYMS

ABS	Australian Bureau of Statistics
ALR Act	<i>Aboriginal Land Rights Act 1983</i>
CAR reserve system	Comprehensive, adequate and representative reserve system
CERRA	Central Eastern Rainforest Reserves, Australia
CRA	Comprehensive Regional Assessment
CRAFTI	Comprehensive Regional Assessment Aerial Photographic Interpretation
DLWC	Department of Land and Water Conservation
DMR	Department of Mineral Resources
DUAP	Department of Urban Affairs and Planning
EFT	Equivalent Full Time
EMS	Environmental Management System
EPA	Environment Protection Authority
ESFM	Ecologically Sustainable Forest Management
FISAP	Forest Industry Structural Adjustment Package
FMZ	Forest Management Zone
FRAMES	Forest Resource and Management System
GIS	Geographic Information Systems
HCOVG	High Conservation Value Old Growth
ICS	Incident Control Systems
IFOA	Integrated Forestry Operations Approval
LNE	Lower North East
NFMS	Native Forest Management System
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPWS	National Parks and Wildlife Service
PEO Act	<i>Protection of the Environment Operations Act 1997</i>
RACAC	Resource and Conservation Assessment Council
RFA	Regional Forest Agreement
SFNSW	State Forests of NSW
TSC Act	<i>Threatened Species Conservation Act 1995</i>
TSL	Threatened Species Licence
UNE	Upper North East
VCA	Voluntary Conservation Agreement

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APPENDIX A

STATUS OF MILESTONES FOR THE FOREST AGREEMENTS OF THE UPPER NORTH EAST, LOWER NORTH EAST AND EDEN REGIONS

Due Date		Forest Agreement Region	Ref **	Milestone	Status
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 on the 21 December 1999.
Within 7 days after 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 Agreements to the Presiding Officer of each House of Parliament occurred on 9 March 1999. Furnishing of IFOAs to the Presiding Officer of each House of Parliament occurred on 24 December 1999.
1999	All	UNE, LNE, Eden	6.16.3; 6.16.2 (E)	Wild dog control using 1080 baiting on lands managed by the NPW Act where SFNSW has given approval.	Complete Baiting underway on land transferred to the national park estate during 1999, where SFNSW has given approval for such works to be undertaken.
1999	1 Mar	UNE, LNE	3.2	Amendment of wood supply agreement with Boral.	Complete Signed 5 March 1999 taking effect from 1 January 1999.
1999	31 Mar	UNE, LNE, Eden	2.4.1 Att 8	Release and adoption of NSW Biodiversity Strategy.	Complete Strategy released in March 1999.
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. Complete IFOAs on 29 December 1999 and 5 January 2000 in the same regional newspapers, The Australian and Sydney Morning Herald.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
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 the Department of Urban Affairs and Planning.	<p>Complete Forest agreements completed on 10 March 1999 – deposited at DUAP Head Office Sydney; Newcastle, Queanbeyan and Grafton Regional Offices; SFNSW Regional Offices in Casino, Glenn Innes, Grafton, Coffs Harbour, and Eden, and NPWS Regional Offices in Port Macquarie, Armidale, Grafton, Glenn Innes, Alstonville and Merimbula.</p> <p>Complete IFOAs completed on 29 December 1999 – deposited at DUAP Head Office Sydney, Newcastle, Grafton, and Queanbeyan Regional Offices; SFNSW Regional Offices in Walcha, Taree, Casino, Eden and Coffs Harbour; and NPWS Regional Offices in Glenn Innes, Alstonville, Merimbula, Armidale and Port Macquarie.</p>
1999	1 May	UNE, LNE, Eden	6.11	Public availability of documents on the Internet, by means of the website of the Department of Urban Affairs and Planning.	<p>Complete Forest agreements were available on the DUAP website in March 1999. IFOAs were available on the DUAP website in April 2000.</p>
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>In progress Process mirrors that adopted for species newly listed in schedules of the TSC Act (stipulated in IFOAs).</p> <p>A process is also in place for the review of certain 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. Recommendation arising from such reviews are provided to the relevant Ministers for approval.</p>
1999	30 June	Eden	2.8.1	Establishment of Regional Native Vegetation Committee under the forest agreement, to promote conservation of rare or non-existent ecosystems on private land.	<p>Complete The committee to promote the protection of important ecosystems on private land for all three regions has been formed under the forest agreement and is known as the Regional Vegetation Committee. First meeting scheduled 4 October 2000. Committee includes representatives from DUAP, NPWS, SFNSW and DLWC, with the aim to promote conservation on private land of rare ecosystems and those not currently represented within the public reserve system.</p> <p>In the Eden Region, the NSW Government has allocated \$2 million dollars to fund a range of initiatives for the voluntary conservation on private land of priority ecosystems.</p>

Due Date		Forest Agreement Region	Ref **	Milestone	Status
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 key substantially unmet CAR conservation targets. A process for this and the key targets must be developed by SFNSW including consultation with NPWS and DUAP by the 30 June 1999. This is not to hinder the overall purpose of the Private Property Supplementation Program to supplement the SFNSW timber supply.	In progress Discussions are continuing between SFNSW and NPWS on the development of a process for considering unmet CAR conservation targets and facilitating timber supply when SFNSW purchases land to supplement timber supply.
1999	1 July	UNE, LNE, Eden	2.3.3	Formation of Occupation Permit Taskforce. (This taskforce will also consider issues in the Eden Region)	In progress A taskforce will be formed in November 2000, with representative from NPWS, SFNSW and NSW Farmers, to consider the impact of exclusion of grazing in FMZ 1 and FMZ 2 areas. Finalisation of exclusion or management arrangements in FMZ 1 and FMZ 2 expected by December 2001.
1999	31 Aug	UNE, LNE, Eden	6.16.2 6.16.1 (E)	Preparation of procedures for purchasing leases on land.	Deferred Procedures have not yet been prepared. No purchases have been pursued.
1999	30 Sept	UNE, LNE, Eden	2.3.3	Memorandum of Understanding regarding management of Crown reserves.	In progress Finalisation of Memorandum of Understanding between NPWS and DMR expected early 2001.
1999	30 Sept	UNE, LNE, Eden	2.3.3	Formation of a management committee regarding the management of Crown reserves.	In progress Formation of management committee pending signing of Memorandum of Understanding.
1999	1 Oct	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.	Draft Public release in March 2000 of document "Managing our Forests Sustainably: Forest Management Zoning in NSW State Forests". Mapped FMZs to be included in draft Regional ESFM Plans to be placed on public exhibition in September 2000.
1999	1 Oct	UNE, LNE Eden	2.3.1	Minister for Forestry to create informal reserves pursuant to the amended <i>Forestry Act</i> 1916, and called 'special management zones'.	Draft Informal reserves in the UNE, LNE and Eden regions to be put on public display in September 2000 with draft Regional ESFM Plans, with informal reserves to be finalised by 31 December 2001, after consideration of public comments.
1999	1 Oct	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.	Complete Process mirrors that adopted for species newly listed in schedules of the <i>Threatened Species Conservation Act 1995</i> (stipulated in the IFOAs).
1999	1 Oct	UNE, LNE, Eden	2.8 2.7 (E)	Cultural heritage management guidelines for SFNSW to be attached to the IFOA.	Complete Attached to the IFOAs for the LNE, UNE and Eden regions.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
1999	1 Oct	UNE, LNE, Eden	2.8 2.7 (E)	NPWS to review and ensure consistency with the principles contained in CRA project reports prepared by the Cultural Heritage Working Group (2000 a and b).	In progress NPWS is reviewing their statewide guidelines to ensure consistency with principles contained in the CRA project reports titled <i>Protective Mechanisms for Cultural Heritage – Generic Version</i> and <i>Protective Mechanisms for Cultural Heritage – Lower North East Region</i> (Cultural Heritage Working Group, 2000 a and b).
1999	1 Oct	UNE, LNE, Eden	6.13	Lodgement of all archival copies of data.	In progress Eden Region - 100% lodged. Draft archive sent to agencies for comment prior to finalisation by June 2001. UNE/LNE regions– 95% lodged.
1999	1 Dec	UNE, LNE	2.2.4	Preparation of Eco-field Guides.	In progress <i>The Overview of Forest Management in North East NSW</i> which forms Part 1 of the Eco-field Guide is still being prepared. Part 2 (the diagnostic component) of the Eco-field Guide has been prepared and will be exhibited with draft Regional ESFM Plans in September 2000.
1999	1 Dec	UNE, LNE, Eden	2.11.3 2.10.3 (E)	Determining a method to provide all research reports to the public.	Complete All regional forest assessment project reports have been placed in the Department of Urban Affairs and Planning Library located on Level 15, GMT 1 Farrer Place Sydney. Some project reports are also available through a link on the RACAC website (www.racac.nsw.gov.au) to the RFA website (www.rfa.gov.au).
1999	1 Dec	UNE, LNE, Eden	2.11.3 2.10.3 (E)	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.	Deferred Details to be provided by SFNSW. These details will be provided to the Forest Research Liaison Committee (first meeting scheduled 6 November 2000).
1999	1 Dec	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 DUAP Memo dated 4 February 1999, and entitled 'Procedure for dealing with lands for further consideration for reservation'.	Complete The NPWS, DMR and SFNSW have completed their review of 'areas for further consideration for reservation' and have identified some areas that may be included in the formal reserve system subject to resolving minerals and Crown reserve issues and the areas made available for timber production.
1999	1 Dec	UNE, LNE	6.16.2	SFNSW must pursue upgrading to FMZ2, any FMZ3 area that would be classed as 'available for formal reservation' but for unresolved mineral issues.	In progress Process covered by SFNSW Operational Circular <i>Guidelines for Managing FMZ on State Forests</i> . No areas have been upgraded to date.
1999	31 Dec	UNE, LNE	2.4.3	Refinement of models to identify Hastings River Mouse habitat.	Complete Refinement of micro-habitat models completed prior to the signing of IFOAs. Analysis of results of research and review program currently underway. Further refinement is ongoing.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
1999	31 Dec	UNE, 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.	In progress During 1999, in accordance with the scheduled review of State Forests' 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 price 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.
2000	1 Jan	UNE, LNE	2.5	Public exhibition of wilderness assessment report for the UNE and LNE regions.	In progress Public exhibition of the wilderness assessment report for the UNE and LNE regions by NPWS is due July 2001. NPWS is currently finalising outstanding wilderness nominations.
2000	1 Jan	UNE, LNE	2.9.1	Identification of forest ecosystems on private land which are of conservation priority for inclusion in the CAR reserve system.	In progress The forest agreements require the identification of forest ecosystem types on private land for inclusion in the CAR Reserve System (list contained in Att 2 of NE RFA, Commonwealth/NSW). Additional work on the identification of ecosystems is occurring with the revision of CRAFTI for the UNE Region due to be completed by August 2001, following which additional work can commence on the LNE Region.
2000	1 Jan	UNE, LNE	2.9.1	Establishment of a committee under the forest agreement, to look at conservation values on private land which are a conservation priority for inclusion in the CAR reserve system, and seek funding.	Complete As required by the forest agreement a Regional Vegetation Committee was formed. First meeting scheduled 4 October 2000. Committee includes representatives from DUAP, NPWS, SFNSW and DLWC. The Committee will identify existing processes, which promote the conservation on private land of ecosystems that are rare or not adequately represented in the public reserve system.
2000	1 Jan	UNE, LNE, Eden	2.11.3 2.10.3 (E)	Preparation of strategy to outline all monitoring and research to be undertaken.	Draft A joint research and monitoring strategy is to be completed as part of the Research Liaison Committee, first meeting scheduled 6 November 2000. SFNSW is to exhibit a draft monitoring and reporting strategy with the Regional ESFM Plans in September 2000. After consideration of public input the strategy will be finalised as part of the Regional ESFM Plans in December 2001. A strategic plan for SFNSW's research division is revised each year. A biodiversity research strategy is being developed by NPWS under the State Biodiversity Strategy and an inter-agency working group has been established to progress this task

Due Date		Forest Agreement Region	Ref **	Milestone	Status
2000	1 Jan	UNE, LNE, Eden	2.13.4; 2.12.4 (E)	Preparation of a memorandum of understanding on joint road and trails maintenance and access arrangements.	Complete – UNE/LNE regions Memorandum of Understanding signed by SFNSW and NPWS in January 2000. Implementation guidelines are currently being finalised and field tested. In progress – Eden Region Memorandum of Understanding currently being prepared.
2000	1 Jan	UNE, LNE, Eden	6.15	Devise and implement a coordinated complaint handling and response system.	Draft Inter-agency liaison continuing, draft system outlining procedure for dealing with public complaints is being completed. Due for completion in the first half of 2001.
2000	1 April	UNE, LNE, Eden	2.2.1	Preparation of Regional ESFM Plans and that these must be subject to public exhibition and consultation.	Draft Draft Regional ESFM Plans have been completed for the UNE, LNE and Eden regions and are to be placed on public display in September 2000. Plans include timetable for the preparation of working plans for flora reserves; strategy for management of informal reserves and areas management by prescription and SFNSW policy on Aboriginal input into forest management. The Regional ESFM Plans will be finalised by 31 December 2001.
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 the Regional ESFM Plans.	Draft Public release of FMZ in March 2000 and document <i>Managing Our Forests Sustainably: Forest Management Zoning in NSW State Forests</i> . Mapped proposed FMZs included in draft Regional ESFM Plans to be placed on public exhibition in September 2000.
2000	1 April	UNE, LNE, Eden	2.2.4 Att 6	Preparation of SFNSW Forest Practices Code: Part 5 – Wildlife Management in Native Forests.	Draft Internal review before placing on public exhibition in 2001.
2000	1 April	UNE, LNE, Eden	2.8 2.7	Finalisation of SFNSW policy on Indigenous and Non-Indigenous cultural heritage.	Draft Policy incorporated into draft Regional ESFM Plans on public display September 2000. Part of the NFMS Overview includes policies on 'Cultural Heritage', 'Protection of Indigenous Interests and Values' and 'Protection of Non-Indigenous cultural Heritage'. Subject to period of public comment and presentation and discussion with stakeholders, e.g. NSW Aboriginal Land Council.
2000	1 April	UNE, LNE, Eden	2.11.2 2.10.2 (E)	Preparation of an evaluation framework for the criteria and indicators, to provide basis for five-year review.	Draft Draft framework has been developed and is undergoing further refinement. Inter-agency consultation to occur in early 2001.
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 this period. Therefore, Minister for Forestry has not considered any new agreements.
2000	1 April	Eden	3.2	Amendment of wood supply agreement with Harris Daishowa Australia.	Complete Signed 5 March 1999, amended 29 September 1999.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
2000	1 April	UNE, LNE, Eden	4.2	Additional reporting and consultative mechanisms for NPWS (e.g.. State of the Parks report', NPWS Advisory Council, District Advisory Committees).	<p>In progress State of the Parks report due August 2001.</p> <p>Review of composition and role of NPWS's District Advisory Committees complete, with formation of 21 new Regional Advisory Committees across the State with membership including Aboriginal communities, women, local government and farmer groups. The role of these committees has been broadened to provide advice to NPWS on full range of natural and cultural heritage conservation matters both on and off reserve.</p> <p>Proposed Parknet system will facilitate public awareness.</p>
2000	1 April	UNE, LNE, Eden	4.3	Additional reporting mechanisms for SFNSW (e.g.. Plan of Operations, Regional ESFM Plans).	<p>In progress Plan of Operations complete May 2000 as per Wood Supply Agreement. ESFM/NFMS draft, on public display in September 2000. Publication of <i>Environmental and Social Values Report</i> is continuing annually.</p>
2000	1 April	UNE, LNE	5.1.1	Examination of any State forest that could be considered for co-management and joint venture arrangements.	<p>In progress SFNSW Cultural Heritage Working Group has been formed and is considering co-management arrangements within State forests.</p> <p>A number of projects under development through building relationships with local communities through pre-harvest inspection work, and drawing on previous SFNSW/Aboriginal community partnerships.</p>
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).	<p>Draft A joint draft strategy for the Eden Region has been prepared by SFNSW and NPWS and is currently being finalised. Further discussions anticipated in November 2000. Draft strategy to be taken to the Aboriginal community for discussion. A similar approach is being considered for the UNE and LNE regions.</p> <p>SFNSW have made arrangements for issuing of section 30I permits under the <i>Forestry Act</i> 1916 for non-commercial collection of materials and permits for the hunting of native animals to Aboriginal communities.</p>
2000	1 April	UNE, LNE	5.1.2	Preparation of a joint strategy to facilitate employment and development program for Aboriginal people.	<p>In progress SFNSW has implemented an Aboriginal employment and industry program for recruitment of Aboriginal people. Two Cultural Heritage officer positions and four traineeships have been appointed. Other Aboriginal people have been employed by SFNSW in other areas of SFNSW operations.</p> <p>NPWS has appointed two permanent Cultural Heritage Officers in 1999/2000, and employed a further 13 staff who identify as Aboriginal to carry out tasks related to the implementation of the forest agreements. In addition a further 12 Aboriginal staff have been employed to perform other tasks within NPWS.</p>

Due Date		Forest Agreement Region	Ref **	Milestone	Status
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 SFNSW has incorporated this strategy into their draft Regional ESFM Plans on public display September 2000. The strategy is to be presented to key Aboriginal stakeholders.</p> <p>In the Eden Region, a draft Memorandum of Understanding between the Eden Local Aboriginal Land Council and SFNSW has been drafted, which details arrangements for Aboriginal involvement in forest management, protection of cultural heritage and access to resources on State forests.</p> <p>NPWS has completed a draft strategy to increase Aboriginal community involvement in forest management in the Eden Region. The strategy is to be completed following consultation with the Aboriginal community.</p> <p>NPWS joint funding with DLWC has facilitated two Aboriginal positions to undertake assessment of cultural values in catchments in Northern rivers region. No progress on a broader strategy in the UNE/LNE regions been made due to commitments to other Aboriginal management issues. However, NPWS is undertaking various initiatives such as pursuing joint Aboriginal management arrangements in Warrell Creek, Arakwal, Stockton Bight, and cultural heritage assessment.</p>
2000	1 April	UNE, LNE, Eden	6.13	Data Management Agreement.	<p>Complete Finalised March 2000 by State members of CRA Data Management Group.</p>
2000	30 June	UNE, LNE	6.16.2	NPWS and SFNSW, in consultation with DMR, to complete negotiations on the FMZ category for State forests with mineral and lease interests.	<p>Complete Negotiations completed. FMZ categories have been determined by SFNSW following consultation with DMR and NPWS.</p>
2000	30 June	UNE, LNE	6.16.2 2.3.1	Lands must be zoned by SFNSW as FMZ2 and FMZ3 where they are encumbered by leases or have major mineral value precluding FMZ2 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.	<p>In progress In consultation with NPWS and DMR, SFNSW will determine FMZ categories prior to release of FMZs in September 2000.</p>
2000	1 July	UNE, LNE	2.3.3	Phasing out of occupation permits.	<p>In progress The majority of occupation permits will be phased out of FMZ 1 and FMZ 2 following consideration by the Occupation Permit Taskforce.</p>
2000	31 Dec	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.	<p>In progress SFNSW made arrangements for additional wood supply volumes over a two year period. 'Top-up' arrangement amount reduced by half over 2000 and will terminate by 31 December 2000.</p>
2001	1 Jan	UNE, LNE, Eden	2.2.2 2.3.2 (E)	Preparation of working plans for all flora reserves, to be incorporated into Regional ESFM Plans.	<p>Draft Timetable for preparation of plans incorporated into draft Regional ESFM Plans to be put on public display in September 2000.</p>

Due Date		Forest Agreement Region	Ref **	Milestone	Status
2001	1 April	UNE, LNE, Eden	2.1.1 Att 3 Att 4	Preparation of SFNSW EMS - Native Forest Management System.	Draft The draft SFNSW NFMS overview is to be placed on public display in September 2000, which is a major part of the SFNSW EMS. Following public consultation the EMS is expected to be finalised by 31 December 2001.
2001	1 April	UNE, LNE, Eden	2.2.8	Native forests silvicultural regimes must be implemented on State forests.	Implemented Part of post-harvest monitoring.
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.	In progress Demonstration areas established in the UNE and LNE regions and used to assist in training of forest operators. Audit process in development, with public consultation occurring as part of the public exhibition in September 2000.
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.	Draft Strategy for management of informal reserves and areas managed by prescription has been incorporated into draft Regional ESFM Plans to be placed on public display September 2000.
2001	1 April	UNE, LNE	2.7	Review of CERRA World Heritage Areas to identify any additional rainforest to be included.	In progress Possible areas for World Heritage listing presented at CERRA Committee meeting in May 2000. Briefings to Ministers and a revised strategic overview (to allow for public consultation) are currently being prepared.
2001	1 April	UNE, LNE, Eden	2.8 2.7	NPWS to review indigenous cultural heritage management processes to provide a landscape based system.	In progress Consultation with Aboriginal communities completed regarding the development of a new database for the Aboriginal sites register (Statewide). Consultation will continue with draft model expected by mid 2001. Aboriginal cultural heritage standards and guidelines to be reviewed.
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.	Complete Prepared annually for District Bush Forest Management Committee.
2001	1 April	UNE, LNE, Eden	2.13.1 2.12.1 (E)	Preparation of joint regional recreation and tourism plans.	In progress – UNE/LNE regions Progress has been delayed pending further inter-agency liaison. Deferred – Eden Region Pending signing of Commonwealth/NSW RFA for Southern as some areas of Southern to be included in the Plan.
2001	1 April	UNE, LNE, Eden	4.5	Additional reporting and consultative mechanisms, such as committees, by other agencies.	In progress Catchment management committees and State of the Environment reports have been completed. No additional committees or public participation has been required/implemented.
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 Part of the draft Regional ESFM Plans and NFMS Overview on public display September 2000.
2001	1 April	Eden	6.16.1	Pursue the voluntary purchase of any leases on State forest tenure that has been revoked.	No reporting required No purchases have been made.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
2001	30 June	UNE, LNE, Eden	2.4.4.5	D-Gs of NPWS, DUAP and CEO SFNSW to agree on the larger more significant exclusion areas of rainforest, HCVOG and other prescriptive exclusions.	In progress To be discussed as part of finalising the management plans for large areas of rainforest, high conservation value old growth and other areas excluded by prescription.
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 On ground site assessments by NPWS are complete and SFNSW has responded on the viability of harvesting. Negotiations are continuing. Rehabilitation plans have been completed for one area and another is being developed.
2002	1 Jan	Eden	2.3.3	Preparation of plans of management for Crown reserves which are adjacent to land dedicated or reserved under the NPW Act.	In progress To be prepared progressively pending clarification of legal issues.
2002	1 Jan	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).	Draft Draft strategy for management of areas managed by prescription has been incorporated into draft Regional ESFM Plans to be placed on public display September 2000. To be finalised with ESFM Plans in December 2001. Preparation of management plans for large areas of rainforest, high conservation old growth and other areas excluded by prescription will be prepared in conjunction with the Regional ESFM Plans.
2002	1 April	UNE, LNE, Eden	2.7 2.6	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 Areas yet to be finalised. Detailed briefings to Ministers and revised strategic overview are currently being prepared.
2003	1 Jan	UNE, LNE	6.16.2	NPWS to assess forest conservation values on remaining vacant Crown land in consultation with DLWC, DMR and other relevant stakeholders.	In progress Finalisation dependent on location of all remaining vacant Crown-land being supplied by DLWC, and subsequent completion of assessment by DMR.
2004	1 Mar	UNE, LNE, Eden	2.11.3 2.10.3 (E)	Preparation of a compendium of forest research.	No reporting required To be prepared through the Forest Research Liaison Committee.
2004	1 April	UNE, LNE, Eden	2.1.2 Att 3	Preparation of NPWS Environmental Management Systems.	In progress Development of EMS ongoing. Position established to progress development.
2004	1 April	UNE, LNE, Eden	2.9.2 2.8.2 (E)	Private property supplementation program, involving the purchase of timber rights or private property to assist in supply arrangements to industry must apply controls in legislation.	Implemented Program implemented – 4 properties purchased by SFNSW.
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 To be completed as part of the 5 year review.
2004	1 April	UNE	2.13.2	Undertaking of a revegetation project that includes carbon sequestration opportunities.	In progress Memorandum of Understanding has been signed. SFNSW to seek markets for plantings on NPWS estate. Preliminary statewide assessment to identify potential for reforestation of NPWS estate due at end of August 2000.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
2004	1 April	UNE, LNE	3.5	SFNSW, NPWS and DUAP will consult on appropriate spatial scales for reporting actual yields against FRAMES estimates.	In progress Preliminary discussions held to enable reporting actual versus predicted volumes in the 1999/2000 Annual Report. Further discussions between SFNSW, NPWS and DUAP to be undertaken.
2005	1 Jan	UNE, LNE, Eden	2.3.2 Att 8	Preparation of plans of management for dedicated reserves under the NPW Act.	In progress Being prepared progressively. A total of 119 plans have been adopted to date for national parks/nature reserves, with a further 46 to be exhibited or finalised for exhibition.
2005	1 Jan	UNE, LNE	2.3.3	Preparation of plans of management for Crown reserves which are adjacent to land dedicated or reserved under the NPW Act.	In progress To be prepared progressively, pending the clarification of legal issues.
2005	1 April	UNE, LNE, Eden	2.4.2	Preparation of grazing management plans, predator and feral control plans and threatened flora species management plans.	Draft Strategic plans drafted and to be placed on public display with draft Regional ESFM Plans in September 2000.
2007	1 Mar	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.
Annually		UNE, LNE, Eden	2.2.6	SFNSW reporting at statewide level through <i>Environmental and Social Values Report</i> .	Complete SFNSW have published the 1999/2000 Environmental and Social Values Report.
Annually		UNE, LNE, Eden	2.2.6	Report on progress on meeting targets in Regional ESFM Plans.	In progress Awaiting full implementation; first report 31 December 2001.
Annually		UNE, LNE, Eden	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.	Draft Cultural heritage performance reporting carried out annually, contributing to the SFNSW's annual <i>Environmental and Social Values Report</i> .
Annually		UNE, LNE, Eden	2.11.2 2.10.2 (E) Att 9	Reporting on indicators to contribute to annual report to Parliament.	Complete This Annual Report contains summarised information on criteria and indicator monitoring, with further detail contained in the <i>Annual Report on the Monitoring of Criteria and Indicators for Ecologically Sustainable Forest Management – Upper North East, Lower North East and Eden Regions, 1999/2000</i> which is currently in preparation. Improvement and development of monitoring and reporting processes for the criteria and indicators is continuing through inter-agency liaison.
Annually		UNE, LNE	3.5	Monitoring of FRAMES performance will include a comparison of actual and predicted volume each 12 month period at the RFA Region level. To be included in Annual report to Parliament.	Complete Within the allowable volumes under the IFOA, the High Quality Large sawlog production has exceeded FRAMES estimates in the UNE and LNE regions for this period by 9-19%.
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.	Complete Within the allowable volumes under the IFOA, the High Quality Large sawlog production has exceeded FRAMES estimates in the in the Eden Region for this period by 16%.

Due Date	Forest Agreement Region	Ref **	Milestone	Status
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 SFNSW are currently devising the FRAMES review program.
Annually	UNE, LNE, Eden	3.5	Report on annual production of timber products other than sawlogs.	Complete Reporting to be done on a financial year basis. Data provided for this Annual Report in Table 3.
Annually	UNE, LNE, Eden	3.5	Reporting on actual versus predicted volume at the scale determined by SFNSW, DUAP and NPWS. To be included in annual report to Parliament.	Complete Reporting to be done on a financial year basis. Actual versus predicted volumes are provided for indicator 2.1.d. (Within the allowable volumes in the IFOA, the High Quality Large sawlog production exceeded FRAMES estimates in the Eden Region by 16% and 9-19% in the UNE/LNE regions). The monitoring of timber volumes and FRAMES estimates is critical for the management of State forests. SFNSW is continuing an ongoing improvement strategy for FRAMES. Consultation will occur with other agencies on this improvement strategy and a final plan detailing how the improvement of FRAMES will be conducted is being developed by SFNSW.
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 The first Annual Report covers the forest agreements for the Eden, UNE and LNE regions and provides progress on: - Achievement of milestones in the forest agreements from March 1999 to 30 June 2000. - Monitoring of criteria and indicators by SFNSW (for the period 1 July 1999 to 30 June 2000) and NPWS (for the period from 1 January 1999 to 31 December 1999). - Compliance with the integrated forestry operations approvals from 1 January 2000 to 30 June 2000. - Discussion on significant achievements.
Annually	UNE, LNE, Eden	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 practicable after it is prepared.	Complete The Annual Report will be tabled as soon as possible in Parliament after completion.
Ongoing	UNE, LNE, Eden	2.1.1 3.6 (Eden only)	SFNSW field staff and contractors must receive appropriate competency-based training. 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.	In progress Competency-based, nationally recognised training has been developed by SFNSW. SFNSW and the timber industry have developed 'Supervising Forest Harvesting Operations' and 'Forest Harvest Operations' manuals to assist in training. SFNSW and industry employees are trained areas including soil and water, and flora and fauna, in a competency-based program.
Ongoing	UNE, LNE, Eden	2.1.2	NPWS field staff and contractors must receive appropriate competency-based training.	Complete NPWS field staff receive appropriate competency based training as required.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
Ongoing		UNE, LNE, Eden	2.2.3	Harvesting plans to be prepared for all logging operations and forest products conducted under a Timber Licence.	Complete SFNSW prepares harvesting plans for all logging operations and forest product removal conducted under a timber licence. A harvesting plan manual detailing the requirements to ensure consistency and standards has been developed.
Ongoing		UNE, LNE, Eden	2.2.5	SFNSW to employ internal audit system to ensure consistent application of standards across Crown-timber lands.	In progress SFNSW has included their policy on internal auditing in their NFMS Overview. Audit system will comprise of a four-tiered system of compliance monitoring to be implemented in all regions.
Ongoing	No less than 2 months prior to commencement of forestry activities	UNE, LNE, Eden	2.2.7	Liaison by SFNSW with DUAP, NPWS and EPA on proposed forestry operations and activities not originally covered by a 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 No amendment procedures invoked.
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 DUAP, NPWS, EPA, NSW Fisheries as outlined in IFOA arrangements.	Implemented Program implemented. Monthly notification of operations to DUAP is being provided by SFNSW.
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 NPW Act with concurrence of DMR.	No reporting required Not required until the 5-year review.
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 5 years or as required and land may be added to dedicated reserve system.	No reporting required There has been no change to mineral and petroleum interests in FMZ 2 and FMZ 3 over this reporting period. This milestone will be further considered at the five-year review.
Ongoing	As required	UNE, LNE, Eden	2.3.4	Minister for Fisheries may declare aquatic reserves under Fisheries Management Act within State forests, National Parks, nature reserves or Crown lands and develop management arrangements.	No reporting required No aquatic reserves have been declared under the <i>Fisheries Management Act 1994</i> .
Ongoing		UNE, LNE, Eden	2.4.3	Co-operation over non-licence components of the TSC Act, such as nomination of species, populations, ecological communities and key threatening processes, recovery plans, threat abatement plans and critical habitat.	In progress Co-operation has occurred as necessary, e.g. on the national nomination of Nightcap Oak, and preparation of the fox threat abatement plan and recovery plans.
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.	Implemented SFNSW process included in the provisions of the IFOAs. NPWS notification occurs as required.

Due Date	Forest Agreement Region	Ref **	Milestone	Status
Ongoing	UNE, LNE, Eden	2.4.3	Continued implementation of joint management plans such as Pine Creek Koala Management Plan.	In progress Pine Creek Koala Management Plan approved (UNE/LNE regions only). Further joint management plans to be implemented pending finalisation.
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.	Complete Process mirrors that adopted for species newly listed in schedules of the TSC Act (stipulated in the IFOAs)
Ongoing	UNE, LNE, Eden	2.4.4.1	Details the process to be followed when a species new to science is found.	Complete Process has been established and has been included in IFOAs.
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	Complete Process has been established and has been included in IFOAs.
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.	No reporting required No new information requiring a review has occurred to date.
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 Aboriginal Sites Register).	In progress Funds have been secured to assist development. NPWS has commenced community consultation to determine user requirements and management issues e.g. appropriateness of listing of Aboriginal places.
Ongoing	UNE, LNE, Eden	2.8 2.7 (E)	Updating of section 170 register, sites of state significance will also be listed.	In progress A review of the section 170 register has commenced. NPWS lacks funding this period for updating of non-Aboriginal items. Discussions are being held with relevant stakeholders on the appropriateness of listing of Aboriginal places.
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).	In progress VCAs being promoted in all regions, with 32 VCAs signed across NSW during 1999/2000. This brings the total number of VCAs across the State to 81, covering approximately 6 500 hectares.
Ongoing	UNE, LNE, Eden	2.11.2 2.10.2 (E)	Monitoring of ESFM criteria and indicators.	In progress Discussions held with DUAP and SFNSW on approach, with view to upgrading SFNSW <i>Environment and Social Values Report</i> to include ESFM indicators. NPWS monitoring of criteria and indicators have been implemented in the Eden Region and planning underway for implementation in the UNE and LNE regions.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
Ongoing		UNE, LNE, Eden	2.12 2.11 (E)	Co-operative programs in addressing noxious weed control, feral animal control and other matters relating to forest health.	In progress SFNSW Feral and Introduced Predator Control Plans to be included in draft Regional ESFM Plans on public display in September 2000. To be finalised following consideration of comments and discussion with regulatory agencies. NPWS in the UNE/LNE regions are progressively incorporating co-operative programs into pest and weed strategies already in place. In the Eden Region, NPWS are working with SFNSW and Rural Lands Protection Board to co-ordinate pest and weed management programs across the region to manage efficiencies and ensure consistency of approach.
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 New proposal being developed by SFNSW.
Ongoing		UNE, LNE, Eden	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 development of Plans of Operation.
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 SFNSW finalising approach including pre and post harvest assessment method and growth and other model refinement for consultation with DUAP and NPWS.
Ongoing		Eden	3.5 Att 8	Refinement of resource availability by improving the inventory such as additional plot measurements.	In progress Program being developed. Work to date includes the identification of permanent growth and extra plots to improve measurement of resource availability.
Ongoing		UNE, LNE, Eden	3.5	SFNSW consultation with NPWS and DUAP on the terms and conduct of the FRAMES assessment.	In progress SFNSW finalising approach including pre and post harvest assessment method and growth and other model refinement for consultation with DUAP and NPWS.
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 Ongoing program.
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 SFNSW are finalising an approach, including pre and post harvest assessment and growth and other model refinement. The approach will be discussed with DUAP and NPWS.
Ongoing		Eden	3.5	SFNSW, NPWS and DUAP will consult on appropriate spatial scales for reporting actual yields against FRAMES estimates.	In progress Preliminary discussions held to enable reporting actual versus predicted volumes in the 1999/2000 Annual Report. Further discussions between SFNSW, NPWS and DUAP to be undertaken.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
Ongoing	Subject to funding	UNE, LNE, Eden	3.6	Extension of FISAP to fund various initiatives in the UNE, LNE and Eden regions.	In progress UNE/LNE regions – FISAP funding of \$7.5 million to assist SFNSW in the purchase of private property for the purpose of supplementing Crown resources. Under the Log Haulage Assistance program \$1 million per annum over a period five years has been allocated to assist sawmilling companies meet additional log haulage costs under guidelines approved by the Minister for Urban Affairs & Planning. Eden Region – Eden Recovery Mill has been established and will be fully operational by late 2000. The mill will create 44 jobs in Eden.
Ongoing	Subject to funding	UNE, LNE, Eden	3.6 Att 10	Employ a range of initiatives to facilitate employment, subject to funding.	In progress Funded initiatives are being undertaken.
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 Ventures being considered by agencies.
Ongoing		UNE, LNE, Eden	5.1.1	Where further analysis indicates the feasibility of other ventures, project plan must be developed for implementation.	No reporting required No ventures have been identified, therefore no project plans have been developed.
Ongoing		UNE, LNE, Eden	5.1.1	SFNSW and NPWS must progressively negotiate joint management arrangements and joint ventures with local Aboriginal communities.	In progress Arrangements being progressed in the Eden Region between Aboriginal communities, SFNSW and NPWS (refer milestone 5.1.3, 1 April 2000). In the UNE/LNE regions, NPWS are progressing various joint management initiatives in Warrell Creek, Arakwal and Stockton Bight. SFNSW and NPWS are pursuing the formalisation of a joint strategy to provide for Aboriginal involvement in forest management.
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 NPW Act.	In progress Guidelines being developed for the assessment of all parks to determine their inclusion in Schedule 14 of the NPW Act.
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.	In progress Employment opportunities provided.
Ongoing		UNE, LNE, Eden	6.16.2 6.16.1 (E)	DUAP, SFNSW and NPWS to prepare a joint strategy for vacant Crown lands with potential mineral resource interests to determine if any of this land is suitable for Crown reserve.	In progress Discussions are continuing between DUAP, SFNSW and NPWS.
Ongoing		UNE, LNE	6.16.2	The Government may attempt to voluntarily acquire leases using approaches co-ordinated with the NPWS purchase strategy. Funding to be sought for the purchase of leasehold lands.	In progress Land acquisition for addition to the NPWS estate within the UNE and LNE regions is continuing subject to funding.
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 Not required until the five-year review.

Due Date		Forest Agreement Region	Ref **	Milestone	Status
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 Not required until the five-year review.
Ongoing	12 months after each 5 yearly 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 review.	No reporting required Not required until 12 months after the five-year review.
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.	In progress Process covered in the SFNSW Operational Circular Guidelines for using FMZ system
Ongoing	as soon as practical	UNE, LNE, Eden	6.16.2 6.16.1 (E)	Any areas for which leases are purchased must be incorporated by gazettal into NPWS estate as soon as practical.	In progress One lease has been purchased in the UNE Region, but is yet to be gazetted.
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.	In progress Negotiations on transitional harvesting arrangements complete and planning framework agreed to. On ground site assessments completed and SFNSW addressed viability of harvesting. Negotiations are ongoing.
Ongoing	Within 6 months of harvest	UNE, LNE	6.16.1	Rehabilitation works on plantation areas within national parks must be completed within 6 months of harvest completion.	No reporting required No rehabilitation works have commenced, as harvesting has not yet taken place.
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.	No reporting required Pending exhibition of wilderness report for the UNE and LNE regions in July 2001.
Ongoing		UNE, LNE, Eden	Att 8	Implement the Forest Management Zoning System.	In progress Public release of the document entitled <i>Managing Our Forests Sustainably: Forest Management Zoning in NSW State Forests</i> which explains and describes FMZs. Proposed FMZ areas to be placed on public display in September 2000 with draft Regional ESFM Plans. Guidelines for using the FMZ to be developed by SFNSW to enable full implementation, and regions have electronic versions to assist with operational planning.
Ongoing		UNE, LNE, Eden	Att 8	Manage cultural values, both Aboriginal and non-Aboriginal, according to guidelines.	In progress Cultural heritage performance indicators for SFNSW have been created and are being reported against. Cultural values managed according to NPWS' existing statewide guidelines, which are currently being reviewed (refer also milestone in section 2.8 (UNE Region and LNE Region forest agreements) and section 2.7 (Eden Region Forest Agreement)).

Due Date	Forest Agreement Region	Ref **	Milestone	Status
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 Joint management agreements are being implemented with some Aboriginal groups and SFNSW, including training to manage their own sites register in some regions.
Ongoing	UNE, LNE, Eden	Att 8	Providing ongoing formal public participation to raise awareness and understanding of ESFM and how it can be achieved in NSW forests.	In progress Opportunities for public participation and education are currently being considered.
Ongoing	UNE, LNE, Eden	Att 8	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.	In progress This milestone is currently being considered.
Ongoing	UNE, LNE, Eden	Att 8	Improving co-operation 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 Implemented and formalised by an inter-agency implementation group. Group consists of representatives from NPWS, SFNSW, NSWFW, EPA and DUAP, who meet every two months.

** NOTE

(E) – denotes milestone reference in the Eden Region forest agreement, where it is different from the UNE and LNE region forest agreements.

Multiple references denote milestone is referred to in another section of the forest agreement.