

**FINAL**

**NORTH EAST NSW RFA**



# **REGIONAL FOREST AGREEMENT**

**for**

**NORTH EAST**

**NEW SOUTH WALES**

**(Upper North East and Lower North East Regions)**

**between**

**THE COMMONWEALTH OF AUSTRALIA**

**&**

**THE STATE OF NEW SOUTH WALES**

**MARCH 2000**



# North East Regional Forest Agreement

**THIS AGREEMENT** is made on the \_\_\_\_\_ day of \_\_\_\_\_ 2000

## BETWEEN

**THE STATE OF NEW SOUTH WALES, (“New South Wales” or “the State”), and**

**THE COMMONWEALTH OF AUSTRALIA** (“the Commonwealth”).

## Recitals

WHEREAS:

## Purpose of Agreement

- A. This Regional Forest Agreement (RFA) establishes the framework for the management of the forests of the Upper North East and Lower North East regions. Parties are committed to ensuring the Agreement is durable and that the obligations and commitments that it contains are delivered to ensure effective conservation, forest management and forest industry outcomes.
- B. This Agreement is a Regional Forest Agreement, for the purposes of the *Export Control Act 1982* (C'wth), Export Control (Hardwood Wood Chips) (1996) Regulations (C'wth), and the Export Control (Regional Forest Agreements) Regulations (C'wth). As such the Agreement :
- (a) identifies areas in the region or regions that the Parties believe are required for the purposes of a Comprehensive, Adequate and Representative Reserve System, and provides for the conservation of those areas; and
  - (b) provides for the ecologically sustainable management and use of forested areas in the regions; and
  - (c) is for the purpose of providing long-term stability of forests and forest industries; and
  - (d) has regard to studies and projects carried out in relation to all of the following matters that are relevant to the regions:
    - (i) environmental values, including Old Growth, Wilderness, endangered species, National Estate Values and World Heritage Values;
    - (ii) Indigenous heritage values;
    - (iii) economic values of forested areas and forest industries;
    - (iv) social values (including community needs); and

(v) principles of Ecologically Sustainable Forest Management.

- C. This Agreement is divided into Parts. Part 1 applies to the whole Agreement. Part 2 is not intended to create legally binding relations. Part 3 is intended to create legally binding relations. The Attachments are not intended to create legally binding relations except to the extent that this is necessary to give effect to Part 3.

**NOW IT IS AGREED** as follows:

## **PART 1**

### **Interpretation**

- 1 This Agreement is to be interpreted, unless the contrary intention appears, with reference to the definitions and general provisions specified in clauses 2 and 3.

### **Definitions and General Provisions**

- 2 In this Agreement unless the contrary intention appears:

**“Agreement”** means all parts of this Agreement between the Commonwealth of Australia and the State of New South Wales and includes the Attachments to this Agreement;

**“Australian Heritage Commission”** or **“the Commission”** means the Commission established by the *Australian Heritage Commission Act 1975* (C’wth);

**“Biodiversity”** means biodiversity as defined in the JANIS Report;

**“Comprehensive Adequate and Representative Reserve System”** or **“CAR Reserve System”** means areas under any of the following categories of land tenure - as described in the JANIS Report - Dedicated Reserves, Informal Reserves and other areas on Public Land protected by prescription (eg under Integrated Forestry Operation Approvals), and areas of Private Land where the CAR Values are protected under secure management arrangement by agreement with private landholders. This reserve system is based on the principles of comprehensiveness, adequacy and representativeness;

**“CAR Values”** means the conservation values as described by the JANIS Reserve Criteria;

**“Codes of Practice”** or **“Codes”** means the State’s suite of codes identified in this Agreement or described in the *New South Wales CRA/RFA Steering Committee: Assessment of Management Systems and Processes for Achieving Ecologically Sustainable Forest Management in New South Wales: Independent Expert Working Group Report* published by the Commonwealth and New South Wales Governments April 1998. Codes include the:

- Timber Plantations (Environmental Protection) Harvesting Code 1997 (Schedule 1 of Timber Plantations (Harvest Guarantee) Regulation 1997 (NSW)) and the equivalent Code under the *Plantations and Reafforestation Act (1999)* when it commences;
- State Forests of NSW Forests Practices Code : Part 1: Timber Harvesting in State Forests Plantations (July 1995) (Under review);
- State Forests of NSW Forests Practices Code : Part 2: Timber Harvesting in Native Forests (November 1995) (Under review);
- State Forests of NSW Forests Practices Code : Part 3: Plantation Establishment and Maintenance (Draft of August 1996) (Under review);
- State Forests of NSW Forest Practices Code : Part 4: Forest Roads and Fire Trails (February 1999);
- State Forests of NSW Forest Practices Code : Part 5: Wildlife Management in Native Forests (due for completion by April 2000);
- Integrated Forestry Operations Approvals for the Upper North East and Lower North East regions; and
- Additional or new Codes identified in the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*;

**“Competition Principles Agreement”** means the agreement of the same name described in the Compendium of National Competition Policy Agreements, January 1997, National Competition Council;

**“Comprehensive Regional Assessment”** or **“CRA”** means the assessment process carried out pursuant to Attachment 1 of the Scoping Agreement for New South Wales Regional Forest Agreements between the Commonwealth of Australia and the State of New South Wales;

**“Crown Land”** means land that is vested in the Crown or was acquired under the Closer Settlements Acts as in force before their repeal, not in either case being:

- (a) land dedicated for a public purpose; or
- (b) land that has been sold or lawfully contracted to be sold and in respect of which the purchase price or other consideration for the sale has been received by the Crown.

**“Crown Reserve”** means land dedicated or reserved as a reserve under the *Crown Lands Act 1989* (NSW) and managed by the NSW National Parks and Wildlife Service;

**“Data”** means all Source Data, Derived Data, Assessment Data, and models listed in the Schedules as defined in Attachment 13 to this Agreement;

**“Dedicated Reserve”** means a reserve equivalent to International Union for the Conservation of Nature and Natural Resources (IUCN) Protected Area Management Categories I, II, III, or IV as defined by the IUCN Commission for National Parks and Protected Areas (1994). The status of Dedicated Reserves is secure, requiring action by the New South Wales Parliament or in accordance with New South Wales legislation for reservation or revocation. In New South Wales, Dedicated Reserves include, but are not limited to, parks under the *National Parks and Wildlife Act 1974* (NSW) and flora reserves under the *Forestry Act 1916* (NSW) (Special Protection Zones under the Forest Management Zoning system);

**“Deferred Forest Agreement”** means the Deferred Forest Agreement between the Commonwealth and the State of New South Wales signed on 25th January 1996 as subsequently amended;

**“Eco-Field Guide”** means *An Overview of Forest Management in North East New South Wales, SFNSW, (in prep)*, *A Field Guide to Forest Management in North East New South Wales, SFNSW, (in prep)* and *the Native Forest Silviculture Manual, SFNSW, (in Prep)*;

**“Ecologically Sustainable Forest Management”** or **“ESFM”** means forest management and use in accordance with the specific objectives and policies for ecologically sustainable development as detailed in the *National Forest Policy Statement*. Principles are elaborated in Attachment 14.;

**“Environment and Heritage Values”** means those values assessed pursuant to Attachment 1 of the RFA Scoping Agreement;

**“Extractive Material”** means sand, gravel, clay, soil, turf, rock, stone or similar substances, not being a Mineral, as defined in this Agreement;

**“Extractive Operation”** means the winning of Extractive Material, or, an industry or undertaking (not including Mining), which depends for its operations on the winning of Extractive Material from the land upon which it is carried on;

**“Forest”** means: a Forest Ecosystem listed in Table 1 of Attachments 1(A) and 1(B); the land on which a Forest Ecosystem listed in Table 1 of Attachments 1(A) and 1(B) occurs; and, a plantation of trees. The carrying out of a forestry operation on an area does not prevent it from remaining as a Forest.

**“Forest Agreement”** means a Forest Agreement as defined in the *Forestry and National Park Estate Act 1998* (NSW);

**“Forest Ecosystem”** means for the purposes of the Agreement a forest ecosystem as defined in the JANIS Report. Forest Ecosystems as they exist at



the present time are described in Attachments 1(A) and 1(B) of this Agreement;

**“Forest Management System”** means the New South Wales Forest Management System as described in the report entitled *Assessment of Management Systems and Processes for Achieving Ecologically Sustainable Forest Management in New South Wales*<sup>1</sup>: Independent Expert Working Group Report published by the Commonwealth and New South Wales Governments April 1998 and as modified by the *Forestry and National Park Estate Act 1998* (NSW). Major elements of the system include Forest Agreements, Integrated Forestry Operations Approvals, Codes of Practice, Eco-Field Guides and Regional ESFM Plans;

**“Forest Management Zoning” or “FMZ”** is a land classification system which identifies management intent across State forest. The system is described in the document *Forest Management Zoning in State Forests*, SFNSW 1999;

**“Forestry Operations”** means:

- (a) logging operations, namely, the cutting and removal of timber from land for the purpose of timber production;
- (b) forest products operations, namely, the harvesting of Forest Products that are of economic value;
- (c) on-going forest management operations, namely, activities relating to the management of land for timber production such as thinning, bush fire hazard reduction and other silvicultural activities; and
- (d) transport of Forest Products;

**“Forest Products”** means timber and products as defined in the *Forestry Act 1916* (NSW);

**“Forest Resource and Management Evaluation System” or “FRAMES”** means State Forests of New South Wales’ statewide forest resource inventory, growth modelling, simulation and harvest scheduling system for New South Wales’ public native forest resource. This system is documented in the project reports *Strategic Inventory*, *Biometric Models*, *Yield Simulator*, *Strategic Yield Scheduler* and *Application of Protective Measures and Forest Practices into a Quantitative Database for UNE and LNE Regions*;

**“Harvesting Exclusions Zone” (Zone 3A)** means the zone of the same name in the document *Forest Management Zoning in State Forests*, SFNSW 1999;

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<sup>1</sup> Reference to this report in this Agreement does not imply or convey any agreement with or agreement to any commentary or recommendation but is restricted to description of the forest management system described within that report.

**"High Quality Large Sawlogs"** means High Quality Sawlogs having a centre diameter under bark of at least 40cm;

**"High Quality Sawlogs"** means sawlogs of 2.4 metres or more in length, which meet the SFNSW specifications for high quality;

**"High Quality Small Sawlogs"** means High Quality Sawlogs having a centre diameter under bark of less than 40cm;

**"Informal Reserve"** means a reserve that contains and is managed for Environment and Heritage Values which contribute to the CAR Reserve System and meets the principles for Informal Reserves as described in the JANIS Report. In New South Wales, it includes, but is not limited to, parts of the Special Management Zone under the NSW Forest Management Zoning system;

**"Integrated Forestry Operations Approval" or "IFOA"** means an *Integrated Forestry Operations Approval* or *Integrated Forestry Operations Approvals* as defined in the *Forestry and National Park Estate Act 1998* (NSW);

**"ISO 14000 Series"** means AS/NZS ISO 14000 series, Environmental Management Systems, Standards Australia, 1996;

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

**"JANIS Reserve Criteria" or "Criteria"** means the criteria as described in the JANIS Report for establishing the CAR Reserve System addressing Biodiversity, Old Growth forest and Wilderness, taking account of reserve design and management and social and economic considerations;

**"Large Veneer Logs"** means veneer logs having a centre diameter under bark of at least 40 cm;

**"Long-term Timber Supply Strategy"** means the strategy described in Attachment 12 to this Agreement.

**"Mineral"** means any substance prescribed by the regulations of the *Mining Act 1992* (NSW) as a mineral, and petroleum as prescribed under the *Petroleum (Onshore) Act 1991* (NSW), and includes coal, oil shale and petroleum but does not include uranium;

**"Mining"** means any operation or work carried out to obtain Minerals;

**“Mining Operations”** means operations carried out in the course of Mining, or operations authorised by an exploration licence or an assessment lease under the *Mining Act 1992* (NSW) or the *Petroleum (Onshore) Act 1991* (NSW);

**“Montreal Process Criteria”** means the Montreal Process criteria for the conservation and sustainable management of temperate and boreal forests;

**“Montreal Process Implementation Group”** or **“MIG”** means the Montreal Process Implementation Group established by the Commonwealth and all State and Territory Governments;

**“National Estate”** means those places as defined under section 4 of the *Australian Heritage Commission Act 1975* (C’wth);

**“National Estate Values”** means values attributed by the Australian Heritage Commission to the National Estate;

**“National Forest Policy Statement”** or **“NFPS”** means the *National Forest Policy Statement* (1992) endorsed by the Commonwealth and all State and Territory Governments;

**“NPWS Environmental Management System”** means the system of the same name described in the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*;

**“NSW National Parks and Wildlife Service”** or **“NPWS”** means the New South Wales National Parks and Wildlife Service;

**“Old Growth forest”** means old growth forest as defined in the JANIS Report;

**“Parties”** means the State of New South Wales and the Commonwealth of Australia;

**“Party”** means a Party to this Agreement;

**“Plantations”** means intensively managed stands of trees of either native or exotic species, created by the regular placement of seedlings or seed;

**“Private Land”** means lands other than Public Land and land owned or leased by the Commonwealth;

**“Public Land”** means lands of the New South Wales Crown;

**“Pulpwood”** means logs cut and prepared primarily for the manufacture of wood pulp;

**“Recovery Plan”** includes a recovery plan made under Part 3 of the *Endangered Species Protection Act 1992* (C’wth) and/or relevant parts of the *Threatened Species Conservation Act 1995* (NSW);

**“Regional ESFM Plan”** means a plan covering State forests in the region that has the status of a management plan under the Forestry Regulation 1999 (NSW) under the *Forestry Act 1916* (NSW);

**“Regional Forest Agreement”** or **“RFA”** means a Regional Forest Agreement within the meaning of the Export Control (Hardwood Wood Chips) (1996) Regulations (C’wth);

**“Regional Prescriptions”** include silvicultural prescriptions and systems, and protection measures covered by the Codes of Practice, Eco-Field Guides and Integrated Forestry Operations Approvals applying to the Upper North East and Lower North East regions;

**“Register of the National Estate”** means the register of the same name kept pursuant to the *Australian Heritage Commission Act 1975* (C’wth);

**“Scoping Agreement”** means the Scoping Agreement for New South Wales Regional Forest Agreements between the Commonwealth and the State of New South Wales signed on 25th January 1996;

**“SFNSW Native Forest Management System”** means the system of the same name described in the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*;

**“Special Management Zone”** (Zone 2), means the zone of the same name as described in S21A of the *Forestry Act 1916* (NSW) and described in the document *Forest Management Zoning in State Forests*, SFNSW 1999;

**“Special Prescription Zone”** (Zone 3B) means the zone of the same name in the document *Forest Management Zoning in State Forests*, SFNSW 1999;

**“Special Protection Zone”** (Zone 1), means the zone of the same name described in the document *Forest Management Zoning in State Forests*, SFNSW 1999;

**“State forest”** means land dedicated as State forest under the *Forestry Act 1916* (NSW);

**“State Forests of NSW”** or **“SFNSW”** means the Forestry Commission of New South Wales, constituted as a corporation under the *Forestry Act 1916* (NSW) operating as State Forests of New South Wales;

**“Statement of Significance”** means a statement of significance made by the Australian Heritage Commission for a place which forms part of the National Estate;

**“Sustainability Indicators”** means qualitative or quantitative measures, at the regional (sub-national) level developed to assess the criteria for sustainable forest management;

**“Sustainable Yield”** means the long term estimated wood yield from forests that can be maintained from a given region in perpetuity under a given management strategy and suite of sustainable use objectives;

**“Sustainable Wood Supply Strategy”** means the intent to manage yields of High Quality Large Sawlogs and Large Veneer Logs from the forest at a specific and constant level for twenty years under a given management strategy and suite of sustainable use objectives. It recognises that a transition to long term Sustainable Yield will be phased in to accommodate social and economic considerations;

**“Threat Abatement Plan”** means a threat abatement plan made under Part 3 of the *Endangered Species Protection Act 1992* (C’wth);

**“Wilderness”** means wilderness as defined in the JANIS Report;

**“Wilderness Values”** means the values of the same name as defined in the JANIS Report and the Scoping Agreement between NSW and the Commonwealth;

**“Wild Rivers”** means a water course, water course network, or a connected network of water bodies, of natural origin and exhibiting natural flow (perennial, intermittent or episodic) in which the biological, hydrological and geomorphological processes associated with the river flow; and the biological, hydrological and geomorphological processes in those parts of the catchment with which the river is intimately linked; have not been significantly altered by modern or colonial society;

**“Woodchips and Unprocessed Wood”** means those goods within the meaning of the Export Control (Hardwood Wood Chips) (1996) Regulations (C’wth); the Export Control (Regional Forest Agreements) Regulations (C’wth); and the Export Control (Unprocessed Wood) Regulations (C’wth);

**“Wood Supply Agreement”** means an agreement in writing between State Forests of NSW and a person or company or organisation under which State Forests of NSW agrees to supply and the person or company or organisation agrees to take native hardwoods. It includes agreements commonly referred to as term agreements and wood supply agreements, of more than twelve months duration;

**“World Heritage Nomination”** means the submission by the Commonwealth of a nominated area to the UNESCO World Heritage Committee for assessment as a World Heritage area;

**“World Heritage Values”** means features, formations, areas, and sites of outstanding universal value within the meaning of Article 2 of the *Convention Concerning the Protection of the World Cultural and Natural Heritage*, also known as the World Heritage Convention.

- 3 In this Agreement unless the contrary intention appears:
- (a) A reference to a clause or Attachment is a reference to a clause or Attachment to this Agreement and a reference to this Agreement includes a reference to an Attachment;
  - (b) A reference to this Agreement or another instrument is a reference to this Agreement or that other instrument as amended or varied from time to time;
  - (c) A reference to a statute or ordinance includes any consolidations, amendments, re-enactments or replacements thereof and also includes regulations and other instruments made under them;
  - (d) A reference to a code or other instrument includes any consolidations or amendments thereof;
  - (e) A word importing the singular includes the plural and vice versa, a word importing a gender includes each other gender and a reference to a person includes an individual, firm, body corporate, association (whether incorporated or not), government, governmental or semi-governmental body, local authority or agency;
  - (f) A reference to an act, matter or thing includes the whole or any part of that act, matter or thing and a reference to a group of acts, matters, things or persons includes each act, matter, thing or person in that group;
  - (g) Where any terms and conditions are added to an Attachment of this Agreement it is agreed that those terms and conditions will form part of this Agreement;
  - (h) Headings are inserted for convenience and do not affect the interpretation of this Agreement.

### **Definition of the Regions**

- 4 The area covered by this Agreement includes two regions: the Upper North East Region (Map 1(A)) and the Lower North East Region (Map 1(B)).

### **Duration of Agreement**

- 5 This Agreement takes effect upon signing by both Parties and, unless earlier terminated in accordance with clauses 112, 113, 114 or 115, will remain in force for 20 years.
- 6 The process for extending the Agreement for a further period will be determined jointly by the Parties as part of the third five-yearly review.

## **Basis of Agreement – National Forest Policy Statement**

- 7 The Parties confirm their commitment to the goals, objectives and implementation of the *National Forest Policy Statement (NFPS)* by:
- (a) Developing and implementing Ecologically Sustainable Forest Management (ESFM);
  - (b) Establishing a Comprehensive, Adequate and Representative (CAR) Reserve System;
  - (c) Facilitating the development of an internationally competitive wood production and wood products industry; and
  - (d) Promoting the conservation and management of the private forest estate.

## **Changes to the Agreement**

- 8 This Agreement may only be amended with the consent, in writing, of both Parties. Parties agree to work cooperatively to address any differences between them as to the interpretation or implementation of the Agreement.

## **Dispute Resolution**

- 9 The Parties agree that if a dispute arises between the Parties regarding this Agreement it must be resolved expeditiously in accordance with the provisions of clauses 10 to 14.
- 10 When a dispute arises, a Party may serve a notice on the other specifying:
- (a) the nature and substance of the matter or issue in dispute;
  - (b) that it is a dispute to be resolved in accordance with clauses 10 to 14.
- 11 If a notice is served under clause 10 the Parties must attempt to settle the dispute within 14 days. At the expiration of that 14 days and, if agreed, any additional period the Parties must appoint a mediator to conduct a mediation concerning the matter or issue in dispute.
- 12 If the dispute is not settled under clause 11 and the Parties fail to appoint a mediator, either of them may request the President of the Law Council of Australia, or the equivalent officer of such body as in future may have the functions of the Law Council of Australia, to nominate a mediator to conduct the mediation.
- 13 The costs of a mediator appointed under clauses 11 or 12 are to be shared equally between the Parties.
- 14 Each of the Parties agrees to use its best endeavours to resolve the dispute through mediation.

## **Notices**

- 15 Any notice or other communication to be given or made pursuant to this Agreement shall be in writing and addressed as the case may be as follows:

### **THE STATE**

Director-General  
Premier's Department  
Governor Macquarie Tower  
1 Farrer Place  
SYDNEY NSW 2000

### **THE COMMONWEALTH**

The Secretary  
Department of the Prime Minister and Cabinet  
3-5 National Circuit  
BARTON ACT 2600



## PART 2

- 16 This Part is not intended to create legally binding relations and provisions in Part 1 in so far as they relate to Part 2 are also not binding. Where there are references in this Part to obligations which are referred to in Part 3 and are intended to be legally binding, they are only included in Part 2 insofar as they provide context and for the sake of completeness so that the whole scheme which the Parties wish to implement is set out in this Part. The inclusion of references to these legally binding obligations in Part 2 does not derogate from the Parties intent that they be legally binding in Part 3.

### FUNCTIONING OF THE AGREEMENT

#### **Relationship to Previous Inter-Government Forest Agreements**

- 17 (a) In relation to both the Upper North East and Lower North East regions, this Agreement replaces the *Deferred Forest Agreement*, signed by the Commonwealth and New South Wales Governments on 25 January 1996, and as subsequently amended.
- (b) New South Wales, in signing this Agreement, states that the area deferred from timber harvesting by the New South Wales Government Interim Forestry Assessment decision of 23 September 1996 (ie the Interim Deferred Forest Area), no longer applies in relation to the Upper North East and Lower North East regions.

#### **Relationship to Statutory Obligations**

- 18 This Agreement cannot impose on either Party or a third party any obligation that is inconsistent with Australia's international obligations, or a law of the Commonwealth or of New South Wales.
- 19 Neither Party will seek to use existing or future legislation to undermine or impede this Agreement.
- 20 The Commonwealth, in signing the Agreement, confirms that its obligations under the *Australian Heritage Commission Act 1975* (C'wth) have been met.
- 21 Parties will manage their respective responsibilities with regard to the National Estate in accordance with the provisions of this Agreement as detailed in Attachment 4.
- 22 Parties acknowledge that the National Heritage Places Strategy may have implications for the cooperative management of the National Estate and agree to consult on those matters that may impact on the functioning of this Agreement in the development of the Strategy. The Parties note that when implemented, the Strategy may result in either Party seeking to amend those clauses of this Agreement relating to the Register of the National Estate. Any such amendment will be consistent with clauses 18 and 19 of this Agreement.

- 23 The Commonwealth confirms it has on or before the date of this Agreement entered into an agreement with the Australian Heritage Commission in which the Commission has agreed to perform and comply with all the agreements and confirmations which are specified in Attachment 4 as being agreements and confirmations on the part of the Commission.
- 24 The Commonwealth, in signing the Agreement, confirms that its obligations under the *Environment Protection (Impact of Proposals) Act 1974* (C'wth) have been met. The Commonwealth also confirms that, under the administrative procedures of the Act, any activities covered by the Agreement, including the five-yearly reviews and minor amendments to the Agreement, will not trigger further environmental impact assessment.
- 25 The Commonwealth confirms that it has met its obligations in relation to this Agreement under the *Endangered Species Protection Act 1992* (C'wth) in so far as they were to be performed prior to the date of the commencement of this Agreement.
- 26 The Commonwealth notes that its obligations to promote endangered species protection will involve ongoing cooperative work with New South Wales agencies concerning the Upper North East and Lower North East regions.
- 27 Parties agree to actively investigate, and jointly participate in the further World Heritage assessment of the relevant Australia-wide themes specified in Section 3.4.2 (Table 17) of the World Heritage Expert Panel report, including any potential contribution from the Upper North East and Lower North East regions.
- 28 Parties recognise that existing World Heritage properties within the RFA regions, and any new areas nominated for World Heritage listing subject to clause 31 will be subject to the provisions of the *Environment Protection and Biodiversity Conservation Act 1999*.
- 29 The Parties agreed in 1997 to develop a World Heritage Nomination for the Greater Blue Mountains region in reference to the Eucalypt theme. The nomination was submitted in 1998 and is currently undergoing assessment. A section of the Lower North East RFA Region forms part of the nominated area. The Parties have agreed to develop funding and management arrangements for the nominated property.
- 30 The Commonwealth agrees that it will give full consideration to the potential social and economic consequences of any World Heritage Nomination of places in the Upper North East and Lower North East regions and that any such nomination will only occur after the fullest consultation and with the agreement of the State.
- 31 The Parties agree that any World Heritage Nomination involving any part of the forest estate in the Upper North East and Lower North East regions will be from within the CAR Reserve System.

- 32 The Parties agree that before any World Heritage Nomination is made:
- (a) all necessary management arrangements, including joint policy coordination arrangements will be agreed;
  - (b) all related funding issues will be resolved to the satisfaction of both Parties; and
  - (c) The Parties will develop an agreed management plan that is suitable for consideration for bilateral accreditation under section 46 of the *Environment Protection and Biodiversity Conservation Act 1999*.
- 33 The Commonwealth undertakes to use its best endeavours to secure the enactment of legislation which amends *the Environmental Protection and Biodiversity Conservation Act 1999* (Cwlth) by inserting definitions of “forestry operations”, “RFA forestry operations” and “RFA or Regional Forest Agreement” identical to those contained in the *Regional Forest Agreements Bill* (Cwlth) and introduce such legislation into the Parliament of the Commonwealth by 30 June 2000.
- 34 Parties note that current Commonwealth export arrangements provide that, after 31 March 2000, exports of hardwood Woodchips from native forests will only be permitted from areas covered by an RFA.
- 35 Parties note that no controls under the *Export Control Act 1982* (C’wth) will apply to hardwood Woodchips or Unprocessed Wood sourced from the Upper North East and Lower North East regions while this Agreement is in place.
- 36 New South Wales confirms that its *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement* (NSW, 5 March 1999) and any Integrated Forestry Operations Approvals for all or part of the Upper North East and Lower North East regions are parts of the New South Wales Forest Management System and are means by which New South Wales will implement obligations and undertakings arising from this Agreement.
- 37 New South Wales undertakes to notify the Commonwealth within fourteen days of any amendment or termination of a Forest Agreement or amendment, suspension or revocation of any Integrated Forestry Operations Approval which applies to either of the Upper North East and Lower North East regions. Copies of any Forest Agreements or Integrated Forestry Operations Approvals will be provided to the Commonwealth within fourteen days.

#### **Regional Forest Agreement Bill 1998 (C’wlth)**

- 38 If the *Regional Forest Agreements Bill 1998* (C’wlth) is enacted and commences, New South Wales may seek amendment of this Agreement as a result of such enactment or commencement.

## **Milestones**

- 39 This Agreement establishes milestones as given in Attachment 5 and Parties will report annually on their achievement during the first five years, using an appropriate public reporting mechanism.

## **Five yearly review**

- 40 Within each five year period, a review of the performance of the Agreement will be undertaken. The purpose of the five-yearly review is to provide an assessment of progress of the Agreement against the established milestones, and will include:
- (a) The extent to which milestones and obligations have been met, including management of the National Estate;
  - (b) The results of monitoring of Sustainability Indicators; and
  - (c) Invited public comment on the performance of the Agreement.
- 41 While the review process will not open up the Agreement to re-negotiation, both Parties may agree to some minor modifications to incorporate the results of the review as per clause 8.
- 42 The outcomes of the review will be made public. The mechanism for the review will be determined by both Parties before the end of the five-year period and the review will be completed within three months.
- 43 The Commonwealth will table in the Commonwealth Parliament the signed Regional Forest Agreement and, when completed, the annual reports detailing achievement of the milestones for the first four years of the Agreement and the first five-yearly review on performance against milestones and commitments.

## **ECOLOGICALLY SUSTAINABLE FOREST MANAGEMENT (ESFM)**

- 44 The Parties agree that ESFM is an objective which requires a long term commitment to continuous improvement and that the key elements for achieving it are:
- (a) The establishment of a CAR Reserve System (Attachment 1(A) and Attachment 1(B));
  - (b) The development of internationally competitive forest products industries; and
  - (c) Integrated, complementary and strategic forest management systems capable of responding to new information.
- 45 The Parties recognise that many of the existing New South Wales processes and regulations are designed to produce effective outcomes in terms of fauna, flora, soil and water conservation on State forests. These elements provide a sound basis for the further development of systems and processes to achieve ESFM.

- 46 New South Wales confirms its commitment to the achievement of ESFM on Public and Private Land consistent with the principles of Ecologically Sustainable Forest Management at Attachment 14, and to the ongoing review and subsequent implementation of its legislation, policy, plans, Codes and Regional Prescriptions to ensure ESFM objectives can be achieved in a more efficient regulatory environment.
- 47 New South Wales agrees that in providing for ESFM, its Forest Management System will be amended to implement the undertakings of this Agreement, including those specified in Attachments 6, 8 and 12 (Part D).
- 48 New South Wales undertakes to:
- (a) Maintain Forest Agreements covering both the Upper North East and Lower North East regions for the duration of this Agreement;
  - (b) Maintain for the duration of this Agreement an Integrated Forestry Operations Approvals covering the Upper North East and Lower North East regions, consistent with Attachments 1A, 1B, 3, 4, 8 and 12;
  - (c) Complete and publish plans of management for areas dedicated under the *National Parks and Wildlife Act 1974* (NSW) by 1 January 2005;
  - (d) Complete and publish Regional ESFM Plans for State forests under the Forestry Regulation 1999 (NSW) under the *Forestry Act 1916* (NSW) by 30 June 2000;
  - (e) Implement the Forest Management Zoning system for the Upper North East and Lower North East regions by 30 June 2000;
  - (f) Manage cultural values, both Aboriginal and non-Aboriginal, in the Upper North East region, consistent with the guidelines in the *Protective Mechanisms for Cultural Heritage – Generic Version* and the Lower North East region consistent with the guidelines in the *Protective Mechanisms for Cultural Heritage – Lower North East* as outlined in clause 92, Attachment 4 and the principles in Attachment 10. The Commonwealth acknowledges that the Cultural Heritage Guidelines attached to both the *Upper North East Integrated Forestry Operations Approval (December 1999)* and the *Lower North East Integrated Operations Approval (December 1999)* are consistent with the above documents;
  - (g) Implement the review and monitoring processes and develop the strategic and operational requirements of sustainable yield systems and processes using enhanced Forest Resource and Management Evaluation System (FRAMES) as described in Attachment 12 (Part E) to enable the review of sustainable yield by 1 December 2006 as described in Attachment 12 (Part B);

- (h) Develop and implement environmental management systems in accordance with the principles outlined in Attachment 8 within five years.

### **Monitoring, Reporting and Consultative Mechanisms**

- 49 New South Wales will report on the results of monitoring of the Sustainability Indicators which are described in the report '*Criteria, Indicators, Targets and Monitoring Processes of Ecologically Sustainable Forest Management for the Upper North East and Lower North East RFA regions*'. Reporting against the indicators will be consistent with the framework document *A Framework of Regional (Sub-National) Level Criteria and Indicators of Sustainable Forest Management in Australia* (Department of Primary Industries and Energy 1998) developed by the MIG.
- 50 Comprehensive Regional Assessments and the development of this Agreement have provided extensive opportunities for public participation and reporting. Parties recognise that the public reporting activities and on-going opportunities for public participation and consultation associated with existing New South Wales and Commonwealth processes and instruments will continue. A range of these processes and improvements are listed in Attachment 6.
- 51 As required by the *Forestry and National Park Estate Act 1998* (NSW), New South Wales will report annually to Parliament on compliance with any Integrated Forestry Operations Approval for the Upper North East and Lower North East regions and the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*. New South Wales will also furnish a copy of the reports to the Commonwealth within fourteen days of their tabling.

### **Accreditation**

- 52 The Commonwealth accredits as providing for continuing improvement in ESFM New South Wales' Forest Management System (including its legislation, policies, Codes for the Upper North East and Lower North East regions, plans and management practices applying to both Public and Private land), as agreed to be amended in this Agreement, particularly those undertakings in clauses 48(a), (b), (d), (e), (g), (h) and 57. The System includes:
- The New South Wales *Upper North East Region Forest Agreement* and the *Lower North East Region Forest Agreement*;
  - Integrated Forestry Operations Approvals for the Upper North East and Lower North East regions;
  - Regional ESFM Plans for the Upper North East and Lower North East regions;
  - New South Wales processes for forecasting Sustainable Yield from both the Upper North East region and the Lower North East region;

- Codes of Practice and Eco-Field Guide for Public Lands;
- Codes of Practice for Private Lands;
- The *Native Vegetation Conservation Act 1997* (NSW);
- The SFNSW Native Forest Management System; and
- The NPWS Environmental Management System.

### **Sustainability Indicators**

53 Parties agree that the current Forest Management System will be enhanced by implementing mechanisms to monitor and review the sustainability of forest management practices. To ensure this occurs, Parties agree that:

- (a) The Sustainability Indicators referred to in clause 49 are consistent with the Montreal Process Criteria in Attachment 9, and take into account the *Framework of Regional (Sub-National) Level Criteria and Indicators of Sustainable Forest Management in Australia* developed by the MIG;
- (b) Both Parties agree that the indicators referred to in clause 49 are to be trialed and assessed during the first five year period to ensure they are practical, measurable, cost-effective and capable of being implemented at the regional level;
- (c) Reporting on the indicators referred to in clause 49 will be under the headings of the Montreal Process Criteria as in Attachment 9; and
- (d) Both Parties agree to further develop, review, and if necessary revise Sustainability Indicators in time for the first five-yearly review.

### **Private Land**

54 The Parties reaffirm their commitments made in the *National Forest Policy Statement* (1992) to the conservation and management of the private forest estate. The Parties note that New South Wales has provisions under the *Native Vegetation Conservation Act 1997* (NSW) for native vegetation retention controls to regulate the clearance of native forest on Private Land.

55 The Parties agree to encourage private forest owners to ensure that their management operations are consistent with ESFM practices.

56 CAR Values which are priorities for the CAR Reserve System and which occur on Private Land will be dealt with by the principles and mechanisms outlined in Attachments 1(A), 1(B) and 2. Parties agree the values listed at Attachment 2 can be managed consistently with the JANIS Reserve Criteria through a range of mechanisms, with the consent of the land owner, as specified in Attachment 2. Priorities for protection of Forest Ecosystems are given in Tables 1 and 2 of Attachment 2. All conservation mechanisms for the establishment of the Private Land component of the CAR Reserve System will be voluntary.

- 57 New South Wales agrees to produce a Code of Practice for timber harvesting of native forest on Private Lands by the first five-yearly review.
- 58 Parties recognise that a Code of Practice for Plantations on Private Land is to be completed by 31 December 2000.
- 59 New South Wales confirms that the CAR Reserve System has been established through this Agreement, including Attachment 2, and that conservation levels achieved in that reserve system will not subsequently be used as a basis for preventing timber harvesting being carried out on Private Lands. Consistent with clause 18 this is not to be interpreted as preventing voluntary conservation measures to protect CAR Values on Private Land.

### **Threatened Flora and Fauna**

- 60 The Parties agree that the CAR Reserve System, actions under the New South Wales Biodiversity Strategy, *Threatened Species Conservation Act 1995* (NSW) and the *Endangered Species Protection Act 1992* (C'wth) (and, the equivalent parts of the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) when it commences), *Forestry and National Parks Estate Act 1998* (NSW) and the application of a range of management strategies, management plans and the Integrated Forestry Operations Approval will provide for the protection of rare or threatened flora and fauna species and ecological communities.
- 61 Where threatened species, ecological communities and threatening processes restricted to New South Wales are listed under both the *Threatened Species Conservation Act 1995* (NSW) and the *Endangered Species Protection Act 1992* (C'wth), any new or revised Recovery Plans or Threat Abatement Plans will be jointly prepared to meet the requirements of both Acts. Where Recovery Plans or Threat Abatement Plans under the *Threatened Species Conservation Act 1995* (NSW) meet the requirement of the *Endangered Species Protection Act 1992* (C'wth), the Commonwealth will consider adopting them under Section 46 of the *Endangered Species Protection Act 1992* (C'wth).
- 62 The Parties agree that the management prescriptions or actions identified in jointly prepared and agreed Recovery Plans or Threat Abatement Plans will be implemented as a matter of priority, including through the Integrated Forestry Operations Approval on State forest.
- 63 Recovery Plans for items listed under both Acts and extending beyond New South Wales will be prepared jointly with New South Wales and other relevant governments to be considered for adoption under Section 46 of the *Endangered Species Protection Act 1992* (C'wth).
- 64 Parties will continue to consult on the priorities for listing threatened species, ecological communities and threatening processes, and the preparation of Recovery Plans, recognising that priorities can change in the light of new information. Currently agreed priorities and commitments for the next five years are outlined in Attachment 3.



## THE CAR RESERVE SYSTEM

- 65 Parties agree that the primary function of the CAR Reserve System is to ensure the conservation and protection of Environment and Heritage Values.
- 66 Parties agree that the CAR Reserve System as identified on Map 1(A) and Map 1(B) and presented in Attachment 1(A), Attachment 1(B) and Attachment 2, satisfies the JANIS Reserve Criteria. Each element of the CAR Reserve System, with the exception of Commonwealth owned or leased land, will be administered in accordance with New South Wales legislation.
- 67 New South Wales agrees to implement, manage and conserve the Upper North East region CAR Reserve System described in Attachment 1(A) and identified on Map 1(A) and the Lower North East region CAR Reserve System described in Attachment 1(B) and identified on Map 1(B), with the exception of Commonwealth owned or leased land.
- 68 The Commonwealth agrees to manage and conserve those parts of the CAR Reserve system on Commonwealth owned or leased lands consistent with the conditions outlined in Attachment 1(B).
- 69 Parties agree that through the acquisition of Private Land (by voluntary sale), transfer of lands of the Crown, or transfer of land from an existing reserve tenure to one of higher conservation protection status, enhancements to the CAR Reserve System could occur. Both Parties agree that such enhancements to the CAR Reserve System will not impede the management of State forest lands or the meeting of the wood supply commitments in this Agreement (Clauses 79, 80 and 84).
- 70 In the incorporation into the CAR reserve system of lands of the Crown over which a licence or occupation permit is held NSW will:
- confirm the presence of CAR Values needed for reservation;
  - through consultation, take into consideration any existing interests in the land of the licensee or permit holder;
  - ensure where practicable that suitable transition arrangements apply; and
  - ensure that practical and legal access remains available where such access to adjacent private, licenced or leased land currently crosses or falls within land to be added to the CAR reserve system under this agreement.
- 71 Parties agree that changes to the CAR Reserve System will only occur in accordance with this Agreement, will be made publicly available, and will not lead to deterioration in the representation or protection of identified CAR Values, except that minor changes to the levels of representation or protection of specific CAR values may occur.

- 72 Parties agree that best endeavours will be used to maintain the levels of protection of National Estate Values in a regional context; however, minor changes to the levels of protection of individual values may occur as a result of changes to the CAR Reserve System in State forest.

## **INDUSTRY AND REGIONAL DEVELOPMENT**

- 73 The Parties agree that State forest outside the CAR Reserve System is available for timber harvesting in accordance with this Agreement and the laws of New South Wales.
- 74 Parties agree that any changes to the total area of State forest or areas excluded from harvesting or Regional Prescriptions applied to State forest will not lead to a net deterioration in the capacity to supply wood from the Upper North East Region and the Lower North East Region, in terms of the volumes as specified in this Agreement and in terms of species and quality.
- 75 (a) The Parties acknowledge that the forest-based industries in the Upper North East and Lower North East regions contribute to both the regional and State economies and are an essential component of many communities in the regions. The Parties intend that this Agreement will enhance opportunities for further growth and development of forest-based industries in the Upper North East and Lower North East regions.
- (b) The Agreement will provide long-term stability for these industries through including long-term certainty of timber supply. This stability will facilitate industry development through:
- (i) New investment, plantation development, reforestation, downstream processing, value-adding and jobs growth in forests-based industries;
  - (ii) Further introduction of new technology, enhanced utilisation of regrowth timber for sawn products, thinning of regrowth forests and more efficient utilisation of residue wood;
- (c) There will be significant economic opportunities in other forest-based industries, such as:
- (i) tourism and recreation; and
  - (ii) mineral exploration and Mining.
- (d) Additional opportunities for enhancement of forest based industries are anticipated arising from the Long-term Timber Supply Strategy (Attachment 12).
- 76 As part of providing greater security of access to forest resources, the Commonwealth will not prevent enterprises obtaining, using or exporting the quantities of timber, Woodchips or Unprocessed Wood products sourced from the Upper North East and Lower North East regions in accordance with this Agreement.

- 77 The Parties note that the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement* establish the sustainability strategy for timber supplies.
- 78 NSW Agrees to implement the Long-term Timber Supply Strategy and Sustainable Yield Systems and Processes as outlined in Attachment 12 of this Agreement.
- 79 Under the Sustainable Wood Supply Strategy, NSW agrees to supply 129,000m<sup>3</sup> per annum for 20 years in the Upper North East Region and 140,000 m<sup>3</sup> per annum in the Lower North East Region of High Quality Large Sawlogs and Large Veneer Logs. Annually, approximately 20,000 m<sup>3</sup> of High Quality Large Sawlogs and Large Veneer Logs allocated in the Upper North East Region will be sourced from the Lower North East Region over the period of the Agreement.
- 80 Harvesting of 109,000m<sup>3</sup> per annum from the Upper North East Region and 160,000 m<sup>3</sup> per annum from the Lower North East Region of High Quality Large Sawlogs and Large Veneer Logs will occur to supply Wood Supply Agreement holders. Contracted commitments and other arrangements associated with Wood Supply Agreements allow for the carrying forward of volumes under-cut or over-cut in any one year.
- 81 The volumes in clause 79 are subject to a FRAMES and wood supply review to be completed by 1 December 2006. The review will be an input to the determination of the annual volume of High Quality Large Sawlogs and Large Veneer Logs to be made available to industry for the balance of the term of this Agreement. Reviews will be conducted using enhanced FRAMES developed through Part E of Attachment 12 and be based on the Sustainable Wood Supply Strategy, the area available for harvesting in the *Upper North East Region Forest Agreement* (1999) and *Lower North East Region Forest Agreement* (1999) as defined through net harvestable area exclusions and the Integrated Forest Operations Approval (1999). The reviews will also consider the contribution to the Sustainable Wood Supply Strategy of any additions to the area available for harvesting resulting from the purchase of Private Land and development of new public hardwood Plantations (Part C, Attachment 12).
- 82 Informed by the review in clause 81, NSW will consider additional supplementation of High Quality Large Sawlogs and Large Veneer Logs having regard to the long-term Sustainable Yield after 2018.
- 83 Any changes in the contracted volumes specified in clause 79 resulting from the review process outlined in clause 81 will be incorporated into this Agreement through Clause 8 and will be advised to holders of Wood Supply Agreements prior to 1 December 2006. These volumes will then be available to industry until the end of 2018.
- 84 In addition to the timber in clause 79, NSW agrees to supply 2,846 m<sup>3</sup> to mills in the Upper North East Region and 5,911m<sup>3</sup> to mills in the Lower North East Region of High Quality Large Sawlogs under transitional arrangements in 2000.

- 85 High Quality Small Sawlogs will be supplied at levels greater than 1999 contracted volumes. In addition NSW will use their best endeavours to provide a greater proportion of the High Quality Small Sawlogs resource through Wood Supply Agreements to enhance security for processors.
- 86 Arrangements for pulp grade timber include an amount of approximately 30,000 tonnes per annum in the Upper North East Region and approximately 152,000 tonnes per annum in the Lower North East Region, being a quantity which reflects supply levels current at the date of this Agreement. In addition, existing supply arrangements for other Forest Products (including poles, piles, girders, High Quality Small Sawlogs, low quality timber and small veneer logs) from forest operations will be honoured.
- 87 The quantities referred to in clause 86 simply reflect supply arrangements existing at the date of this Agreement. Other quantities of Forest Products will be supplied as a result of the management and harvesting of forests to meet the volumes specified in the Wood Supply Agreements for High Quality Large Sawlogs and Large Veneer Logs (refer to clause 79). This will not result in a net increase in the High Quality Large Sawlog or Large Veneer Log volumes specified in clause 79.
- 88 Wherever possible New South Wales will enhance silvicultural programs and reforestation works to improve the productive capacity of State forests.
- 89 Both Parties are committed to the development and implementation of hardwood timber industry development initiatives through the Forest Industries Structural Adjustment Program.
- 90 Both Parties agree that this Agreement will promote the following objectives:
- (a) maximising opportunities for employment in the timber and forest industry and for any workers displaced as a result of the implementation of the CAR Reserve System; and
  - (b) development of an environmental management system, and MIG criteria and indicator monitoring program to a standard which would allow certification of the system under the ISO14000 series.
- 91 Additional initiatives to promote industry and regional development across the Upper North East Region and the Lower North East Region are outlined in Attachment 11.

## **INDIGENOUS HERITAGE**

- 92 New South Wales agrees to develop guidelines and a package of measures that will be implemented to ensure the appropriate management of Aboriginal heritage including the maintenance of traditional historic uses and values, and to facilitate ongoing Aboriginal involvement in the management of the Upper North East and Lower North East regions. The principles to be applied in the Upper North East are those in the *Protective Mechanisms for Cultural Heritage – Generic Version*

and for the Lower North East region those in the *Protective Mechanisms for Cultural Heritage – Lower North East* in addition to the principles at Attachment 4 and Attachment 10.

- 93 This Agreement is not intended to influence either current or future Native Title claims in any way. The Parties acknowledge that if any implementation of this Agreement affects any native title rights and interests such implementation must be in accordance with the *Native Title Act 1993* (C'wth).

## **PLANTATIONS**

- 94 The Parties recognise that export controls have been removed from Unprocessed Wood and Woodchips sourced from New South Wales Plantations in accordance with the Export Control (Unprocessed Wood) Regulations (C'wth).

## **OTHER FOREST USES**

- 95 Parties agree that forest uses other than timber production will be determined in accordance with New South Wales legislation with due regard for protection of Environment and Heritage Values. In some limited circumstances that do not relate to the substance of this Agreement (for example foreign investment approval, export controls for non-forest products and major infrastructure developments) Commonwealth legislative provisions may also apply.
- 96 Parties recognise that under the *National Parks and Wildlife Act 1974* (NSW), issuing of new Mineral Exploration and Mining titles is not permitted (except by Act of Parliament) in national parks or historic sites, nature reserves, state game reserves, karst conservation reserves, aboriginal areas and regional parks.
- 97 The Parties agree that Mining Operations are permitted within parts of the CAR Reserve System which are State forest or Crown Reserves in Attachments 1(A) and 1(B). In Informal Reserves, or in those parts of the CAR Reserve System described as 'Values Protected by Prescription' in Attachments 1(A) and 1(B), NSW agrees that CAR values, as identified in Attachments 1(A) and 1(B), that are compatible with those Mining Operations will be maintained while, CAR values, as identified in Attachments 1(A) and 1 (B), not compatible with those Mining Operations will, where practicable, be provided for elsewhere.
- 98 New South Wales will ensure that any proposed Mining Operations will be subject to environmental impact assessment (including species impact statements where required) under the provisions of the *Environment Planning and Assessment Act 1979* (NSW). Mining Operations will be subject to the *Mining Act 1992* (NSW), and the *Petroleum (Onshore) Act 1991* (NSW). Mining will be in accordance with an approved Mining Operations Plan and Annual Environmental Management Reports. Rehabilitation of any sites disturbed by Mining Operations will be carried out in accordance with the provisions of the relevant statutes (including the *Environmental Planning and Assessment Act 1979* (NSW) and the *Mining Act 1992* (NSW)) and it will aim to achieve world's best practice.

## COMPETITION PRINCIPLES

- 99 Parties recognise that under the Competition Principles Agreement, Governments aim to achieve more transparency and greater efficiency in Government owned business enterprises. The Commonwealth agrees that the day to day pricing and allocation arrangements for wood from public forests are matters for New South Wales. New South Wales confirms its commitment to the pricing and allocation principles set out in the *National Forest Policy Statement*. New South Wales confirms that legislation and policies relevant to the allocation and pricing of hardwood logs from State forests will be reviewed as part of the Competition Principles Agreement.

## RESEARCH

- 100 The results of the Comprehensive Regional Assessments of the forest values of the Upper North East and Lower North East regions indicated a number of areas requiring further research. New South Wales will establish a Research Liaison Committee to identify research priorities relating to forest management and publish a list of priorities by August 2000. Parties have outlined themes for further research in Attachment 7.
- 101 In developing priorities, the Research Liaison Committee will take account of priorities arising out of the Comprehensive Regional Assessment process for the Upper North East and Lower North East regions, particularly those outlined in the reports titled *Criteria, indicators, targets and monitoring processes of Ecologically Sustainable Forest Management for the Upper North East and Lower North East RFA Regions* and *Knowledge and Information Gaps for the Upper North East and Lower North East and Southern CRA/RFA regions*.
- 102 New South Wales will prepare by the first five-yearly review, a Compendium of New South Wales Forest Research that will provide a bibliography of research in progress as well as published and unpublished works.
- 103 Parties agree to consult each other in the development of joint research projects that may affect the Agreement and note that the subject areas and priorities may change throughout the duration of the Agreement.
- 104 Parties agree to make publicly available, wherever possible, research reports relevant to this Agreement.

## DATA

- 105 Parties agree to lodge archival copies of Data within six months of signing this Agreement.
- 106 Parties agree to manage and provide access to Data, including models used to develop this Agreement, in accordance with the Data Agreement at Attachment 13 of this Agreement.

## PART 3

### Nature of Obligations under this Part

107 It is the intention of the Parties that this Part is to create legally enforceable rights and obligations. It is also their intention that, in the event that any provision of this Part exceeds the power of either Party or is unenforceable for any other reason, that provision is to be read as not intending to create legally enforceable rights and obligations.

### Forest Management

108 New South Wales will :

108.1 In accordance with clause 99, under the Competition Principles Agreement review legislation and policies relevant to the allocation and pricing of hardwood logs from State forest;

108.2 In accordance with clause 51, and as required by the *Forestry and National Parks Estate Act 1998* (NSW) report annually to Parliament on compliance with any Integrated Forestry Operations Approval for the Upper North East and Lower North East regions and the New South Wales *Upper North East Forest Region Agreement* and *Lower North East Region Forest Agreement*;

108.3 In accordance with clauses 37 and 51 furnish to the Commonwealth within 14 days:

- (a) a copy of annual reports of compliance with the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement* and Integrated Forestry Operations Approval for the Upper North East and Lower North East regions, required by section 21 of the *Forestry and National Parks Estate Act 1998* (NSW);
- (b) a copy of any Forest Agreement and Integrated Forestry Operations Approvals for the Upper North East and Lower North East regions, and any amendments to those documents; and
- (c) notification of termination, suspension or revocation of any Forest Agreement or Integrated Forestry Operations Approval;

108.4 In accordance with clause 48(a), maintain a Forest Agreement covering the Upper North East and Lower North East regions for the duration of this Agreement;

108.5 In accordance with clause 48(b), maintain an Integrated Forestry Operations Approval covering the Upper North East and Lower North East regions for the duration of this Agreement;

- 108.6 In accordance with clause 48(d), complete and publish Regional ESFM Plans for State forests under the *Forestry Regulation 1999* (NSW) under the *Forestry Act 1916* (NSW) by 30 June 2000;
- 108.7 In accordance with clause 48(g) implement the review and monitoring processes and develop the strategic and operational requirements of sustainable yield systems and processes using enhanced Forest Resource and Management Evaluation System (FRAMES) as described in Attachment 12 (Part E) to enable the review of Sustainable Yield by 1 December 2006 as described in Attachment 12 (Part B);
- 108.8 In accordance with clause 48(h), develop and implement environmental management systems in accordance with the principles outlined in Attachment 8 within five years.
- 108.9 In accordance with clause 57, produce a code of practice for timber harvesting of native forest on Private Lands by the first five-yearly review;
- 108.10 In accordance with clause 78 implement the Long-term Timber Supply Strategy for the regions as at Attachment 12 of this Agreement; and
- 108.11 In accordance with clauses 79 – 84 maintain contracted supply for High Quality Large Sawlogs and Large Veneer Logs.
- 109 The Commonwealth will:
- 109.1 Not prevent enterprises obtaining, using or exporting the quantities of timber, Woodchips or Unprocessed Wood products sourced from the Upper North East and Lower North East regions in accordance with this Agreement;
- 109.2 Maintain accreditation of New South Wales' Forest Management System for the Upper North East and Lower North East regions as agreed to be amended in this Agreement as set out in clause 52 providing any changes to the system are consistent with the provisions of this Agreement.

## **Compensation**

110 The Parties agree that:

- 110.1 If to protect the Environment and Heritage Values in native forests and in connection therewith the protection of:
- (a) CAR Values; or
  - (b) National Estate Values; or
  - (c) World Heritage Values; or
  - (d) Wild Rivers



the Commonwealth takes any Action during the period of this Agreement which is inconsistent with any provision of this Agreement and a foreseeable and probable consequence of which is to prevent or substantially limit:

- (e) the use of land which is not included within the CAR Reserve System for Forestry Operations which, immediately before the announcement of the proposed Commonwealth Action, are being undertaken or were intended to be undertaken at any time or the use of land which is not included within the CAR Reserve System or of land within that system but not within a Dedicated Reserve in which mineral exploration and mining is prohibited pursuant to a statutory licence, permit or authority permitting those Mining Operations or Extractive Operations which was in force immediately prior to the announcement of the proposed Commonwealth Action; or,
- (f) the sale or commercial use of Forest Products sourced from land which is not included within the CAR Reserve System or the first sale or first commercial use of Mining Products or Extractive Materials sourced from land which is not included within the CAR Reserve System or land within that system but not within a Dedicated Reserve in which mineral exploration and mining is prohibited for a purpose for which, immediately prior to the announcement of the proposed Commonwealth Action, they had been intended to be sold or used commercially at any time; or,
- (g) the construction on land which is not included within the CAR Reserve System of roads being built or intended to be built, immediately before the announcement of the proposed Commonwealth Action, where those roads' primary purpose is for the transportation of Forest Products sourced from land which is not included within the CAR Reserve System,

the Commonwealth will pay compensation to the State in accordance with the remaining provisions of clauses 110.2 to 110.20.

110.2 Subject to:

- (a) clauses 110.3, 110.4, 110.5, 110.6, 110.8, 110.9, 110.10, 110.11 and 110.12 the compensation to be paid by the Commonwealth to the State in accordance with clause 110.1 in relation to the prevention by Commonwealth Action of the use of land for Forestry Operations or prevention by Commonwealth Action of the sale or commercial use of Forest Products is the amount of the reasonable loss or damage sustained by reason of that prevention, calculated as at the time at which the prevention referred to in clause 110.1 occurred, by any person in any of the following classes of person:
  - (i) the Owner of the land or of the Forest Products on the land;
  - (ii) any person who, prior to the announcement of the proposed Commonwealth Action but not in anticipation of that Action, entered into a contract with the Owner of the land or of the Forest Products on

the land or with any person mentioned in sub-paragraph (iii) below for the carrying out of Forestry Operations on the land; and

(iii) any person who, prior to the announcement of the proposed Commonwealth Action but not in anticipation of that Action, entered into a contract with the Owner of the land or of the Forest Products on the land to purchase the Forest Products on the land.

(b) clauses 110.3, 110.4, 110.5, 110.6, 110.7, 110.8, 110.10, 110.11 and 110.12 the compensation to be paid by the Commonwealth to the State in accordance with clause 110.1 in relation to the prevention by Commonwealth Action of the use of land for Mining Operations or Extractive Operations or the first sale or first commercial use of Mining Products or Extractive Materials is the amount of the reasonable loss or damage sustained by reason of that prevention, calculated as at the time at which the prevention referred to in clause 110.1 occurred, by any person carrying on Mining Operations or Extractive Operations on the land pursuant to a statutory licence, permit or authority permitting those operations which was in force immediately prior to the announcement of the proposed Commonwealth Action.

(c) clauses 110.3, 110.6, 110.8, 110.9, 110.11 and 110.12 the compensation to be paid by the Commonwealth to the State in accordance with clause 110.1 in relation to the prevention by Commonwealth Action of construction of a road is the amount of reasonable loss or damage sustained by reason of that prevention, calculated as at the time at which the prevention referred to in clause 110.1 occurred, by any person who, immediately before the announcement of the proposed Commonwealth Action, was contracted to construct that road.

110.3 No amount of compensation is payable in the event of any loss or damage being sustained which would have been so sustained regardless of the Commonwealth Action. No compensation is payable hereunder in respect of any additional areas included pursuant to this Agreement in the CAR Reserve System.

110.4 The State warrants that no claim will be made in respect of areas where Forestry Operations or Mining Operations or Extractive Operations would not have been permitted by this Agreement and that any claims will be certified by it as being or not being in respect of such areas and as having been assessed by the State in this regard.

110.5 The State warrants that no claim will be made in respect of Forest Products or Mining Products or Extractive Materials which would not have been available for sale or commercial use under this Agreement and that any claims will be certified by it as being or not being in respect of such Products and as having been assessed by the State in this regard.

110.6 The State undertakes to supply to the Commonwealth on request information, including as to areas protected by prescription, required by the Commonwealth for the purposes of considering claims under this clause.

110.7 To the extent that clause 110.2(b) relates to loss or damage in respect of an exploration licence or assessment lease, that clause is to be read as providing for compensation to be payable only:

- (a) in respect of the part of the area to which that licence or lease relates that is affected by the Commonwealth Action; and
- (b) up to the loss in market value of that licence or lease resulting from the prevention of the Mining Operations or Extractive Operations.

110.8 Any claim made by the State hereunder is to be notified in writing within six months after the loss or damage is sustained.

110.9 For the purposes of clauses 110.1(e) and (g), the intention to conduct Forestry Operations, or the intention to construct roads is to be established on the basis of contracts, documentation of management history or other records establishing clear intent and in existence immediately prior to the announcement of the proposed Commonwealth Action.

110.10 For the purposes of clause 110.1(f), the purpose for which there was an intention to sell or use commercially is to be established on the basis of contracts, documentation of management history or other records establishing clear intent and in existence immediately prior to the announcement of the proposed Commonwealth Action.

110.11 No compensation is payable under clause 110.2 in relation to any loss or damage which the person who sustained the loss or damage might have avoided by taking reasonable steps in mitigation including by the making of alternative contractual arrangements which would have avoided or reduced that loss or damage.

110.12 Clause 110.2 does not apply so as to entitle the State to recover compensation more than once in respect of the same loss or damage.

110.13 The initial procedure in relation to a claim for compensation under this clause is as follows:

- (a) a person who claims to have sustained loss or damage for which compensation is payable may lodge an initiating claim with the State;
- (b) on receiving a claim, the State must make a corresponding claim for compensation to the Commonwealth;
- (c) the State is to make the claim for compensation by a notice in writing to the Commonwealth which indicates the amount claimed, for whom the claim is made, the area to which it relates and gives detailed particulars of the basis for the claim, and of the manner in which it has been calculated;

- (d) where there is a dispute concerning a claim for compensation, or on or before the expiry of 30 days after the receipt of the claim, the Commonwealth notifies the State that it does not accept the amount claimed, then either Party may serve a notice of dispute under clause 10;
- (e) in the event that the amount of compensation payable in response to a claim has not been agreed in the dispute resolution process for which clauses 10 to 14 provide, or the Commonwealth fails to pay the agreed amount of compensation to the State within 60 days of agreement (for reasons other than lack of the necessary appropriation), the Parties hereby refer the claim to arbitration;
- (f) an arbitration under this Agreement is to be conducted in accordance with the provisions of the *Commercial Arbitration Act 1984* (NSW) which are, to the extent permitted by the *Judiciary Act 1903* (C'wlth) and the Commonwealth constitution, incorporated by reference into this Agreement.

110.14 The procedure in relation to any arbitration required by reason of the provisions of clause 110.13 is as follows:

- (a) The Parties must meet to appoint an arbitrator within seven days of an unsuccessful mediation.
- (b) If the Parties are unable to agree on the appointment of an arbitrator, either of them may refer the matter to the President of the Law Council of Australia, or equivalent officer of such body as in future may have the functions of the Law Council of Australia, with a request that that person appoint an arbitrator.
- (c) At an arbitration under this clause:
  - (i) the Parties are entitled to representation by a legal practitioner qualified to practice in any State or Territory of Australia;
  - (ii) the arbitrator may order the Parties to discover any relevant documents prior to the hearing;
  - (iii) the arbitrator may order the Parties to exchange proofs of evidence of witnesses (whether expert or not) prior to the hearing;
  - (iv) the arbitrator may, in accordance with the *Commercial Arbitration Act 1984* (NSW), inform himself or herself, in relation to any matter in such manner as the arbitrator thinks fit; provided that if the arbitrator takes advice from any person who is not a Party to this Agreement as to the matters in issue, the arbitrator must provide the Parties with an opportunity to:
    - (1) make submissions on the matter in which the advice is to be taken;

- (2) make submissions on the identity of the person from whom the advice is to be taken;
- (3) make submission on the substance of any advice given before making any decision on the issue on which the advice is taken.

110.15 Unless the Commonwealth appeals the decision of the arbitrator under the *Commercial Arbitration Act 1984* (NSW), and subject to clause 110.18, the Commonwealth undertakes to pay the State the amount of any award made by an arbitrator under clause 110.14 as a debt due to the State, within 60 days of the award.

110.16 Except where the State is the person who sustained the relevant loss or damage, any payment of compensation made by the Commonwealth to the State in accordance with this clause will be paid to and received by the State as trustee for the person who sustained the relevant loss or damage.

110.17 Subject to clause 110.18(b), where the State receives monies as a trustee pursuant to clause 110.16, it will pay those monies to the person who sustained the relevant loss or damage within 30 days.

110.18 (a) Where the Commonwealth has agreed to pay compensation to the State under this clause, or an award of compensation has been made under clause 110.14 as a result of arbitration, and the Commonwealth claims that events have since taken place which have the result that the compensation so agreed or awarded no longer reflects the actual loss or damage that has been or will be sustained, the Commonwealth may by notice in writing to the State, decline to pay that compensation.

(b) If a notice under paragraph (a) is delivered after the State has received the compensation so agreed or awarded, but before the State has paid it to the person who sustained the relevant loss or damage, the State will not pay the compensation to that person.

(c) If a notice under paragraph (a) is delivered, the Parties will attempt to agree the amount of the compensation which the Commonwealth should pay, and -

(i) in default of agreement, will first seek to resolve the dispute by dispute resolution under clauses 10 to 14; and

(ii) in the event that the dispute is not so resolved, or the Commonwealth fails to pay the agreed amount of compensation to the State within 60 days of agreement (for reasons other than lack of the necessary appropriation), hereby refer the claim for compensation to arbitration in accordance with the *Commercial Arbitration Act 1984* (NSW).

(d) Subject to paragraph (e) of this clause, where an arbitration takes place in accordance with sub-paragraph (c)(ii), clauses 110.14 and 110.15 of this

Agreement apply to that arbitration and to any amount awarded in that arbitration.

- (e) If, following the observance of paragraph (c) of this clause, it is determined by agreement or award that the Commonwealth should pay a reduced amount of compensation to the State, the State will within 30 days of that determination -
  - (i) repay to the Commonwealth the amount by which the compensation paid to it by the Commonwealth is reduced; and
  - (ii) pay the balance of the compensation to the person who sustained the relevant loss or damage.
- (f) If, following the observance of paragraph (c) of this clause, it is determined by agreement or award that the amount of compensation previously paid to the State is correct the State will within 30 days of that determination pay to the person who sustained the relevant loss or damage the amount of the compensation previously paid to it by the Commonwealth.

110.19 Where the State:

- (a) has received monies as a trustee pursuant to clause 110.16; and
- (b) has made all reasonable endeavours to pay the monies to the person who sustained the relevant loss or damage; and
- (c) but has been unable to do so within six months of receiving payment

the State shall repay to the Commonwealth at the expiry of that period the monies so received.

110.20 In this clause

- (a) “Action” means
  - (i) the commencement of legislation or subordinate legislation; and
  - (ii) administrative action which is taken pursuant to legislation or subordinate legislation, or otherwise than in accordance with such legislation.
- (b) “Owner” means
  - (i) in relation to land
    - (1) the owner of any estate or interest in that land, including the Crown in right of the State; and

- (2) any statutory corporation which has the power to carry on Forestry Operations or Mining Operations or Extractive Operations, as the case may be, on the land for profit.
- (ii) in relation to Forest Products or Mining Products or Extractive Materials, as the case may be, the owner of any interest in those products.

### **Employment and Industry Development Assistance**

111 The Commonwealth and State Governments are committed to the provision of assistance, by way of the NSW Forest Industry Structural Adjustment Package, to native forest businesses and workers directly affected by restructuring of the NSW forest industry in accordance with the outcomes of this Agreement. The Commonwealth commits \$60 million, effective upon the signing of all currently proposed RFAs, and the State Government \$60 million to the NSW FISAP to achieve the required level of restructuring and to assist in the creation of an ecologically sustainable, efficient and internationally competitive timber industry with a focus on value-adding, investment growth, and job creation.

### **Termination**

112 This Agreement may only be terminated by the Commonwealth:

- (a) where the dispute resolution procedures in clauses 10 to 14 have been observed and the State has been given a 90 day period of notice on:
  - (i) a failure by the State to comply with clause 67, being a failure to implement the CAR Reserve System described in Attachments 1(A) and 1 (B) and to manage and conserve the identified CAR Values; or
  - (ii) a failure to comply with clause 36, 48(a), and 48(b) being a failure to maintain a New South Wales Forest Agreement and an IFOA that reflects the outcomes of this Agreement throughout the life of this Agreement; or
  - (iii) a failure to comply with clause 48(d), being a failure to produce and publish by 30 June 2000 a Regional ESFM Plan; or
  - (iv) a failure to comply with clause 78 being to implement the Long-term Timber Supply Strategy and Sustainable Yield Systems and Processes described in Attachment 12; or
  - (v) a failure to comply with clauses 48(h) and clause 57 being a failure to both develop and implement the environmental management systems in accordance with Attachment 8, and produce a Code of Practice for timber harvesting of native forest on Private Land.

other than a failure of a minor nature which is not one or part of a series of deliberate or reckless failures of a minor nature; and save that the above

provisions do not apply if rectification is possible and has occurred before the end of the 90 day period; or

- (b) on a fundamental failure by the State to comply with the spirit of the Agreement after the observance of the dispute resolution procedures in clauses 10 to 14.

113 This Agreement may only be terminated by the State:

- (a) where the dispute resolution procedures in clauses 10 to 14 have been observed and the Commonwealth has been given a 90 day period of notice on:
  - (i) a failure by the Commonwealth to comply with the terms of any agreement on native forest hardwood timber industry assistance made pursuant to clause 111; or
  - (ii) a failure by the Commonwealth to comply with clause 110, being a failure to pay compensation due under that clause;

save that the above provisions do not apply if rectification is possible and has occurred before the end of the 90 day period; or

- (b) on a fundamental failure by the Commonwealth to comply with the spirit of the Agreement after the observance of the dispute resolution procedures in clauses 10 to 14.

114 This Agreement may be terminated with the consent of the Commonwealth and the State.

#### **Notice of intention to review before termination by consent**

115 A consent under clause 114 is of no effect, unless:

115.1 it is given at least 12 months after a notice of intention to review the operation of this Agreement is published in the Commonwealth *Gazette* and a national newspaper and a newspaper circulating in New South Wales stating that a joint review is being undertaken by the Parties because they intend to terminate the Agreement by consent; and

115.2 the Parties have conducted the joint review as in accordance with this clause.

115.3 The joint review must consider whether the operation of the Agreement has met the goals set out in Recitals A and B.

115.4 Within eight months after the notice of intention to review is published under this clause, and after considering any submissions to the joint review, the Parties must make a report of the review publicly available.

115.5 If, under clause 40, a five-yearly review is to be conducted during the 12 month period after a notice of intention to review is published under this clause, and



the joint review is conducted under this clause, the Parties may agree that the review under clause 40 need not be undertaken.

IN WITNESS WHEREOF this Agreement has been signed for and on behalf of the Parties as at the day and year first above written.

SIGNED by

the HONOURABLE JOHN WINSTON HOWARD MP, Prime Minister

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for and on behalf of the Commonwealth of Australia

in the presence of:

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SIGNED by

the HONOURABLE BOB CARR MP, Premier

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for and on behalf of the State of New South Wales

in the presence of: )

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## **ATTACHMENTS**

<b>Attachment 1(A)</b>	<b>Comprehensive, Adequate and Representative (CAR) Reserve System – Upper North East Region.</b>
<b>Attachment 1(B)</b>	<b>Comprehensive, Adequate and Representative (CAR) Reserve System – Lower North East Region.</b>
<b>Attachment 2</b>	<b>Private Land Conservation.</b>
<b>Attachment 3</b>	<b>Threatened, Flora, Fauna and Ecological Communities.</b>
<b>Attachment 4</b>	<b>National Estate Values.</b>
<b>Attachment 5</b>	<b>Milestones.</b>
<b>Attachment 6</b>	<b>Public Reporting and Consultative Mechanisms.</b>
<b>Attachment 7</b>	<b>Research Priorities.</b>
<b>Attachment 8</b>	<b>Improvements to the NSW Forest Management Systems.</b>
<b>Attachment 9</b>	<b>Montreal Process Criteria for the Conservation and Sustainable Management of Temperate and Boreal Forests.</b>
<b>Attachment 10</b>	<b>Managing Lands of Significance to Indigenous People</b>
<b>Attachment 11</b>	<b>Employment and Industry Development Initiatives by the NSW Government for the Upper North East and Lower North East Regions.</b>
<b>Attachment 12</b>	<b>Long-term Timber Supply Strategy and Sustainable Yield Systems and Processes.</b>
<b>Attachment 13</b>	<b>Data Agreement</b>
<b>Attachment 14</b>	<b>Principles of Ecologically Sustainable Forest Management (ESFM).</b>

**COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE (CAR)  
RESERVE SYSTEM**

**UPPER NORTH EAST REGION**

- 1 Map 1(A) and this Attachment identify the CAR Reserve System on Public Land for the Upper North East region for the purpose of this Agreement.
- 2 The *National Forest Policy Statement* (NFPS) established that the CAR Reserve System will, in the first instance, be selected from Public Land. Provision is also made in the JANIS Reserve Criteria for inclusion of Private Land in the CAR Reserve System, with the agreement of landholders, where the Criteria cannot be met from Public Land.
- 3 In the Upper North East region, the CAR Reserve System on Public Land primarily comprises areas established for conservation purposes (eg National Parks and Nature Reserves) and areas reserved for conservation in State forest.

**CAR RESERVE SYSTEM COMPONENTS AND PROTECTION MECHANISMS.**

- 4 The CAR Reserve System on Public Land has the following three components:
  - *Dedicated Reserves.* This comprises reserves established through legislation for conservation purposes such as National Parks, Nature Reserves and Flora Reserves (Special Protection Zone).
  - *Informal Reserves.* This comprises those parts of the Special Management Zone under the Forest Management Zoning system that are greater than 40ha, and wider than 200m wide, or are directly adjacent to Dedicated Reserves. It also includes those areas dedicated as Crown Reserves under the provisions of the *Crown Lands Act 1989* (NSW) and State Recreation Areas which are managed by the NSW National Parks and Wildlife Service. Plans of Management for Crown Reserves will be prepared by 1 January 2005 as outlined in the New South Wales *Upper North East Region Forest Agreement*.
  - *Values protected by Prescription.* These comprise those elements of habitat protected by Regional Prescriptions as detailed in the Integrated Forestry Operations Approval covering the Upper North East region and areas within the Harvesting Exclusions and Special Prescription Zone under the Forest Management Zoning system that, due to the size or shape, do not meet the Informal Reserve category outlined above. The Integrated Forestry Operations Approval complements the Dedicated and Informal Reserve network and includes additional levels of protection for rare non-commercial forest types, Old Growth forest, rainforest and threatened species in all areas that have been identified to be primarily managed for sustainable production.

- 5 NSW will finalise boundaries of the CAR Reserves to enable its implementation within 6 months of signing this Agreement. Finalisation will include identifying suitable management boundaries. Wherever possible, these will follow easily identifiable features such as cadastre and roads and natural or ecological boundaries. Finalisation will also consider field verification of values being protected and appropriate boundaries mapped to protect the identified values.
- 6 The Dedicated Reserve component of the CAR Reserve System covers 506,200ha, the Informal Reserve component 93,800ha and the prescriptive component 118,300ha. Together the Dedicated Reserve and Informal Reserve components of the CAR Reserve System cover an area of approximately 600,000ha (about 46.1% of the Public Land in the region or 15.4% percent of the entire region).

#### Forest Management Zoning

- 7 New South Wales will, by 30 June 2000, produce a Regional ESFM Plan for the Upper North East region that includes Forest Management Zoning within State forests as described in the document *Forest Management Zoning in State Forests*, (SFNSW 1999). Of particular significance for the conservation of Forest Ecosystems and Old Growth forest are the:
  - *Special Protection Zone (FMZ 1)*. These areas are dedicated and managed to maximise the protection of natural and cultural values. Timber harvesting, removal of Forest Products and materials, grazing by domestic stock, gravel/hard rock quarrying and mineral and petroleum exploration are not generally permitted within this zone.
  - *Special Management Zone (FMZ 2)*. These areas are established following public comment and are gazetted and managed for the protection of natural and cultural conservation values where it is not possible or practicable to include them in the Special Protection Zone. Activities not permitted in this zone are similar to the Special Protection Zone except that mineral and petroleum exploration are permitted. Any mining proposal following from exploration will require standard environmental impact assessment and development approval processes.
  - *Harvesting Exclusions Zone (FMZ 3A)*. These are areas where harvesting is excluded but other management and production activities preclude zoning as Special Protection Zone or Special Management Zone. These may be:
    - i) Dedicated leasehold where lease conditions permit activities such as grazing and timber supply for lease fencing etc, and in some cases residency, or
    - ii) Areas identified as important by the Department of Mineral Resources where there are current or imminent petroleum and mineral exploration and/ or mining activities, or

- iii) Other areas which are excluded from harvesting (eg. Net Harvestable Area (NHA) exclusions) but size, boundaries or management practicabilities preclude designation as FMZ 1 or FMZ 2.
  - *Special Prescription Zone (FMZ 3B)*. These areas are established for the protection and management of identified conservation values, whilst also allowing other management and production activities. These activities (which in some cases includes timber, Forest Product and materials extraction) are minimised in their design and implementation to maintain or enhance the values that the area is zoned to protect. A case by case assessment of these areas will be undertaken to determine which forestry activities can occur. The decision is dependent on the specific values involved.
- 8 New South Wales agrees to establish all Dedicated Reserve and Informal Reserve components of the CAR Reserve System within six months of signing this Agreement.

### **Integrated Forestry Operations Approval**

- 9 The Integrated Forestry Operations Approval covering the Upper North East region is the principal vehicle by which Environment and Heritage Values that are impracticable to include in reserves can be conserved. The JANIS Reserve Criteria provide for the management of such values through prescriptions. The Integrated Forestry Operations Approval takes account of the extent of reserved habitat, whether the prescriptions are operationally feasible, and the relative conservation status of each species.

### **IDENTIFIED CAR VALUES AND THEIR PROTECTION AFFORDED THROUGH THE RFA**

- 10 Levels of protection for Forest Ecosystems and Old Growth forest achieved in the CAR Reserve System are shown in Tables 1 and 2 of this Attachment as follows:
- Dedicated Reserves; as described in Clause 4 of this Attachment,
  - Informal Reserves; as described in Clause 4 of this Attachment,
  - Prescription; includes the areas within the Harvesting Exclusions Zone (Zone 3A), and those areas of the Special Management Zone (Zone 2) that, due the size or shape, do not meet the Informal Reserve category outlined above.

It should be noted that the Special Prescription Zone (Zone 3B) and the IFOA afford additional protection over that included in the table.

**Table 1. Percentage reservation status of Forest and Non-Forest Ecosystems in the CAR Reserve System in the Upper North East region based on vegetation modelling to establish the pre-1750 extent of Forest Ecosystems in the region<sup>a</sup>**

Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
2 Alpine Gum*	4165	1329	31.9	V	5.9	1.5	0.8	8.2
3 Baileys Stringybark	46720	34931	74.8	-	28.6	5.1	0.2	33.9
10 Black Sallee	6	6	100.0	R	100.0	0.0	0.0	100.0
12 Blue Mountain Ash	121	121	100.0	R	43.3	0.0	52.4	95.7
14 Brown Barrell	398	166	41.7	R	6.0	0.0	0.1	6.2
15 Brown Barrell-Gum*	2587	1004	38.8	R	6.1	0.0	0.1	6.2
16 Bull Oak	2	2	100.0	R	0.0	100.0	0.0	100.0
17 Candlebark*	10200	1961	19.2	R	0.8	0.1	0.0	0.9
19 Central Mid Elevation Sydney Blue Gum*	12586	6786	53.9	-	6.9	0.9	3.0	10.8
20 Clarence Lowland Needlebark Stringybark	12496	10817	86.6	-	26.6	21.9	6.9	55.4
21 Lowlands Grey Box*	61789	23913	38.7	V	0.3	0.1	0.2	0.6
22 Coast Cypress Pine*	158	82	51.9	R	41.2	0.0	0.0	41.2
23 Coast Range Bloodwood-Mahogany	18055	5919	32.8	-	9.0	4.5	0.3	13.8
24 Clarence Lowlands Spotted Gum*	343968	174787	50.8	-	2.5	1.6	1.4	5.5
25 Coast Range Spotted Gum-Blackbutt*	885	743	84.0	R	10.0	0.9	3.1	14.0
26 Coastal Flooded Gum	14910	9426	63.2	-	22.2	0.4	1.4	24.0
27 Coastal Sands Blackbutt	4518	3101	68.6	-	63.0	0.0	0.1	63.1
29 Corkwood-Crabapple and Mixed Stringybarks	7149	6093	85.2	-	30.4	5.3	12.4	48.1
30 Diehard Stringybark-New England Blackbutt*	2769	1062	38.4	R	4.0	0.3	0.1	4.3
31 Dorrig White Gum*	3851	3385	87.9	R	9.3	0.1	0.1	9.5
32 Dry Foothills Blackbutt-Turpentine	9370	7364	78.6	-	8.1	1.8	3.1	12.9
33 Dry Foothills Spotted Gum	97714	90829	93.0	-	13.4	4.1	10.6	28.1
34 Dry Grassy Blackbutt-Tallowwood	9880	6052	61.3	-	9.8	0.4	3.4	13.6
35 Dry Grassy Stringybark	87820	69987	79.7	-	23.1	2.3	4.6	30.1
36 Dry Grassy Tallowwood-Grey Gum*	9726	5564	57.2	-	3.9	0.4	1.4	5.7
37 Dry Heathy Blackbutt-Bloodwood	75580	46630	61.7	-	8.4	6.6	2.6	17.6
38 Dry Heathy New England Blackbutt	4580	4276	93.4	-	38.9	5.9	16.5	61.4
39 Dry Heathy New England Stringybarks	1178	1178	100.0	-	99.5	0.0	0.0	99.5
40 Dry Heathy Sandstone Blackbutt	20939	19036	90.9	-	25.2	5.9	3.0	34.1
41 Dry Open New England Blackbutt	219262	121339	55.3	-	13.6	1.5	3.0	18.0
42 Dry Redgum-Bloodwood-Apple	245	243	99.2	R	89.5	0.0	0.2	89.7
43 Dry Silvertop Stringybark-Apple	15059	13041	86.6	-	31.7	0.1	0.2	32.0
44 Dry open Redgum-Broad Leaved Apple	11330	10484	92.5	-	46.9	0.5	1.0	48.4
45 Dunns White Gum*	1453	975	67.1	R	34.9	1.3	4.2	40.3
46 Eastern Red Gums	2967	3002	100.0	V	38.2	19.4	7.0	64.5
47 Escarpment Redgum*	55897	28206	50.5	-	8.1	0.8	4.1	12.9
48 Escarpment Scribbly Gum-Apple	5871	5488	93.5	-	14.7	13.6	16.8	45.1
50 Wet Bangalow-Brushbox*	16154	10098	62.5	V	19.2	0.5	0.7	20.4
52 Foothill Grey Gum-Ironbark-Spotted Gum	59393	46753	78.7	-	11.4	4.1	3.0	18.5



Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
53 Gorge Grey Box	12259	11147	90.9	-	47.5	0.3	1.9	49.7
54 Grey Box-Red Gum-Grey Ironbark	38416	20438	53.2	-	5.4	0.2	0.6	6.2
55 Foothills Grey Gum-Spotted Gum	10634	8685	81.7	-	5.9	3.7	4.5	14.1
56 Granite Mallee	1951	1887	96.7	-	74.8	4.1	0.0	78.8
57 Highland Granite Stringybarks	2708	2483	91.7	-	83.8	0.0	0.0	83.8
58 Gorge Grey Gum	6218	5532	89.0	-	46.2	2.0	0.8	49.0
59 Gorge Ironbark-Grey Gum	74798	63226	84.5	-	16.7	1.6	10.5	28.8
60 Grassy New England Blackbutt-Tallowood-Blue Gum	46952	40245	85.7	-	19.1	3.7	11.1	33.8
61 Grey Box-Ironbark*	146	131	89.7	R	20.3	1.4	0.1	21.7
62 Grey Box-Northern Grey Gum*	1625	509	31.3	R	0.4	1.7	1.1	3.2
63 Grey Gum-Stringybark	14033	12810	91.3	-	30.4	1.4	3.5	35.3
65 Healthy Scribbly Gum	10544	7758	73.6	-	31.3	5.8	2.8	39.9
67 High Elevation Ferny Blackbutt	12235	10462	85.5	-	14.6	2.5	5.6	22.6
68 High Elevation Messmate-Brown Barrel*	1932	329	17.0	R	4.7	0.0	0.1	4.8
69 High Elevation Moist Open Tallowood-Blue Gum	4003	3533	88.3	-	15.3	6.9	12.3	34.5
70 High Elevation Open Spotted Gum	61596	50005	81.2	-	8.8	2.1	7.3	18.2
71 Ironbark*	24667	7713	31.3	-	4.1	0.1	0.5	4.7
72 Low Relief Coastal Blackbutt*	1574	859	54.6	R	9.1	0.6	0.6	10.4
73 Lowland Red Gum*	141011	57016	40.4	-	3.5	2.6	1.2	7.3
74 Lowlands Scribbly Gum*	6783	3496	51.5	V	26.4	1.0	2.3	29.7
75 Lowlands Spotted Gum-Box	37104	19737	53.2	-	7.7	0.8	0.3	8.8
76 Coastal Mallee	2493	1412	56.6	V	48.3	0.0	0.0	48.3
78 Mann River Wet New England Blackbutt	5139	5132	99.9	-	88.4	0.2	0.9	89.5
79 Manna Gum-Stringybark*	95	90	94.7	R	55.8	0.0	0.0	55.8
80 Manna Gum*	5476	1287	23.5	R	3.4	0.0	1.8	5.2
81 Messmate*	17001	6309	37.1	V	5.6	1.2	0.5	7.3
83 Mid Elevation Wet Blackbutt	1333	1180	88.5	-	45.2	8.5	5.9	59.5
84 Mid North Coast Wet Brushbox-Tallowood-Blue Gum	12743	10378	81.4	-	21.0	6.7	6.5	34.1
85 Mixed Moist Hardwood*	818	346	42.3	R	14.9	0.9	1.2	16.9
86 Mixed New England Stringybarks	3320	3002	90.4	-	17.9	2.9	14.9	35.6
87 Mixed Tableland Stringybark-Gum Open Forest*	13471	4694	34.9	-	2.6	1.1	0.4	4.1
88 Moist Escarpment New England Blackbutt	10354	10275	99.2	-	70.4	4.6	3.3	78.3
89 Moist Foothills Spotted Gum	37545	35657	95.0	-	17.2	4.4	13.5	35.0
90 Moist Messmate-Gum	30214	25159	83.3	-	30.7	4.2	6.4	41.3
91 Moist Open Escarpment White Mahogany	1966	1814	92.3	-	13.1	9.2	10.0	32.3
92 Moist Shrubby Stringybark-Gum	5868	4139	70.5	-	18.9	2.5	7.2	28.6
93 Montane Stringybark-Gum*	61335	28687	46.8	-	4.3	0.5	1.2	6.0
95 Northern Moist Blackbutt	10897	9101	83.5	-	37.3	0.9	0.9	39.1
97 Needlebark Stringybark-Large Fruited Blackbutt	10595	9966	94.1	-	25.8	18.2	3.5	47.6
98 New England Peppermint	4372	3590	82.1	-	21.3	8.3	37.6	67.1
99 New England Stringybark-Blakelys Red Gum	14496	10786	74.4	-	20.5	0.0	0.4	20.8
100 Northern Grassy Sydney Blue Gum*	11251	9245	82.2	V	27.9	5.2	9.7	42.8
101 Northern Open Grassy Blackbutt	30488	21590	70.8	-	14.0	2.6	1.3	17.9
102 Northern Ranges Dry Tallowood	100595	57107	56.8	-	6.7	0.4	2.8	9.9
103 Northern Wet Brushbox	25433	16379	64.4	-	18.0	1.8	3.6	23.3
104 Northern Wet Tallowood-	29607	25764	87.0	-	33.8	3.4	4.0	41.2

Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
Blue Gum								
105 Nymboida Tallowwood-Turpentine	3005	2645	88.0	-	54.1	1.6	8.1	63.8
106 Open Coastal Brushbox	9549	6533	68.4	-	11.1	2.2	8.5	21.7
109 Open Shrubby Brushbox-Tallowwood	23572	17472	74.1	-	13.7	2.7	8.0	24.4
110 Open Silvertop Stringybark-Blue Gum	3681	3130	85.0	-	44.3	3.7	3.2	51.2
111 Open Silvertop Stringybark-Tallowwood	4876	4525	92.8	-	16.7	7.4	16.0	40.1
112 Paperbark*	NA	28577	NA	V	NA	NA	NA	NA
113 Peppermint	11200	6478	57.8	-	22.1	0.8	2.4	25.3
114 Peppermint-Mountain/Manna Gum*	42796	12829	30.0	V	3.5	0.0	0.0	3.5
115 Red Bloodwood	239	217	90.8	R	13.2	37.3	31.5	82.0
116 Red Gum-Stringybark*	58064	27128	46.7	-	0.5	0.4	0.2	1.1
117 Red Mahogany	1363	1273	93.4	-	85.1	0.1	0.1	85.4
118 Richmond Range Spotted Gum	48691	22511	46.2	-	4.8	0.3	0.5	5.6
119 Richmond Range Spotted Gum-Box*	41836	24814	59.3	-	5.0	0.8	0.6	6.3
120 River Oak*	4771	3221	67.5	V	4.0	0.3	1.7	6.0
122 Rough-barked Apples	3764	1683	44.7	V	20.5	9.2	6.4	36.2
123 Roundleaved Gum*	40718	17975	44.2	-	11.1	1.0	1.3	13.4
124 Roundleaved Gum-Turpentine	30	30	100.0	R	0.0	0.0	69.5	69.5
126 Sandstone Spotted Gum-Blackbutt*	8872	4808	54.2	-	5.4	3.2	3.1	11.7
127 Sherwood Needlebark Stringybark	11497	9098	79.1	-	6.9	4.2	0.5	11.6
128 Silverleaved Ironbark	2328	1988	85.4	-	0.1	0.0	2.9	3.0
129 Smoothbarked Apple	273	270	98.9	R	93.0	3.3	0.0	96.3
131 Snow Gum	304	288	94.7	R	77.0	0.0	2.7	79.7
132 Snow Gum -Mountain/Manna Gum*	97976	21305	21.8	V	0.9	0.3	0.4	1.6
133 Snow Gum-Black Sallee	2	2	100.0	R	100.0	0.0	0.0	100.0
135 South Coast Tallowwood-Blue Gum	6754	5338	79.0	-	14.3	2.7	6.3	23.4
138 Steel Box/Craven Grey Box*	634	427	67.4	R	23.6	0.9	1.5	26.0
139 Stringybark-Apple	57502	34813	60.5	-	6.5	0.1	2.1	8.7
140 Stringybark-Mallee	2196	2194	99.9	-	98.6	0.1	0.0	98.6
142 Swamp Mahogany*	695	578	83.2	R	25.7	12.3	1.4	39.5
143 Swamp Oak*	11165	2883	25.8	R	7.6	0.2	0.5	8.3
145 Sydney Peppermint-Stringybark*	267	255	95.5	R	9.4	0.3	0.0	9.7
146 Tallowwood	9191	8430	91.7	-	52.3	0.9	2.5	55.6
147 Turpentine	6784	2943	43.4	-	15.2	0.6	0.6	16.4
148 Very Wet New England Blackbutt-Tallowwood	1499	1498	99.9	-	89.0	1.1	0.1	90.2
149 Mallee-Peppermint mosaic*	2721	1618	59.5	-	11.4	0.4	1.3	13.0
150 Washpool Brushbox-Tallowwood	5683	5683	100.0	-	83.5	4.3	3.5	91.3
152 Wet Bloodwood-Tallowwood	53783	33357	62.0	-	9.6	0.5	2.2	12.3
153 Wet Coastal Tallowwood-Brushbox	12436	6581	52.9	-	0.7	0.6	1.6	2.9
154 Wet Flooded Gum-Tallowwood*	24207	9317	38.5	-	2.2	0.7	1.1	3.9
155 Wet Foothills Blackbutt-Turpentine	8219	7437	90.5	-	16.0	4.6	4.9	25.6
157 Wet Shrubby Brushbox-Tallowwood	6265	4891	78.1	-	22.2	5.9	13.5	41.6
158 Wet Spotted Gum-Tallowwood	2539	2538	100.0	-	24.7	3.5	5.4	33.6
162 Whitetopped Box	4	4	100.0	R	0.0	23.0	77.0	100.0
163 Yellow Box-Blakely's Red Gum*	39525	7245	18.3	V	0.5	0.4	0.1	1.0
168 Rainforest*	NA	159211	NA	E	NA	NA	NA	NA

Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
174 Orange Gum-Tumbledown Gum-Apple	27288	15435	56.6	-	0.0	0.0	0.6	0.7
175 Orange Gum-New England Blackbutt-Tumbledown Gum*	39537	19304	48.8	-	2.3	0.3	0.1	2.7
176 Orange Gum-Ironbark*	82312	34295	41.7	-	0.5	0.6	0.1	1.1
177 Outcrop Orange Gum-New England Blackbutt*	26428	7945	30.1	-	1.1	2.4	0.3	3.8
178 Outcrop Black Cypress-Tumbledown Gum	1642	1034	63.0	-	0.0	0.1	0.2	0.3
179 Yellow Box-Broad-leaved Stringybark*	11549	3859	33.4	V	0.0	0.7	6.1	6.8
180 Western New England Blackbutt	14754	12415	84.2	-	0.0	21.9	0.3	22.2
181 Stringybark-Gum	34306	30258	88.2	-	0.0	53.3	0.1	53.4
182 Apple-Black Cypress	2350	1994	84.9	-	0.0	9.3	0.0	9.3
183 Red Gum-Apple*	1569	592	37.7	R	0.0	0.1	0.0	0.1
184 Tumbledown Gum-Ironbark	13841	11070	80.0	-	0.0	27.2	0.4	27.6
185 Orange Gum-Black Cypress	5585	3510	62.9	-	0.0	15.9	9.3	25.2
186 Open Tumbledown Gum-Black Cypress-Orange Gum*	25417	10593	41.7	-	1.7	0.4	0.3	2.4
189 Silverleaved Ironbark-Cypress	40819	23285	57.0	-	0.2	0.2	0.0	0.5
190 Yellow Box-Grey Box-Red Gum*	60630	21273	35.1	V	0.5	0.5	0.1	1.0
194 Round-leaved Gum wet heath	8627	5997	69.5	-	0.0	26.0	2.3	28.3
195 Apple-Manna Gum woodland*	35674	16214	45.5	-	2.9	0.1	0.0	3.0
196 Broad-leaved Stringybark-Apple Box*	53457	19948	37.3	V	2.3	1.4	3.1	6.8
197 Broad-leaved Stringybark*	4409	1643	37.3	V	1.6	0.3	0.1	2.0
198 Silvertop Stringybark*	4527	1200	26.5	V	0.1	0.1	0.2	0.3
200 Broad-leaved Stringybark-Ribbon Gum*	2022	650	32.2	R	0.0	0.0	0.0	0.0

Non-Forest Ecosystems	Area		Percent Remaining	Status <sup>b</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
5 Banksia	7561.0	2046	27.1	R	6.5	0.3	0.0	6.8
18 Casuarina Woodland	NA	43	NA	R	NA	NA	NA	NA
64 Heath	NA	9805	NA	V	NA	NA	NA	NA
66 Herbfield and Fjaeldmark	NA	68	NA	R	NA	NA	NA	NA
77 Mangrove	NA	734	NA	R	NA	NA	NA	NA
96 Natural Grassland	NA	370	NA	R	NA	NA	NA	NA
121 Rock	NA	18162	NA	-	NA	NA	NA	NA
125 Saltbush	17.0	16	94.1	R	55.8	0.0	0.0	55.8
141 Swamp	NA	24118	NA	E	NA	NA	NA	NA
169 Scrub	NA	5447	NA	V	NA	NA	NA	NA
199 Riparian Shrubland	5508.0	1252	22.7	V	0.0	0.0	0.0	0.0

#### NOTES ACCOMPANYING TABLE 1

- The figures shown in this table are based on modelled information mapped at a scale of 1:25 000 derived during the pre-1750 analysis of vegetation types in the Upper North East and Lower North East regions, and are therefore only approximate. Those ecosystems with 'NA' listed under Pre-1750 (ha) were not modelled to determine their pre-1750 extent (refer to CRA project report NA35/EH).
- Forest Ecosystems are as described in the document *Forest Ecosystem Classification and Mapping for the Upper and Lower North East CRA Regions* CRA Unit, Northern Zone National Parks and Wildlife Service. (Project NA35/EH January 1999)
- The status is based on: Rare (R) which has a total current area below 1000 hectares and a target of 100% of its current distribution. Endangered (E) which has < 10% remaining and a target of 100% of its current distribution. Vulnerable (V) which has between 10-30% remaining and a target of 60% of its current distribution. Some values were given their rare, endangered or vulnerable status due to other factors such as range of distribution, patch size and expert opinion on vulnerability. All remaining Forest Ecosystems have a target of 15% of their pre-1750 distribution.

- d. Informal Reserve includes Special Management Zones that are > 40ha and > 200m wide, or that are adjacent to Dedicated Reserves.
- e. Tabulated prescriptions include those elements of the Special Management Zone that, due to the size of shape, do not meet the Informal Reserve category outline above, and the Harvesting Exclusions Zone.
- \* These Forest Ecosystems have been identified as priorities for protection on Private Land (see Attachment 2).

NA Pre-1750 distribution was not able to be predicted.

**Table 2. Conservation of Candidate Old Growth forest in the CAR Reserve System in the Upper North East region<sup>a</sup>**

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Candidate Old Growth <sup>b</sup>	Area Candidate Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
2 OG Alpine Gum	1329	18.9	251	44.7	17.2	5.1	67.0
3 OG Baileys Stringybark	34931	62.2	21733	58.1	1.3	0.4	59.8
10 OG Black Sallee	6	66.7	4	100.0	0.0	0.0	100.0
12 OG Blue Mountain Ash	121	87.6	106	48.7	0.0	50.5	99.1
14 OG Brown Barrell	166	18.1	30	50.0	0.0	0.0	50.0
15 OG Brown Barrell-Gum	1004	14.0	141	42.8	0.0	1.1	43.9
17 OG Candlebark	1961	25.4	498	7.0	0.3	0.1	7.3
19 OG Central Mid Elevation Sydney Blue Gum	6786	16.7	1131	40.3	4.3	17.9	62.5
20 OG Clarence Lowland Needlebark Stringybark	10817	54.1	5847	41.4	36.4	3.3	81.1
21 OG Lowlands Grey Box	23913	11.1	2642	1.8	0.1	1.8	3.8
23 OG Coast Range Bloodwood-Mahogany	5919	33.0	1951	47.6	21.8	1.7	71.1
24 OG Clarence Lowlands Spotted Gum	174787	18.8	32921	18.2	8.9	12.2	39.3
25 OG Coast Range Spotted Gum-Blackbutt	743	14.4	107	17.1	4.7	21.5	43.2
26 OG Coastal Flooded Gum	9426	22.4	2108	78.2	2.0	5.0	85.2
27 OG Coastal Sands Blackbutt	3101	72.2	2240	96.8	0.0	0.3	97.0
29 OG Corkwood-Crabapple and Mixed Stringybarks	6093	47.5	2891	49.0	8.0	22.3	79.2
30 OG Diehard Stringybark-New England Blackbutt	1062	14.2	151	38.2	2.7	0.2	41.0
31 OG Dorrigo White Gum	3385	82.8	2802	11.8	0.0	0.1	11.8
32 OG Dry Foothills Blackbutt-Turpentine	7364	14.2	1043	31.7	10.6	13.3	55.6
33 OG Dry Foothills Spotted Gum	90829	44.0	39933	22.9	7.6	23.3	53.8
34 OG Dry Grassy Blackbutt-Tallowwood	6052	19.0	1148	41.2	0.9	24.2	66.3
35 OG Dry Grassy Stringybark	69987	58.5	40951	42.9	2.7	7.3	52.8
36 OG Dry Grassy Tallowwood-Grey Gum	5564	10.3	572	41.9	0.9	18.9	61.6
37 OG Dry Heathy Blackbutt-Bloodwood	46630	31.4	14649	24.3	20.8	9.7	54.9
38 OG Dry Heathy New England Blackbutt	4276	64.6	2762	53.7	3.3	21.5	78.5
39 OG Dry Heathy New England Stringybarks	1178	93.3	1099	99.8	0.0	0.0	99.8
40 OG Dry Heathy Sandstone Blackbutt	19036	41.4	7877	49.7	7.0	6.4	63.1
41 OG Dry Open New England Blackbutt	121339	43.1	52268	43.2	3.2	10.5	56.8
42 OG Dry Redgum-Bloodwood-Apple	243	91.0	221	92.0	0.0	0.3	92.2
43 OG Dry Silvertop Stringybark-Apple	13041	75.9	9893	42.6	0.0	0.2	42.8
44 OG Dry open Redgum-Broad Leaved Apple	10484	79.9	8373	54.5	0.2	0.7	55.5
45 OG Dunns White Gum	975	11.1	108	75.5	4.9	1.7	82.2
46 OG Eastern Red Gums	3002	47.8	1436	34.9	33.5	8.2	76.5
47 OG Escarpment Redgum	28206	23.3	6571	26.6	2.7	25.9	55.2

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Candidate Old Growth <sup>b</sup>	Area Candidate Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
48 OG Escarpment Scribbly Gum-Apple	5488	58.4	3205	24.8	15.7	12.4	52.9
50 OG Wet Bangalow-Brushbox	10098	34.2	3452	61.9	0.8	2.2	64.9
52 OG Foothill Grey Gum-Ironbark-Spotted Gum	46753	26.9	12588	37.4	9.0	9.6	56.0
53 OG Gorge Grey Box	11147	74.7	8325	57.2	0.4	1.6	59.2
54 OG Grey Box-Red Gum-Grey Ironbark	20438	23.7	4836	23.1	1.2	2.9	27.2
55 OG Foothills Grey Gum-Spotted Gum	8685	17.2	1495	21.0	14.3	22.8	58.1
56 OG Granite Mallee	1887	75.1	1417	90.8	1.3	0.0	92.1
57 OG Highland Granite Stringybarks	2483	72.3	1795	98.6	0.0	0.0	98.7
58 OG Gorge Grey Gum	5532	75.9	4198	60.1	2.2	0.8	63.2
59 OG Gorge Ironbark-Grey Gum	63226	43.0	27179	40.2	3.0	20.9	64.2
60 OG Grassy New England Blackbutt-Tallowwood-Blue Gum	40245	47.7	19176	37.0	6.5	23.2	66.7
61 OG Grey Box-Ironbark	131	32.1	42	50.0	2.4	0.0	52.4
62 OG Grey Box-Northern Grey Gum	509	2.6	13	10.5	60.0	5.5	76.0
63 OG Grey Gum-Stringybark	12810	71.9	9212	43.8	1.8	4.3	49.9
65 OG Heathy Scribbly Gum	7758	41.0	3179	71.2	11.3	0.7	83.2
67 OG High Elevation Ferny Blackbutt	10462	19.0	1990	38.2	14.7	28.3	81.1
68 OG High Elevation Messmate-Brown Barrell	329	32.8	108	80.2	0.0	0.9	81.0
69 OG High Elevation Moist Open Tallowwood-Blue Gum	3533	42.8	1513	31.6	15.3	26.8	73.8
70 OG High Elevation Open Spotted Gum	50005	31.2	15622	22.0	4.6	21.2	47.8
71 OG Ironbark	7713	6.1	472	15.8	1.4	21.2	38.4
72 OG Low Relief Coastal Blackbutt	859	4.3	37	51.4	13.3	11.0	75.7
73 OG Lowland Red Gum	57016	15.2	8679	26.2	10.1	8.3	44.7
74 OG Lowlands Scribbly Gum	3496	39.9	1396	83.2	3.2	0.9	87.3
75 OG Lowlands Spotted Gum-Box	19737	6.5	1288	19.2	10.7	3.8	33.7
76 OG Coastal Mallee	1412	18.5	261	93.2	0.0	0.0	93.2
78 OG Mann River Wet New England Blackbutt	5132	83.4	4280	93.2	0.2	1.1	94.6
79 OG Manna Gum-Stringybark	90	70.0	63	77.5	0.0	0.0	77.5
80 OG Manna Gum	1287	12.7	164	43.8	0.0	21.9	65.7
81 OG Messmate	6309	28.1	1775	40.2	10.0	3.8	54.0
83 OG Mid Elevation Wet Blackbutt	1180	18.8	222	36.3	34.3	18.9	89.6
84 OG Mid North Coast Wet Brushbox-Tallowwood-Blue Gum	10378	30.4	3152	47.6	22.6	16.4	86.6
85 OG Mixed Moist Hardwood	346	17.9	62	64.3	10.3	9.6	84.3
86 OG Mixed New England Stringybarks	3002	36.5	1096	37.2	6.5	26.5	70.1
87 OG Mixed Tableland Stringybark-Gum Open Forest	4694	21.4	1005	11.5	8.7	3.1	23.2
88 OG Moist Escarpment New England Blackbutt	10275	72.5	7451	85.6	1.4	3.4	90.4
89 OG Moist Foothills Spotted Gum	35657	39.6	14111	27.9	8.9	28.8	65.5
90 OG Moist Messmate-Gum	25159	42.2	10627	59.9	7.5	11.7	79.0

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Candidate Old Growth <sup>b</sup>	Area Candidate Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
91 OG Moist Open Escarpment White Mahogany	1814	44.5	807	16.3	21.4	22.8	60.5
92 OG Moist Shrubby Stringybark-Gum	4139	31.8	1314	59.6	4.2	17.9	81.7
93 OG Montane Stringybark-Gum	28687	25.1	7190	20.5	1.8	8.2	30.4
95 OG Northern Moist Blackbutt	9101	17.4	1585	56.6	2.3	1.1	60.0
97 OG Needlebark Stringybark-Large Fruited Blackbutt	9966	53.8	5360	45.5	20.9	6.0	72.4
98 OG New England Peppermint	3590	40.6	1459	30.8	18.1	44.5	93.4
99 OG New England Stringybark-Blakelys Red Gum	10786	61.7	6653	37.1	0.0	0.3	37.4
100 OG Northern Grassy Sydney Blue Gum	9245	35.3	3263	45.3	7.0	21.0	73.2
101 OG Northern Open Grassy Blackbutt	21590	22.3	4816	42.5	7.4	5.0	54.9
102 OG Northern Ranges Dry Tallowwood	57107	19.8	11286	21.5	2.9	17.3	41.7
103 OG Northern Wet Brushbox	16379	28.9	4740	53.0	7.0	13.3	73.3
104 OG Northern Wet Tallowwood-Blue Gum	25764	37.9	9766	67.1	6.4	6.8	80.3
105 OG Nymboida Tallowwood-Turpentine	2645	48.5	1284	78.9	2.1	16.0	97.1
106 OG Open Coastal Brushbox	6533	28.5	1860	33.6	7.3	27.7	68.6
109 OG Open Shrubby Brushbox-Tallowwood	17472	40.1	7011	32.8	6.8	20.9	60.5
110 OG Open Silvertop Stringybark-Blue Gum	3130	60.2	1885	67.1	2.7	5.4	75.2
111 OG Open Silvertop Stringybark-Tallowwood	4525	47.4	2144	32.6	13.7	28.1	74.3
113 OG Peppermint	6478	41.6	2693	66.0	1.3	3.7	71.0
114 OG Peppermint-Mountain/Manna Gum	12829	24.3	3112	27.4	0.0	0.5	27.9
115 OG Red Bloodwood	217	6.9	15	93.3	0.0	0.0	93.3
116 OG Red Gum-Stringybark	27128	9.6	2616	8.3	1.0	4.1	13.4
117 OG Red Mahogany	1273	51.0	649	94.5	0.3	0.0	94.8
118 OG Richmond Range Spotted Gum	22511	8.9	2011	8.6	6.9	6.5	22.0
119 OG Richmond Range Spotted Gum-Box	24814	14.9	3694	20.9	7.9	4.4	33.3
122 OG Rough-barked Apples	1683	53.5	900	59.0	21.3	15.0	95.3
123 OG Roundleaved Gum	17975	38.6	6929	52.2	3.8	5.1	61.1
124 OG Roundleaved Gum-Turpentine	30	23.3	7	0.0	0.0	68.0	68.0
126 OG Sandstone Spotted Gum-Blackbutt	4808	28.7	1378	15.4	19.2	16.9	51.4
127 OG Sherwood Needlebark Stringybark	9098	41.1	3736	17.9	0.9	1.2	20.1
128 OG Silverleaved Ironbark	1988	49.2	978	0.2	0.0	4.5	4.7
129 OG Smoothbarked Apple	270	75.2	203	93.5	4.4	0.0	97.9
131 OG Snow Gum	288	45.5	131	89.3	0.0	0.7	89.9
132 OG Snow Gum - Mountain/Manna Gum	21305	8.7	1860	34.7	6.3	19.9	60.9
135 OG South Coast Tallowwood-Blue Gum	5338	24.0	1283	56.6	10.0	18.1	84.7
138 OG Steel Box/Craven Grey Box	427	3.8	16	0.0	0.0	31.3	31.3
139 OG Stringybark-Apple	34813	36.3	12652	14.3	0.5	7.0	21.8

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Candidate Old Growth <sup>b</sup>	Area Candidate Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
140 OG Stringybark-Mallee	2194	84.0	1842	99.1	0.1	0.0	99.1
142 OG Swamp Mahogany	578	17.3	100	87.8	0.0	0.0	87.8
145 OG Sydney Peppermint-Stringybark	255	47.1	120	18.1	0.0	0.0	18.1
146 OG Tallowwood	8430	62.6	5278	56.6	1.2	3.6	61.4
147 OG Turpentine	2943	11.5	338	51.7	5.2	5.0	62.0
148 OG Very Wet New England Blackbutt-Tallowwood	1498	82.8	1240	93.8	0.3	0.1	94.2
149 OG Mallee-Peppermint mosaic	1618	44.1	714	37.2	0.0	0.9	38.1
150 OG Washpool Brushbox-Tallowwood	5683	88.8	5047	89.3	0.4	3.5	93.1
152 OG Wet Bloodwood-Tallowwood	33357	13.2	4400	32.9	4.8	18.0	55.7
153 OG Wet Coastal Tallowwood-Brushbox	6581	2.8	187	10.7	3.6	48.4	62.7
154 OG Wet Flooded Gum-Tallowwood	9317	7.2	675	28.6	13.3	10.6	52.5
155 OG Wet Foothills Blackbutt-Turpentine	7437	16.1	1196	32.1	23.2	20.2	75.5
157 OG Wet Shrubby Brushbox-Tallowwood	4891	47.8	2339	43.5	13.7	25.5	82.7
158 OG Wet Spotted Gum-Tallowwood	2538	31.5	800	76.0	10.8	10.9	97.7
162 OG Whitetopped Box	4	100.0	4	0.0	23.0	77.0	100.0
163 OG Yellow Box-Blakely's Red Gum	7245	10.1	728	26.2	3.6	3.7	33.4
174 OG Orange Gum-Tumbledown Gum-Apple	15435	10.8	1663	0.6	0.3	9.5	10.4
175 OG Orange Gum-New England Blackbutt-Tumbledown Gum	19304	8.5	1645	42.5	0.2	1.2	43.9
176 OG Orange Gum-Ironbark	34295	6.7	2306	14.8	1.3	2.7	18.7
177 OG Outcrop Orange Gum-New England Blackbutt	7945	21.5	1706	15.0	34.1	4.5	53.6
178 OG Outcrop Black Cypress-Tumbledown Gum	1034	10.6	110	0.0	1.7	2.5	4.2
179 OG Yellow Box-Broad-leaved Stringybark	3859	22.6	873	0.0	1.9	79.8	81.6
180 OG Western New England Blackbutt	12415	63.3	7857	0.0	40.1	0.6	40.7
181 OG Stringybark-Gum	30258	80.7	24412	0.0	73.5	0.2	73.7
182 OG Apple-Black Cypress	1994	35.3	703	0.0	31.0	0.0	31.0
183 OG Red Gum-Apple	592	3.0	18	0.0	0.0	0.0	0.0
184 OG Tumbledown Gum-Ironbark	11070	73.1	8089	0.0	45.3	0.7	46.0
185 OG Orange Gum-Black Cypress	3510	68.9	2419	0.0	34.4	21.2	55.7
186 OG Open Tumbledown Gum-Black Cypress-Orange Gum	10593	8.9	939	36.1	2.5	6.6	45.3
189 OG Silverleaved Ironbark-Cypress	23285	29.0	6741	1.0	0.2	0.0	1.1
190 OG Yellow Box-Grey Box-Red Gum	21273	7.8	1662	13.0	0.9	2.5	16.4
194 OG Round-leaved Gum wet heath	5997	50.2	3011	0.0	68.1	6.5	74.6
195 OG Apple-Manna Gum woodland	16214	9.9	1599	49.5	0.0	0.0	49.5
196 OG Broad-leaved Stringybark-	19948	21.7	4326	22.7	10.6	37.5	70.7



Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Candidate Old Growth <sup>b</sup>	Area Candidate Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
Apple Box							
197 OG Broad-leaved Stringybark	1643	9.3	153	40.9	2.0	1.3	44.2
198 OG Silvertop Stringybark	1200	3.5	42	15.5	0.0	16.7	32.2
200 OG Broad-leaved Stringybark-Ribbon Gum	650	13.4	87	0.0	0.3	0.0	0.3

#### NOTES ACCOMPANYING TABLE 2

- a. The figures shown in this table are based on modelled information mapped at a scale of 1:25 000 derived during the pre-1750 analysis of vegetation types in the Upper North East and Lower North East regions, and are therefore only approximate.
- b. Old growth Forest Ecosystems are referred to as Candidate old growth because time constraints and availability of data sets did not allow for the full assessment of values characteristic of old growth forests (eg. some structural, compositional and functional characteristics and aesthetic values). Candidate old growth forest was identified primarily by aerial photographic interpretation, and information on disturbance from logging and fire. Further information is available in the report *Old-Growth Forest Related Projects – UNE / LNE CRA Regions*. National Parks and Wildlife Service (Part of Project NA28/EHFebruary 1999).
- c. Informal Reserve includes Special Management Zones that are > 40ha and > 200m wide, or that are adjacent to Dedicated Reserves.
- d. Tabulated prescriptions include those elements of the Special Management Zone that, due to the size or shape, do not meet the Informal Reserve Category outlined above, and the Harvesting Exclusions Zone.

## Wilderness

- 11 59% of Wilderness, as defined in the JANIS Reserve Criteria (ie National Wilderness Inventory (Lesslie and Maslen 1995) minimum rating 12 in patches greater than 8000ha), in the Upper North East region is protected within Dedicated Reserves under this Agreement. Of the Wilderness outside Dedicated Reserve, two thirds (66%) is on freehold or leasehold land. Informal Reserves provide a level of additional protection for Wilderness.

## Additional Protection for Forest Ecosystems

- 12 The Integrated Forestry Operations Approval for the Upper North East Region provides additional protection for Rare non-commercial Forest Types as in *Research Note No. 17 Forest Types in New South Wales* (Forestry Commission of New South Wales, Sydney 1989). These Forest Types include:

- 33 Mangrove
- 42 Blackbutt – Sydney peppermint - Smooth-barked apple
- 64 Grey gum - Stringybark
- 66 Grey Ironbark-Stringybark
- 82 Grey box
- 94 Forest type 94 (not named)
- 107 Banksia
- 115 Sydney peppermint – Stringybark

136	Snow gum - Black sallee
162	White Ash
164	Eurabbie
211	River oak
213	Bull oak
214	Wattle
225	Mallee
30	Swamp mahogany
31	Paperbark
32	Swamp Oak
52	Round-leaved gum
63	Woollybutt
98	Dorrigo white gum
105	Smoothbarked-apple
119	Scribbly gum – Bloodwood
129	Rough-barked apple
130	Red bloodwood
131	Peppermint - Mountain / Manna gum

### **Rainforest Protection**

- 13 The Integrated Forest Operations Approval for the Upper North East Region provides additional protection for rainforest as defined in the IFOA including any area of land within 20m of the boundaries of warm temperate rainforest.

### **Management of CAR Values**

- 14 Management plans identified in Section 2.3 of the New South Wales *Upper North East Region Forest Agreement* for Dedicated Reserve and Informal Reserve elements of the CAR Reserve System will clearly identify the CAR Values and the actions being taken in each reserve to appropriately manage and conserve those values.
- 15 As an integral component of managing CAR values New South Wales agrees to implement systematic and target fauna and flora surveys in Dedicated and Informal Reserves to complement surveys carried out under the IFOAs. The extent of survey work undertaken will be subject to available funding.

**COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE (CAR)  
RESERVE SYSTEM**

**LOWER NORTH EAST REGION**

- 1 Map 1(B) and this Attachment identify the CAR Reserve System on Public Land for the Lower North East region for the purpose of this Agreement.
- 2 The *National Forest Policy Statement* (NFPS) established that the CAR Reserve System will, in the first instance, be selected from Public Land. Provision is also made in the JANIS Reserve Criteria for inclusion of Private Land in the CAR Reserve System, with the agreement of landholders, where the Criteria cannot be met from Public Land.
- 3 In the Lower North East region, the CAR Reserve System on Public Land primarily comprises areas established for conservation purposes (eg National Parks and Nature Reserves) and areas reserved for conservation in State forest.

**CAR RESERVE SYSTEM COMPONENTS AND PROTECTION MECHANISMS**

- 4 The CAR Reserve System on Public Land has the following three components:
  - *Dedicated Reserves.* This comprises reserves established through legislation for conservation purposes such as National Parks, Nature Reserves and Flora Reserves (Special Protection Zone).
  - *Informal Reserves.* This comprises those parts of the Special Management Zone under the Forest Management Zoning system that are greater than 40ha, and more than 200m wide, or are directly adjacent to Dedicated Reserves. It also includes those areas dedicated as Crown Reserves under the provisions of the *Crown Lands Act 1989* (NSW) and State Recreation Areas which are managed by the NSW National Parks and Wildlife Service. Plans of Management for Crown Reserves will be prepared by 1 January 2005 as outlined in the New South Wales *Lower North East Region Forest Agreement*. It also includes Commonwealth Defence lands managed in accordance with Clauses 7 – 10 of this attachment.
  - *Values protected by Prescription.* These comprise those elements of habitat protected by Regional Prescriptions as detailed in the Integrated Forestry Operations Approval covering the Lower North East region and areas within the Harvesting Exclusions and Special Prescription Zone under the Forest Management Zoning system that will be excluded from harvesting. They also include elements of the Special Management Zone that, due to the size or shape, do not meet the Informal Reserve category outlined above. The Integrated Forestry Operations Approval complements the Dedicated and Informal Reserve network and includes additional levels of protection for rare

non-commercial forest types, Old Growth forest, rainforest and threatened species in all areas that have been identified to be primarily managed for sustainable production.

- 5 NSW will finalise boundaries of the CAR Reserves to enable its implementation within six month of signing this Agreement. Finalisation will include identifying suitable management boundaries. Wherever possible, these will follow easily identifiable features such as cadastre and roads and natural or ecological boundaries. Finalisation will also consider field verification of values being protected and appropriate boundaries mapped to protect the identified values.
- 6 The Dedicated Reserve component of the CAR Reserve System covers 1,169,400ha, the Informal Reserve component 148,700ha and the prescriptive component 104,300ha. Together the Dedicated Reserve and Informal Reserve components of the CAR Reserve System cover an area of approximately 1,318,100ha (about 63.1% of the Public Land in the region or 22.7% percent of the entire region).

### **Commonwealth Land**

- 7 Informal Reserves on Commonwealth land total 6,200 hectares and are identified on Map 1(B).
- 8 The Commonwealth agrees to manage those areas of Commonwealth owned land identified in the Singleton Army Training Area as CAR Informal Reserves for the protection of identified CAR values, on the following conditions:
  - Condition 1. That the reserve does not exclude Defence activities that would not compromise the maintenance of the CAR values. Necessary Unexploded Ordnance management will not be impeded by any Informal Reserve declaration or this agreement.
  - Condition 2. That the establishment of the reserve is based on existing Defence management arrangements as prescribed in the Singleton Area Environmental Management Plan (1998) rather than any modification of existing tenures which may be detrimental to Defence's usage of the training areas.
  - Condition 3. That Defence is the sole approving agency for the Defence Environmental Management Plans that prescribe the management regime for the reserve. Defence will however consult with relevant State and Commonwealth agencies on the appropriateness of the management regimes.
  - Condition 4. Consultation on management by Defence of Defence activities in the training areas will be achieved in the consultation process with the State and Local authorities and other stakeholders in the review of the Environmental Management Plan for the Singleton Army Training Area.

- Condition 5. Public comment on changes to the reserve boundary will occur except in circumstances proscribed by national defence protocols.
  - Condition 6. The reserve boundary will delineate the actual CAR values. Defence will establish all operational and environmental management buffer zones around the reserve based on particular land use activities that may occur adjacent to the reserves. The buffers will be identified in the Defence Environmental Management Plans.
- 9 The Department of Defence will identify this CAR Informal Reserve on Commonwealth land on operational and planning maps.
- 10 The CAR Informal Reserves on Commonwealth land will be included in future Environmental Management Plans prepared for the area.

### **Forest Management Zoning**

- 11 New South Wales will, by 30 June 2000, produce a Regional ESFM Plan for the Lower North East region that includes Forest Management Zoning within State forests as described in the document *Forest Management Zoning in State Forests*, (SFNSW 1999). Of particular significance for the conservation of Forest Ecosystems and Old Growth forest are the:
- *Special Protection Zone (FMZ 1)*. These areas are dedicated and managed to maximise the protection of natural and cultural values. Timber harvesting, removal of Forest Products and materials, grazing by domestic stock, gravel/hard rock quarrying and mineral and petroleum exploration are not generally permitted within this zone.
  - *Special Management Zone (FMZ 2)*. These areas are established following public comment and are gazetted and managed for the protection of natural and cultural conservation values where it is not possible or practicable to include them in the Special Protection Zone. Activities not permitted in this zone are similar to the Special Protection Zone except that mineral and petroleum exploration are permitted. Any mining proposal following from exploration will require standard environmental impact assessment and development approval processes.
  - *Harvesting Exclusions Zone (FMZ 3A)*. These are areas where harvesting is excluded but other management and production activities preclude zoning as Special Protection Zone or Special Management Zone. These may be:
    - i) Dedicated leasehold where lease conditions permit activities such as grazing and timber supply for lease fencing etc, and in some cases residency, or
    - ii) Areas identified as important by the Department of Mineral Resources where there are current or imminent petroleum and mineral exploration and/ or mining activities, or

- iii) Other areas which are excluded from harvesting (eg. Net Harvestable Area (NHA) exclusions) but size, boundaries or management practicabilities preclude designation as FMZ 1 or FMZ 2.
- *Special Prescription Zone (FMZ 3B).* These areas are established for the protection and management of identified values whilst also allowing other management and production activities. These activities (which in some cases includes timber, Forest Product and materials extraction) are minimised in their design and implementation to maintain or enhance the values that the area is zoned to protect. A case by case assessment of these areas will be undertaken to determine which forestry activities can occur. The decision is dependent on the specific values involved.

12 New South Wales agrees to establish all Dedicated Reserve and Informal Reserve components of the CAR Reserve System within six months of signing this Agreement.

### **Integrated Forestry Operations Approval**

13 The Integrated Forestry Operations Approval covering the Lower North East region is the principal vehicle by which Environment and Heritage Values that are impracticable to include in reserves can be conserved. The JANIS Reserve Criteria provide for the management of such values through prescriptions. The Integrated Forestry Operations Approval takes account of the extent of reserved habitat, whether the prescriptions are operationally feasible, and the relative conservation status of each species.

### **IDENTIFIED CAR VALUES AND THEIR PROTECTION AFFORDED THROUGH THE RFA**

14 Levels of protection for Forest Ecosystems and Old Growth forest achieved in the CAR Reserve System are shown in Tables 1 and 2 of this Attachment as follows:

- Dedicated Reserves; as described in Clause 4 of this Attachment,
- Informal Reserves; as described in Clause 4 of this Attachment,
- Prescription; includes the areas within the Harvesting Exclusions Zone (Zone 3A), and those areas of the Special Management Zone (Zone 2) that, due to the size or shape, do not meet the Informal Reserve category outlined above.

It should be noted that the Special Prescription Zone (Zone 3B) and the IFOA afford additional protection over that included in the table.

**Table 1. Percentage reservation status of Forest and Non-Forest Ecosystems in the CAR Reserve System in the Lower North East region based on vegetation modelling to establish the pre-1750 extent of Forest Ecosystems in the region<sup>a</sup>**

Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
2 Alpine Gum*	15021	3971	26.4	V	7.7	3.1	0.5	11.3
3 Baileys Stringybark*	301	285	94.7	R	71.1	0.0	0.0	71.1
6 Barrington Dry Shrubby New England Blackbutt-Blue Gum	3667	3227	88.0	-	37.7	3.4	2.7	43.7
7 Barrington Moist Blue Gum-White Mahogany*	46597	32659	70.1	-	5.6	3.6	3.4	12.6
8 Barrington Wet New England Blackbutt-Blue Gum*	68504	45911	67.0	-	10.7	1.7	1.7	14.1
10 Black Sallee	2	2	100.0	R	50.0	0.0	0.0	50.0
11 Blackbutt-Sydney Peppermint-Smoothbarked Apple*	3560	1382	38.8	-	7.0	5.0	0.0	12.0
12 Blue Mountain Ash	1	1	100.0	R	100.0	0.0	0.0	100.0
13 Blue-leaved Stringybark	25	25	100.0	R	97.1	0.0	0.0	97.1
14 Brown Barrell*	1557	814	52.3	R	25.0	0.0	1.2	26.2
15 Brown Barrell-Gum	15290	8711	57.0	-	11.6	8.3	1.6	21.5
16 Bull Oak	5	5	100.0	R	100.0	0.0	0.0	100.0
17 Candlebark*	243	20	8.2	E	0.0	0.8	0.0	0.8
19 Central Mid Elevation Sydney Blue Gum*	92222	40971	44.4	-	5.1	1.1	2.1	8.3
20 Clarence Lowland Needlebark Stringybark	81	81	100.0	R	99.8	0.0	0.0	99.8
21 Lowlands Grey Box*	5917	1219	20.6	V	10.8	0.2	0.0	11.0
22 Coast Cypress Pine	34	34	100.0	R	88.5	0.0	0.0	88.5
23 Coast Range Bloodwood-Mahogany	636	564	88.7	R	82.7	0.0	0.1	82.8
25 Coast Range Spotted Gum-Blackbutt	25	25	100.0	R	100.0	0.0	0.0	100.0
26 Coastal Flooded Gum*	15166	8753	57.7	-	9.1	0.7	2.3	12.1
27 Coastal Sands Blackbutt	27026	17312	64.1	-	29.7	0.2	0.0	29.9
28 Cool Moist Messmate*	14324	6467	45.2	-	9.4	1.2	1.2	11.7
29 Corkwood-Crabapple and Mixed Stringybarks	2891	2293	79.3	-	34.6	1.1	7.8	43.5
30 Diehard Stringybark-New England Blackbutt	51716	43510	84.1	-	42.0	7.1	2.6	51.6
31 Dorrigo White Gum*	6449	1123	17.4	V	0.9	0.1	1.0	1.9
32 Dry Foothills Blackbutt-Turpentine*	48456	33592	69.3	-	8.7	1.0	2.4	12.0
33 Dry Foothills Spotted Gum*	32880	17688	53.8	-	8.7	0.3	0.3	9.3
34 Dry Grassy Blackbutt-Tallowwood*	134865	59390	44.0	-	5.4	0.2	0.4	6.0
35 Dry Grassy Stringybark	133894	97614	72.9	-	16.5	2.0	1.9	20.4
36 Dry Grassy Tallowwood-Grey Gum	264265	178516	67.6	-	12.1	1.9	1.6	15.6
37 Dry Heathy Blackbutt-Bloodwood	4939	2889	58.5	-	27.4	0.9	1.2	29.6
38 Dry Heathy New England Blackbutt	550	528	96.0	R	58.7	6.7	5.0	70.4
39 Dry Heathy New England Stringybarks	15	15	100.0	R	100.0	0.0	0.0	100.0
41 Dry Open New England Blackbutt*	115751	32932	28.5	V	4.1	0.3	1.7	6.1
42 Dry Redgum-Bloodwood-Apple	107232	69509	64.8	-	15.4	1.1	0.4	16.9
43 Dry Silvertop Stringybark-Apple	19265	14918	77.4	-	27.5	1.9	1.3	30.8
44 Dry open Redgum-Broad Leaved Apple	2404	2291	95.3	-	47.6	1.3	0.0	48.9
46 Eastern Red Gums	38	38	100.0	R	59.3	0.0	0.0	59.3
47 Escarpment Redgum*	74953	20498	27.4	V	2.2	0.5	0.5	3.2
48 Escarpment Scribbly Gum-Apple*	27471	7574	27.6	V	6.8	0.2	0.2	7.2
49 Escarpment Tallowwood-Bloodwood	57865	49918	86.3	-	26.3	4.3	2.6	33.1
50 Wet Bangalow-Brushbox	5677	3614	63.7	-	23.4	1.5	2.6	27.5
51 Eurabbie	277	276	99.6	R	85.9	1.7	0.0	87.6
53 Gorge Grey Box	6995	6034	86.3	-	41.1	0.7	1.1	42.9
54 Grey Box-Red Gum-Grey Ironbark*	91248	19838	21.7	V	8.4	1.3	0.3	10.0
55 Foothills Grey Gum-Spotted Gum	3065	2438	79.5	-	14.1	2.4	4.9	21.4
56 Granite Mallee*	7173	4025	56.1	-	12.0	1.2	1.1	14.4

Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
57 Highland Granite Stringybarks*	2481	924	37.2	R	8.6	0.0	1.3	9.9
58 Gorge Grey Gum*	51	51	100.0	R	57.3	5.9	0.0	63.1
60 Grassy New England Blackbutt-Tallowwood-Blue Gum	40573	33586	82.8	-	32.0	2.9	2.6	37.5
63 Grey Gum-Stringybark	23099	16056	69.5	-	22.5	2.8	1.1	26.4
65 Heathy Scribbly Gum	31362	23471	74.8	-	28.1	6.3	1.9	36.3
67 High Elevation Ferny Blackbutt	34934	30899	88.5	-	39.8	3.4	3.4	46.6
68 High Elevation Messmate-Brown Barrell	19641	15974	81.3	-	7.0	15.3	4.0	26.4
69 High Elevation Moist Open Tallowwood-Blue Gum	30029	27141	90.4	-	34.3	4.3	3.1	41.7
70 High Elevation Open Spotted Gum*	21	12	57.1	R	0.4	0.0	2.3	2.7
71 Ironbark	209443	89985	43.0	-	13.4	1.6	1.7	16.7
72 Low Relief Coastal Blackbutt*	23365	10894	46.6	-	5.0	0.3	0.5	5.9
73 Lowland Red Gum*	574	366	63.8	R	20.5	3.9	10.1	34.6
74 Lowlands Scribbly Gum	11527	9724	84.4	-	58.8	0.7	0.4	59.9
76 Coastal Mallee	963	801	83.2	R	75.0	0.6	0.0	75.6
79 Manna Gum-Stringybark*	1180	632	53.6	R	6.9	0.1	0.5	7.5
80 Manna Gum*	13123	3852	29.4	V	5.1	0.6	1.7	7.4
81 Messmate*	60985	20291	33.3	-	4.5	0.5	0.7	5.6
82 Messmate-Mountain Gum Forest*	19288	8537	44.3	-	12.2	0.3	0.9	13.5
83 Mid Elevation Wet Blackbutt	7883	6981	88.6	-	37.7	14.7	4.2	56.6
84 Mid North Coast Wet Brushbox-Tallowwood-Blue Gum	43303	31917	73.7	-	26.8	6.6	3.5	36.9
85 Mixed Moist Hardwood	232	232	100.0	R	7.8	0.7	9.2	17.8
87 Mixed Tableland Stringybark-Gum OpenForest*	20293	7897	38.9	-	7.7	0.9	1.4	10.0
88 Moist Escarpment New England Blackbutt	23267	22579	97.0	-	59.1	10.9	4.7	74.6
89 Moist Foothills Spotted Gum*	12467	7929	63.6	-	12.4	0.5	1.4	14.3
90 Moist Messmate-Gum*	113	78	69.0	R	1.7	0.9	2.1	4.7
91 Moist Open Escarpment White Mahogany	42669	38495	90.2	-	37.7	2.8	2.3	42.8
92 Moist Shrubby Stringybark-Gum*	805	423	52.6	R	17.9	1.0	1.3	20.3
93 Montane Stringybark-Gum*	11191	2567	22.9	V	2.4	0.0	1.7	4.1
94 Mountain Gum-Brown Barrell	3210	3196	99.6	-	91.2	3.2	0.0	94.4
97 Needlebark Stringybark-Large Fruited Blackbutt*	556	502	90.3	R	47.1	0.2	0.2	47.6
98 New England Peppermint	814	656	80.6	R	73.2	0.0	0.0	73.2
99 New England Stringybark-Blakelys Red Gum*	116133	28245	24.3	V	5.4	0.3	0.3	6.0
105 Nymboida Tallowwood-Turpentine*	310	248	80.0	R	5.8	10.9	33.4	50.1
106 Open Coastal Brushbox	103225	64878	62.9	-	12.0	3.7	4.0	19.7
107 Open Messmate-New England Blackbutt	14929	12151	81.4	-	33.3	2.8	1.0	37.1
108 Open Ribbon Gum	34467	24537	71.2	-	16.1	3.8	7.4	27.2
109 Open Shrubby Brushbox-Tallowwood	5033	2887	57.4	-	17.7	0.3	1.3	19.2
110 Open Silvertop Stringybark-Blue Gum	68155	53990	79.2	-	17.4	4.2	3.1	24.7
111 Open Silvertop Stringybark-Tallowwood	2116	1889	89.3	-	36.5	2.5	3.9	42.8
112 Paperbark*	NA	12866	NA	V	NA	NA	NA	NA
113 Peppermint*	51650	13115	25.4	V	7.2	0.3	0.4	7.8
114 Peppermint-Mountain/Manna Gum*	29728	5736	19.3	V	4.2	0.2	0.6	5.0
115 Red Bloodwood	5	5	100.0	R	86.4	0.0	0.0	86.4
116 Red Gum-Stringybark*	38169	12238	32.1	V	0.0	0.0	0.0	0.0
117 Red Mahogany*	65	65	100.0	R	3.1	0.0	0.0	3.1
120 River Oak*	1566	922	58.9	R	26.5	0.2	2.4	29.2
122 Rough-barked Apples*	13990	2636	18.8	V	6.7	0.0	0.1	6.8
123 Roundleaved Gum*	1544	172	11.1	R	0.3	0.0	0.8	1.1
124 Roundleaved Gum-Turpentine*	59	59	100.0	R	57.6	0.0	0.0	57.6



Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
129 Smoothbarked Apple	25437	18751	73.7	-	10.3	2.2	4.1	16.7
130 Smoothbarked Apple-Sydney Peppermint-Stringybark	16521	9517	57.6	-	9.4	0.1	12.9	22.4
131 Snow Gum	6526	4433	67.9	-	46.2	3.7	1.8	51.8
132 Snow Gum -Mountain/Manna Gum*	83882	23120	27.6	V	5.8	3.4	0.7	9.9
133 Snow Gum-Black Sallee	16	16	100.0	R	95.3	0.0	2.8	98.0
134 South Coast Shrubby Grey Gum*	357935	151030	42.2	-	5.0	0.3	0.4	5.7
135 South Coast Tallowwood-Blue Gum*	106137	71217	67.1	-	10.3	1.2	2.6	14.1
137 Southern Wet Sydney Blue Gum	57235	41695	72.9	-	13.4	1.9	4.6	19.8
138 Steel Box/Craven Grey Box	133	125	94.0	R	27.9	0.0	24.8	52.7
139 Stringybark-Apple*	208921	81300	38.9	-	9.1	0.5	0.7	10.3
140 Stringybark-Mallee	671	665	99.1	R	94.2	0.0	0.4	94.7
142 Swamp Mahogany*	4645	2177	46.9	-	8.3	1.6	4.9	14.7
143 Swamp Oak*	21477	4868	22.7	V	5.8	0.4	0.4	6.6
145 Sydney Peppermint-Stringybark	13866	13778	99.4	-	78.5	5.2	0.6	84.3
146 Tallowwood*	875	746	85.3	R	38.4	0.9	0.2	39.5
147 Turpentine	239	235	98.3	R	15.1	0.4	6.6	22.0
148 Very Wet New England Blackbutt-Tallowwood	3218	2867	89.1	-	70.0	4.9	2.3	77.3
149 Mallee-Peppermint mosaic*	6208	3621	58.3	-	10.8	1.0	2.2	13.9
153 Wet Coastal Tallowwood-Brushbox*	15901	10245	64.4	-	3.7	0.7	1.0	5.3
154 Wet Flooded Gum-Tallowwood*	9393	6161	65.6	-	7.4	0.8	2.9	11.1
155 Wet Foothills Blackbutt-Turpentine	54288	50264	92.6	-	18.9	6.6	3.8	29.3
156 Wet New England Blackbutt-Silvertop Stringybark	18005	15604	86.7	-	32.3	3.1	2.2	37.6
157 Wet Shrubby Brushbox-Tallowwood	35601	30589	85.9	-	34.0	7.0	6.2	47.2
162 Whitetopped Box*	1743	967	55.5	R	18.8	0.8	5.1	24.7
163 Yellow Box-Blakely's Red Gum*	28088	2696	9.6	E	0.1	0.0	0.0	0.1
168 Rainforest*	NA	256326	NA	R	NA	NA	NA	NA
174 Orange Gum-Tumbledown Gum-Apple*	33343	10169	30.5	V	0.4	0.3	0.0	0.7
175 Orange Gum-New England Blackbutt-Tumbledown Gum*	64031	23572	36.8	V	0.3	0.6	0.0	0.9
176 Orange Gum-Ironbark*	34097	6636	19.5	V	0.0	0.0	0.0	0.0
177 Outcrop Orange Gum-New England Blackbutt*	15949	3170	19.9	V	0.5	0.1	0.0	0.5
178 Outcrop Black Cypress-Tumbledown Gum*	1492	659	44.2	R	0.0	0.0	0.0	0.0
179 Yellow Box-Broad-leaved Stringybark*	1026	273	26.6	R	1.0	0.0	0.0	1.0
182 Apple-Black Cypress*	46374	14635	31.6	V	0.2	0.0	0.0	0.2
183 Red Gum-Apple	8088	4065	50.3	-	27.5	0.4	0.9	28.8
184 Tumbledown Gum-Ironbark*	527	160	30.4	R	0.0	0.0	0.0	0.0
186 Open Tumbledown Gum-Black Cypress-Orange Gum*	43246	7959	18.4	V	0.2	0.1	0.0	0.3
189 Silverleaved Ironbark-Cypress*	6649	2007	30.2	V	0.0	0.0	0.0	0.0
190 Yellow Box-Grey Box-Red Gum*	35934	7724	21.5	V	0.6	0.0	0.0	0.6
195 Apple-Manna Gum woodland*	36588	6638	18.1	V	0.3	0.1	0.0	0.4
196 Broad-leaved Stringybark-Apple Box*	55280	10442	18.9	V	0.3	0.1	0.0	0.4
197 Broad-leaved Stringybark*	8827	1346	15.3	V	0.5	0.0	0.0	0.5
198 Silvertop Stringybark*	5634	1501	26.6	V	1.2	0.4	0.0	1.6
200 Broad-leaved Stringybark-Ribbon Gum*	25	7	28.0	R	4.0	0.0	0.0	4.0
202 Peppermint-Apple-Turpentine	37165	36556	98.4	-	68.3	10.6	1.4	80.3
203 Grey Gum-Stringybark-Apple	38398	37492	97.6	-	80.7	3.2	0.1	84.0
204 Grey Gum - Scribbly Gum	18966	18871	99.5	-	94.9	1.2	0.0	96.2
205 Peppermint-Silvertop Ash-Stringybark	1346	1309	97.3	-	75.5	0.0	0.0	75.5
206 Apple-Grey Gum-Turpentine	30010	28264	94.2	-	39.9	7.2	4.4	51.5

Forest Ecosystems <sup>b</sup>	Area		Percent Remaining	Status <sup>c</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>d</sup>	Prescription <sup>e</sup>	Total
207 Hunter Spotted Gum-Ironbark*	67295	25740	38.3	-	2.0	3.7	0.7	6.4
208 Hunter Roughbarked Apple- Red Gum*	66023	8876	13.4	V	1.0	0.9	0.1	2.0
209 Yellow Bloodwood-Stringybark	54429	52329	96.1	-	62.7	3.5	1.4	67.6
210 Yellow Bloodwood-Ironbark	32597	29520	90.6	-	51.9	5.9	0.3	58.1
211 Apple-Turpentine	22208	21680	97.6	-	55.3	26.0	0.0	81.3
212 Yellow Bloodwood-Narrowleaved Apple	59334	57711	97.3	-	64.9	11.3	0.1	76.2
213 Stringybark-Scribbly Gum Woodland	9288	9196	99.0	-	96.3	0.7	0.0	97.0
214 Brown Bloodwood-Dwyers Redgum	2051	1862	90.8	-	56.5	0.0	0.0	56.5
215 Brown Bloodwood-Ironbark	12308	11650	94.7	-	90.2	0.5	0.0	90.7
216 Sandstone Ironbark	14298	12427	86.9	-	61.6	0.0	0.0	61.6
217 Grey Gum-Stringybark (Hunter)	31103	30921	99.4	-	96.6	0.1	0.0	96.7
218 Ironbark-Stringybark	17677	15843	89.6	-	35.4	0.0	0.0	35.4
219 Brown Bloodwood	15182	8905	58.7	-	27.7	0.0	0.0	27.7
220 Yellow Bloodwood-Stringybark-Narrowleaved Apple	40270	39881	99.0	-	70.1	12.4	0.0	82.5
221 Apple-Red Bloodwood-Peppermint-Turpentine	26788	23923	89.3	-	59.3	6.3	1.2	66.8
222 Stringybark-Mallee Woodland	7107	7084	99.7	-	96.1	0.5	0.0	96.6
223 Dwarf Apple Forest	20932	20238	96.7	-	57.1	26.4	0.1	83.5
224 Coastal Apple-Stringybark-Scribbly Gum*	2370	1070	45.2	-	0.0	1.8	0.2	1.9
225 Wyong Apple-Scribbly Gum*	5905	3768	63.8	-	0.0	1.0	0.7	1.6
226 Mahogany-Banksia Heath	13310	9830	73.9	-	45.5	3.1	0.1	48.7
227 Turpentine-Myrtle	15805	15745	99.6	-	72.6	3.2	1.0	76.8
228 Turpentine-Oak-Myrtle	15234	13833	90.8	-	55.2	2.3	1.7	59.2
229 Roughbarked Apple-Forest Oak	40244	33615	83.5	-	49.0	4.9	0.2	54.1
230 Watagan Blackbutt-Blue Gum	17059	13664	80.1	-	11.2	3.4	3.5	18.1
231 Watagan Blue Gum	17524	16218	92.6	-	14.8	11.9	4.3	30.9
232 Watagan Spotted Gum-Ironbark-White Mahogany*	9232	8609	93.3	-	3.7	4.5	4.0	12.2
233 Roundleaved Gum - Turpentine	10605	8565	80.8	-	21.7	4.4	1.2	27.3
234 Grey Gum - Grey Myrtle	36947	35600	96.4	-	53.9	6.1	2.1	62.0
235 Wet Roundleaved Gum Forest	2710	2637	97.3	-	80.2	1.0	0.3	81.5
236 Bangalay-Blue Gum	16055	14197	88.4	-	27.2	27.2	0.0	54.4
237 Wollemi Manna Gum	2285	2260	98.9	-	94.1	0.5	0.0	94.6
238 Tablelands Grey Gum-Scribbly Gum	218	210	96.3	R	96.3	0.0	0.0	96.3
239 Wollemi Roughbarked Apple	13174	6021	45.7	-	15.9	3.9	0.0	19.9
240 Roughbarked Apple-Redgum*	331	316	95.5	R	29.6	4.0	0.0	33.6
241 Ironbark-Redgum*	13378	2550	19.1	V	1.6	0.0	0.0	1.6
242 Hunter Grey Box	16739	12040	71.9	-	31.6	1.8	0.0	33.4
243 Grey Gum-Mugga Ironbark	3559	2988	84.0	-	57.1	0.0	0.0	57.1
244 White Box-Grey Gum	2419	1818	75.2	-	36.1	5.2	3.6	44.9
245 Grey Box	5832	1024	17.6	V	10.4	0.0	0.0	10.4
246 Scribbly Gum-Redgum Woodland	8259	3141	38.0	-	20.0	0.0	0.0	20.0
247 Coastal Bastard Mahogany Forest*	32848	18002	54.8	-	7.1	3.2	0.6	10.9
248 Apple-Forest Oak	12254	7508	61.3	-	17.8	1.3	0.2	19.2
249 White Box-Ironbark-Red Gum*	156637	26170	16.7	V	2.3	0.2	0.0	2.5
250 Banksia Heath-Scribbly Gum-Apple*	21544	10795	50.1	-	0.3	1.5	0.3	2.1

Non-Forest Ecosystems	Area		Percent Remaining	Status <sup>b</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
5 Banksia*	8786	4196	47.8	V	16.0	0.0	0.0	16.1
18 Casuarina Woodland*	NA	362	NA	R	NA	NA	NA	NA
64 Heath*	NA	14286	NA	R	NA	NA	NA	NA
66 Herbfeld and Fjaeldmark	NA	2	NA	R	NA	NA	NA	NA

Non-Forest Ecosystems	Area		Percent Remaining	Status <sup>b</sup>	Percent of Forest Ecosystem (pre-1750) extent in the CAR Reserve System			
	Pre 1750 (ha)	Current (ha)			Dedicated Reserves	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
77 Mangrove*	NA	1001	NA	R	NA	NA	NA	NA
96 Natural Grassland	NA	138	NA	R	NA	NA	NA	NA
121 Rock	NA	6576	NA	-	NA	NA	NA	NA
125 Saltbush*	187	200	107.0	R	0.0	0.5	0.1	0.5
141 Swamp	NA	9130	NA	R	NA	NA	NA	NA
169 Scrub	NA	3073	NA	V	NA	NA	NA	NA
199 Riparian Shrubland*	6978	1172	16.8	V	0.1	0.1	0.0	0.2

#### NOTES ACCOMPANYING TABLE 1

- The figures shown in this table are based on modelled information mapped at a scale of 1:25 000 derived during the pre-1750 analysis of vegetation types in the Upper North East and Lower North East regions, and are therefore only approximate. Those ecosystems with 'NA' listed under Pre-1750 (ha) were not modelled to determine their pre-1750 extent (refer to CRA project report NA35/EH).
- Forest Ecosystems are as described in the documents *Forest Ecosystem Classification and Mapping for the Upper and Lower North East CRA Regions* CRA Unit, Northern Zone National Parks and Wildlife Service. (Project NA35/EH January 1999), and *Forest Ecosystem Classification and Mapping for the Hunter Sub-Region in the Lower North East Comprehensive Regional Assessment*. Project Numbers NL 10/EH & NL 02/EH (March 1999).
- The status is based on: Rare (R) which has a total current area below 1000 hectares and a target of 100% of its current distribution. Endangered (E) which has < 10% remaining and a target of 100% of its current distribution. Vulnerable (V) which has between 10-30% remaining and a target of 60% of its current distribution. Some values were given their rare, endangered or vulnerable status due to other factors such as range of distribution, patch size and expert opinion on vulnerability. All remaining Forest Ecosystems have a target of 15% of their pre-1750 distribution.
- Informal Reserve includes Special Management Zones that are > 40ha and > 200m wide, or that are adjacent to Dedicated Reserves.
- Tabulated prescriptions include those elements of the Special Management Zone that, due to size or shape, do not meet the Informal Reserve Category outlined above, and the Harvesting Exclusions Zone.
- These Forest Ecosystems have been identified as priorities for protection on Private Land (see Attachment 2).

NA Pre-1750 distribution was not able to be predicted.

**Table 2. Conservation of Candidate Old Growth forest in the CAR Reserve System in the Lower North East region<sup>a</sup>**

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Old Growth <sup>b</sup>	Area Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
2 OG Alpine Gum	3971	23.5	932	60.1	9.5	2.7	72.3
3 OG Baileys Stringybark	285	43.5	124	70.8	0.0	0.0	70.8
6 OG Barrington Dry Shrubby New England Blackbutt-Blue Gum	3227	52.0	1676	51.4	6.4	4.7	62.4
7 OG Barrington Moist Blue Gum-White Mahogany	32659	7.9	2582	24.4	6.5	14.4	45.3
8 OG Barrington Wet New England Blackbutt-Blue Gum	45911	18.8	8636	39.9	7.7	5.0	52.6
10 OG Black Sallee	2	32.0	1	100.0	0.0	0.0	100.0
11 OG Blackbutt-Sydney Peppermint-Smoothbarked Apple	1382	24.9	344	59.9	40.1	0.0	100.0
13 OG Blue-leaved Stringybark	25	95.7	24	97.0	0.0	0.0	97.0
14 OG Brown Barrell	814	17.8	145	57.5	0.0	10.4	68.0
15 OG Brown Barrell-Gum	8711	20.4	1775	50.9	4.9	7.2	63.0
17 OG Candlebark	20	6.4	1	0.0	0.0	0.0	0.0
19 OG Central Mid Elevation Sydney Blue Gum	40971	14.1	5775	37.3	7.2	9.8	54.3
20 OG Clarence Lowland Needlebark Stringybark	81	18.6	15	100.0	0.0	0.0	100.0
21 OG Lowlands Grey Box	1219	60.7	740	62.2	0.1	0.0	62.3
23 OG Coast Range Bloodwood-Mahogany	564	21.4	121	95.6	0.0	0.6	96.2
25 OG Coast Range Spotted Gum-Blackbutt	25	27.8	7	100.0	0.0	0.0	100.0
26 OG Coastal Flooded Gum	8753	7.0	610	31.7	11.1	4.6	47.5
27 OG Coastal Sands Blackbutt	17312	45.0	7781	73.6	0.2	0.0	73.9
28 OG Cool Moist Messmate	6467	13.9	901	63.0	5.3	7.7	75.9
29 OG Corkwood-Crabapple and Mixed Stringybarks	2293	38.0	872	62.8	1.1	7.7	71.6
30 OG Diehard Stringybark-New England Blackbutt	43510	56.8	24726	63.0	9.8	4.0	76.8
31 OG Dorrigo White Gum	1123	18.0	202	20.8	1.5	13.4	35.8
32 OG Dry Foothills Blackbutt-Turpentine	33592	16.3	5481	33.3	5.1	10.3	48.7
33 OG Dry Foothills Spotted Gum	17688	30.2	5334	21.1	1.2	1.6	23.9
34 OG Dry Grassy Blackbutt-Tallowwood	59390	9.3	5504	31.6	2.1	4.9	38.5
35 OG Dry Grassy Stringybark	97614	46.6	45446	37.3	3.0	3.2	43.5
36 OG Dry Grassy Tallowwood-Grey Gum	178516	19.1	34124	37.2	11.8	5.9	54.9
37 OG Dry Heathy Blackbutt-Bloodwood	2889	39.6	1144	67.3	3.5	2.3	73.1
38 OG Dry Heathy New England Blackbutt	528	52.8	279	86.5	3.5	8.5	98.6
39 OG Dry Heathy New England Stringybarks	15	31.2	5	100.0	0.0	0.0	100.0
41 OG Dry Open New England Blackbutt	32932	38.8	12786	25.9	1.4	13.5	40.9
42 OG Dry Redgum-Bloodwood-Apple	69509	38.8	26960	48.3	1.9	0.9	51.1
43 OG Dry Silvertop Stringybark-Apple	14918	63.7	9497	47.0	2.2	0.6	49.8
44 OG Dry open Redgum-Broad Leaved Apple	2291	90.0	2061	52.0	1.3	0.0	53.4
46 OG Eastern Red Gums	38	29.3	11	10.4	0.0	0.0	10.4

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Old Growth <sup>b</sup>	Area Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
47 OG Escarpment Redgum	20498	27.2	5582	15.9	4.0	3.7	23.6
48 OG Escarpment Scribbly Gum-Apple	7574	41.9	3174	51.7	1.0	0.0	52.7
49 OG Escarpment Tallowwood-Bloodwood	49918	44.1	21998	47.6	9.4	4.8	61.7
50 OG Wet Bangalow-Brushbox	3614	43.1	1557	44.2	1.9	2.0	48.0
51 OG Eurabbie	276	76.9	212	87.5	1.4	0.0	88.9
53 OG Gorge Grey Box	6034	85.5	5156	51.8	0.8	0.7	53.3
54 OG Grey Box-Red Gum-Grey Ironbark	19838	39.5	7837	85.2	0.3	0.4	85.9
55 OG Foothills Grey Gum-Spotted Gum	2438	28.6	698	13.0	10.0	21.0	44.0
56 OG Granite Mallee	4025	39.4	1586	30.4	2.5	3.1	36.1
57 OG Highland Granite Stringybarks	924	41.5	383	43.2	0.2	8.1	51.5
58 OG Gorge Grey Gum	51	95.3	49	56.1	6.2	0.0	62.3
60 OG Grassy New England Blackbutt-Tallowwood-Blue Gum	33586	46.8	15722	58.6	5.4	4.1	68.1
63 OG Grey Gum-Stringybark	16056	67.1	10768	43.7	5.2	1.1	50.0
65 OG Heathy Scribbly Gum	23471	38.2	8960	78.4	16.0	3.4	97.8
67 OG High Elevation Ferny Blackbutt	30899	37.0	11441	63.6	5.0	5.3	73.9
68 OG High Elevation Messmate-Brown Barrell	15974	9.6	1538	25.1	32.7	23.1	80.8
69 OG High Elevation Moist Open Tallowwood-Blue Gum	27141	43.1	11698	58.8	5.4	3.0	67.2
70 OG High Elevation Open Spotted Gum	12	15.0	2	0.0	0.0	0.0	0.0
71 OG Ironbark	89985	33.2	29876	71.6	5.6	1.4	78.6
72 OG Low Relief Coastal Blackbutt	10894	5.8	633	16.8	5.7	2.9	25.4
73 OG Lowland Red Gum	366	33.4	122	44.5	16.2	21.6	82.3
74 OG Lowlands Scribbly Gum	9724	50.2	4881	96.5	0.5	0.5	97.5
76 OG Coastal Mallee	801	15.1	121	89.1	0.0	0.0	89.1
79 OG Manna Gum-Stringybark	632	20.8	131	51.1	0.0	2.6	53.8
80 OG Manna Gum	3852	14.5	557	42.6	4.8	14.9	62.3
81 OG Messmate	20291	9.4	1912	52.3	2.6	9.1	63.9
82 OG Messmate-Mountain Gum Forest	8537	16.6	1416	84.4	0.6	3.8	88.7
83 OG Mid Elevation Wet Blackbutt	6981	29.5	2058	54.3	24.8	7.6	86.7
84 OG Mid North Coast Wet Brushbox-Tallowwood-Blue Gum	31917	30.9	9850	53.7	11.2	6.8	71.7
85 OG Mixed Moist Hardwood	232	0.0	0	0.0	0.0	0.0	0.0
87 OG Mixed Tableland Stringybark-Gum OpenForest	7897	16.0	1259	54.7	6.6	8.2	69.5
88 OG Moist Escarpment New England Blackbutt	22579	57.4	12954	72.6	9.9	6.4	88.8
89 OG Moist Foothills Spotted Gum	7929	8.3	657	13.9	6.4	21.2	41.5
90 OG Moist Messmate-Gum	78	35.6	28	6.8	3.6	1.3	11.7
91 OG Moist Open Escarpment White Mahogany	38495	49.4	19026	60.9	3.2	3.2	67.2
92 OG Moist Shrubby Stringybark-Gum	423	24.1	102	46.4	6.2	3.8	56.3
93 OG Montane Stringybark-Gum	2567	18.7	480	37.0	0.0	27.3	64.3
94 OG Mountain Gum-Brown Barrell	3196	36.3	1159	97.6	0.0	0.0	97.6
97 OG Needlebark Stringybark-Large Fruited Blackbutt	502	18.5	93	53.7	0.5	0.0	54.1
98 OG New England Peppermint	656	81.3	533	97.3	0.0	0.0	97.3
99 OG New England Stringybark-Blakelys Red Gum	28245	44.2	12469	41.8	0.9	0.7	43.5
105 OG Nymboida Tallowwood-Turpentine	248	25.4	63	7.0	13.2	54.0	74.2

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Old Growth <sup>b</sup>	Area Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
106 OG Open Coastal Brushbox	64878	34.3	22254	23.8	8.9	6.0	38.7
107 OG Open Messmate-New England Blackbutt	12151	27.2	3302	80.2	7.7	2.8	90.7
108 OG Open Ribbon Gum	24537	36.6	8987	41.4	8.3	20.9	70.6
109 OG Open Shrubby Brushbox-Tallowwood	2887	32.7	944	43.6	1.2	1.1	45.9
110 OG Open Silvertop Stringybark-Blue Gum	53990	23.7	12786	49.8	8.3	8.1	66.2
111 OG Open Silvertop Stringybark-Tallowwood	1889	38.5	727	61.0	4.5	1.5	67.0
113 OG Peppermint	13115	40.5	5311	49.7	0.8	2.9	53.3
114 OG Peppermint-Mountain/Manna Gum	5736	35.8	2054	49.6	0.1	5.3	55.0
115 OG Red Bloodwood	5	87.2	4	95.4	0.0	0.0	95.4
116 OG Red Gum-Stringybark	12238	32.1	3923	0.1	0.2	0.0	0.3
122 OG Rough-barked Apples	2636	34.0	896	49.1	0.0	0.1	49.3
123 OG Roundleaved Gum	172	17.3	30	10.1	0.0	21.7	31.8
124 OG Roundleaved Gum-Turpentine	59	85.9	51	51.7	0.0	0.0	51.7
129 OG Smoothbarked Apple	18751	7.5	1412	81.3	1.4	12.6	95.3
130 OG Smoothbarked Apple-Sydney Peppermint-Stringybark	9517	21.1	2009	4.1	0.0	33.9	38.1
131 OG Snow Gum	4433	45.9	2035	91.7	1.6	2.2	95.5
132 OG Snow Gum -Mountain/Manna Gum	23120	29.0	6698	46.1	1.2	1.1	48.4
133 OG Snow Gum-Black Sallee	16	56.5	9	100.0	0.0	0.0	100.0
134 OG South Coast Shrubby Grey Gum	151030	7.5	11329	18.6	7.8	5.8	32.2
135 OG South Coast Tallowwood-Blue Gum	71217	14.6	10374	30.6	7.9	7.6	46.0
137 OG Southern Wet Sydney Blue Gum	41695	15.9	6613	44.6	6.1	13.2	63.9
138 OG Steel Box/Craven Grey Box	125	16.3	20	0.0	0.0	42.8	42.8
139 OG Stringybark-Apple	81300	49.1	39882	40.9	1.2	1.6	43.7
140 OG Stringybark-Mallee	665	30.2	201	92.3	0.0	1.3	93.5
142 OG Swamp Mahogany	2177	13.1	285	42.8	4.0	3.7	50.5
145 OG Sydney Peppermint-Stringybark	13778	67.0	9225	92.4	0.7	0.0	93.2
146 OG Tallowwood	746	79.3	591	50.4	1.3	0.3	52.1
147 OG Turpentine	235	21.5	51	42.0	0.0	0.0	42.0
148 OG Very Wet New England Blackbutt-Tallowwood	2867	55.7	1596	84.4	6.9	3.5	94.7
149 OG Mallee-Peppermint mosaic	3621	33.6	1216	35.4	1.8	7.3	44.4
153 OG Wet Coastal Tallowwood-Brushbox	10245	5.2	529	26.8	1.8	9.0	37.7
154 OG Wet Flooded Gum-Tallowwood	6161	4.1	252	33.8	2.9	8.1	44.9
155 OG Wet Foothills Blackbutt-Turpentine	50264	16.5	8282	42.0	11.8	9.7	63.5
156 OG Wet New England Blackbutt-Silvertop Stringybark	15604	28.4	4437	72.3	7.9	1.3	81.5
157 OG Wet Shrubby Brushbox-Tallowwood	30589	43.2	13214	45.7	8.4	4.5	58.6
162 OG Whitetopped Box	967	27.0	261	75.0	1.7	3.8	80.4
163 OG Yellow Box-Blakely's Red Gum	2696	20.2	543	1.2	0.0	0.0	1.2
174 OG Orange Gum-Tumbledown Gum-Apple	10169	46.7	4753	2.4	1.8	0.0	4.1
175 OG Orange Gum-New England Blackbutt-Tumbledown Gum	23572	38.1	8983	1.3	4.3	0.0	5.5
176 OG Orange Gum-Ironbark	6636	18.5	1230	0.1	0.0	0.0	0.1

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Old Growth <sup>b</sup>	Area Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
177 OG Outcrop Orange Gum-New England Blackbutt	3170	26.1	828	4.5	0.0	0.0	4.5
178 OG Outcrop Black Cypress-Tumbledown Gum	659	39.1	257	0.0	0.0	0.0	0.0
179 OG Yellow Box-Broad-leaved Stringybark	273	36.9	101	6.2	0.0	0.0	6.2
182 OG Apple-Black Cypress	14635	25.2	3690	1.1	0.1	0.0	1.2
183 OG Red Gum-Apple	4065	43.8	1778	84.9	0.1	0.1	85.1
184 OG Tumbledown Gum-Ironbark	160	25.3	40	0.0	0.0	0.0	0.0
186 OG Open Tumbledown Gum-Black Cypress-Orange Gum	7959	26.0	2069	1.5	0.7	0.0	2.2
189 OG Silverleaved Ironbark-Cypress	2007	28.2	565	0.0	0.0	0.0	0.0
190 OG Yellow Box-Grey Box-Red Gum	7724	21.4	1653	11.0	0.0	0.0	11.0
195 OG Apple-Manna Gum woodland	6638	31.4	2086	2.8	1.7	0.0	4.4
196 OG Broad-leaved Stringybark-Apple Box	10442	27.0	2819	3.1	0.6	0.0	3.7
197 OG Broad-leaved Stringybark	1346	23.9	322	4.7	0.0	0.0	4.7
198 OG Silvertop Stringybark	1501	26.5	397	9.2	0.0	0.0	9.2
200 OG Broad-leaved Stringybark-Ribbon Gum	7	30.3	2	47.2	0.0	0.0	47.2
202 OG Peppermint-Apple-Turpentine	36556	64.7	23654	90.5	8.5	0.3	99.3
203 OG Grey Gum-Stringybark-Apple	37492	73.4	27511	97.4	1.5	0.0	99.0
204 OG Grey Gum - Scribbly Gum	18871	82.6	15587	99.8	0.1	0.0	99.8
205 OG Peppermint-Silvertop Ash-Stringybark	1309	67.3	881	100.0	0.0	0.0	100.0
206 OG Apple-Grey Gum-Turpentine	28264	42.6	12030	84.1	12.9	1.1	98.0
207 OG Hunter Spotted Gum-Ironbark	25740	0.1	32	11.3	38.0	45.6	94.9
208 OG Hunter Roughbarked Apple-Red Gum	8876	7.4	655	77.9	20.4	0.0	98.3
209 OG Yellow Bloodwood-Stringybark	52329	55.6	29118	96.6	1.5	0.3	98.4
210 OG Yellow Bloodwood-Ironbark	29520	49.9	14733	90.9	8.8	0.2	99.9
211 OG Apple-Turpentine	21680	69.1	14990	69.3	30.6	0.0	100.0
212 OG Yellow Bloodwood-Narrowleaved Apple	57711	65.1	37582	85.7	14.1	0.0	99.8
213 OG Stringybark-Scribbly Gum Woodland	9196	85.0	7814	99.9	0.0	0.0	99.9
214 OG Brown Bloodwood-Dwyers Redgum	1862	67.7	1261	79.4	0.0	0.0	79.4
215 OG Brown Bloodwood-Ironbark	11650	83.3	9705	99.5	0.0	0.0	99.5
216 OG Sandstone Ironbark	12427	60.8	7560	99.9	0.0	0.0	99.9
217 OG Grey Gum-Stringybark	30921	85.0	26277	99.2	0.0	0.0	99.2
218 OG Ironbark-Stringybark	15843	65.5	10373	50.4	0.0	0.0	50.4
219 OG Brown Bloodwood	8905	50.8	4521	78.7	0.0	0.0	78.7
220 OG Yellow Bloodwood-Stringybark-Narrowleaved Apple	39881	65.6	26154	84.9	15.1	0.0	100.0
221 OG Apple-Red Bloodwood-Peppermint-Turpentine	23923	59.2	14168	93.5	5.6	0.6	99.7
222 OG Stringybark-Mallee Woodland	7084	83.9	5940	99.9	0.0	0.0	99.9
223 OG Dwarf Apple Forest	20238	72.1	14583	66.6	31.3	0.0	97.9
225 OG Wyong Apple-Scribbly Gum	3768	0.7	27	0.0	0.0	100.0	100.0
226 OG Mahogany-Banksia Heath	9830	54.0	5312	97.9	2.0	0.1	100.0
227 OG Turpentine-Myrtle	15745	64.3	10115	97.8	0.7	0.5	99.1
228 OG Turpentine-Oak-Myrtle	13833	62.6	8658	82.3	0.1	0.6	83.0
229 OG Roughbarked Apple-Forest Oak	33615	52.5	17641	94.2	3.2	0.0	97.4

Forest Ecosystem	Area of Forest Ecosystem (ha)	Percent of Forest Ecosystem as Old Growth <sup>b</sup>	Area Old Growth (ha)	Percent of Candidate Old Growth forest in the CAR Reserve System			
				Dedicated Reserve	Informal Reserve <sup>c</sup>	Prescription <sup>d</sup>	Total
230 OG Watagan Blackbutt-Blue Gum	13664	4.4	605	44.0	12.3	23.4	79.7
231 OG Watagan Blue Gum	16218	3.2	524	51.7	16.7	23.4	91.7
232 OG Watagan Spotted Gum-Ironbark-White Mahogany	8609	2.4	202	36.9	4.0	43.7	84.6
233 OG Roundleaved Gum - Turpentine	8565	22.4	1922	96.2	2.2	0.9	99.3
234 OG Grey Gum - Grey Myrtle	35600	47.8	17002	96.9	0.5	0.9	98.3
235 OG Wet Roundleaved Gum Forest	2637	73.0	1924	97.9	1.2	0.4	99.4
236 OG Bangalay-Blue Gum	14197	49.0	6961	53.2	45.7	0.0	98.9
237 OG Wollemi Manna Gum	2260	83.1	1878	100.0	0.0	0.0	100.0
238 OG Tablelands Grey Gum-Scribbly Gum	210	92.4	194	100.0	0.0	0.0	100.0
239 OG Wollemi Roughbarked Apple	6021	34.4	2073	79.0	20.7	0.0	99.7
240 OG Roughbarked Apple-Redgum	316	28.3	89	89.9	10.1	0.0	100.0
241 OG Ironbark-Redgum	2550	31.0	789	21.9	0.0	0.0	21.9
242 OG Hunter Grey Box	12040	48.6	5853	74.1	0.7	0.0	74.8
243 OG Grey Gum-Mugga Ironbark	2988	57.4	1716	99.9	0.0	0.0	99.9
244 OG White Box-Grey Gum	1818	34.5	627	83.5	1.2	0.0	84.6
245 OG Grey Box	1024	50.3	515	100.0	0.0	0.0	100.0
246 OG Scribbly Gum-Redgum Woodland	3141	44.3	1393	100.0	0.0	0.0	100.0
247 OG Coastal Bastard Mahogany Forest	18002	14.9	2677	70.2	27.1	2.7	100.0
248 OG Apple-Forest Oak	7508	24.8	1863	96.5	2.6	0.6	99.7
249 OG White Box-Ironbark-Red Gum	26170	19.0	4971	44.3	0.4	0.0	44.7
250 OG Banksia Heath-Scribbly Gum-Apple	10795	0.9	94	20.1	63.0	15.0	98.1

#### NOTES ACCOMPANYING TABLE 2

- The figures shown in this table are based on modelled information mapped at a scale of 1:25 000 derived during the pre-1750 analysis of vegetation types in the Upper North East and Lower North East regions, and are therefore only approximate.
- Old growth Forest Ecosystems are referred to as Candidate old growth because time constraints and availability of data sets did not allow for the full assessment of values characteristic of old growth forests (eg. some structural, compositional and functional characteristics and aesthetic values). Candidate old growth forest was identified primarily by aerial photographic interpretation, and information on disturbance from logging and fire. Further information is available in the report *Old-Growth Forest Related Projects – UNE / LNE CRA Regions*. National Parks and Wildlife Service (Part of Project NA28/EHFebruary 1999).
- Informal Reserve includes Special Management Zones that are > 40ha and > 200m wide, or that are adjacent to Dedicated Reserves.
- Tabulated prescriptions include those elements of the Special Management Zone that, due to the size or shape, do not meet the Informal Reserve Category outlined above, and the Harvesting Exclusions Zone.

## Wilderness

15 84% of Wilderness, as defined in the JANIS Reserve Criteria (ie National Wilderness Inventory (Lesslie and Maslen 1995) minimum rating 12 in patches greater than 8000ha), in the Lower North East region is protected within Dedicated Reserves under this Agreement. Of the Wilderness outside formal reserve, 60% is on freehold or leasehold land. Informal Reserves provide a level of additional protection for Wilderness.



## **Additional Protection for Forest Ecosystems**

- 16 The Integrated Forestry Operations Approval for the Lower North East Region provides additional protection for Rare non-commercial Forest Types as in *Research Note No. 17 Forest Types in New South Wales* (Forestry Commission of New South Wales, Sydney 1989). These Forest Types include:

30	Swamp mahogany
31	Paperbark
32	Swamp Oak
51	Dunn's white gum
52	Round-leaved gum
63	Woollybutt
98	Dorrigo white gum
101	Blue mountain ash
105	Smoothbarked-apple
119	Scribbly gum – Bloodwood
129	Rough-barked apple
130	Red bloodwood
131	Peppermint - Mountain / Manna gum

## **Rainforest Protection**

- 17 The Integrated Forestry Operations Approval for the Lower North East Region provides additional protection for rainforest as defined in the IFOA including any area of land within 20m of the boundaries of warm temperate rainforest.

## **Management of CAR Values**

- 18 Management plans identified in Section 2.3 of the New South Wales *Lower North East Region Forest Agreement* for Dedicated Reserve and Informal Reserve elements of the CAR Reserve System will clearly identify the CAR Values and the actions being taken in each reserve to appropriately manage and conserve those values.
- 19 As an integral component of managing CAR values New South Wales agrees to implement systematic and target fauna and flora surveys in dedicated and Informal Reserves to complement surveys carried out under the IFOAs. The extent of survey work undertaken will be subject to available funding.

**ATTACHMENT 2**  
**(clauses, 56, 59, 66 and Attachments 1(A) and 1(B))**

**PRIVATE LAND CONSERVATION**

- 1 Both Parties agree that CAR Values on Private Land are complementary to the CAR Reserve System identified on Public Land.
- 2 Both Parties agree that in complementing the CAR Reserve System on Public Land, conservation on Private Land can only be voluntary.
- 3 Both Parties agree that the following objectives should apply to the voluntary protection of CAR Values on Private Land:
  - to seek to maximise protection of agreed CAR Values;
  - that the processes are clearly understood by the community;
  - that real partnerships are developed;
  - that the outcomes will provide benefits for all parties; and
  - that actions must be strategic and integrated.
- 4 Both Parties agree that the most important elements in any mechanism designed to achieve conservation management on private forested land in the Upper North East and Lower North East regions are:
  - effectiveness of the outcomes;
  - ownership of the process;
  - simplicity of the process;
  - clarity of roles of the participants;
  - certainty of the outcomes;
  - flexibility in the approaches adopted; and
  - equity between participants.
- 5 Both Parties agree that a range of conservation mechanisms are applicable to Private Land. These include:
  - Voluntary Conservation Agreements;
  - landholder initiated agreements;
  - noncontractual voluntary agreements;

- fee for service;
  - voluntary acquisition;
  - fixed term common law contract;
  - in perpetuity common law contract;
  - community grants;
  - property management plans;
  - voluntary land and water management plans; and
  - other mechanisms that may be developed to suit individual landholders or situations.
- 6 Both Parties agree that capacity building within the private landholder estate to support individual and community decision making are prerequisites to the voluntary processes outlined above.
- 7 Consistent with clause 59 priority Forest Ecosystems for voluntary conservation on Private Land have been listed and prioritised for the Upper North East Region in Table 1 and the Lower North East Region in Table 2.
- 8 NSW will establish Regional Vegetation Committees in the Upper North East and Lower North East regions and provide them with funding to provide for the conservation of Forest Ecosystems that are rare or non-existent on Public Lands.

**Table 1 Private Land priorities for the Upper North East CAR Reserve System**

Priority for voluntary protection of Forest Ecosystems		
<i>Forests</i>		
2 Alpine Gum	73 Lowland Red Gum	143 Swamp Oak
15 Brown Barrell-Gum	74 Lowlands Scribbly Gum	145 Sydney Peppermint-Stringybark
17 Candlebark	79 Manna Gum-Stringybark	149 Mallee-Peppermint mosaic
19 Central Mid Elevation Sydney Blue Gum	80 Manna Gum	154 Wet Flooded Gum-Tallowwood
21 Lowlands Grey Box	81 Messmate	163 Yellow Box-Blakely's Red Gum
22 Coast Cypress Pine	85 Mixed Moist Hardwood	168 Rainforest
24 Clarence Lowlands Spotted Gum	87 Mixed Tableland Stringybark-Gum OpenForest	175 Orange Gum-New England Blackbutt-Tumbledown Gum
25 Coast Range Spotted Gum-Blackbutt	93 Montane Stringybark-Gum	176 Orange Gum-Ironbark
30 Diehard Stringybark-New England Blackbutt	100 Northern Grassy Sydney Blue Gum	177 Outcrop Orange Gum-New England Blackbutt
31 Dorrig White Gum	112 Paperbark	179 Yellow Box-Broad-leaved Stringybark
36 Dry Grassy Tallowwood-Grey Gum	114 Peppermint-Mountain/Manna Gum	183 Red Gum-Apple
45 Dunns White Gum	116 Red Gum-Stringybark	186 Open Tumbledown Gum-Black Cypress-Orange Gum
47 Escarpment Redgum	119 Richmond Range Spotted Gum-Box	190 Yellow Box-Grey Box-Red Gum
50 Wet Bangalow-Brushbox	120 River Oak	195 Apple-Manna Gum woodland

61 Grey Box-Ironbark	123 Roundleaved Gum	196 Broad-leaved Stringybark-Apple Box
62 Grey Box-Northern Grey Gum	126 Sandstone Spotted Gum-Blackbutt	197 Broad-leaved Stringybark
68 High Elevation Messmate-Brown Barrell	132 Snow Gum -Mountain/Manna Gum	198 Silvertop Stringybark
71 Ironbark	138 Steel Box/Craven Grey Box	200 Broad-leaved Stringybark-Ribbon Gum
72 Low Relief Coastal Blackbutt	142 Swamp Mahogany	

<i><b>Non-Forest</b></i>		
5 Banksia	77 Mangrove	199 Riparian Shrubland
18 Casuarina Woodland	96 Natural Grassland	
66 Herbfeld and Fjaeldmark	141 Swamp	

## Notes Accompanying Table 1

- The Forest Ecosystems listed and prioritised for the Upper North East Region in Table 1 have been identified as priorities for voluntary conservation on Private Land, based on the following criteria:
  - Identification by expert panels convened during the UNE and LNE CRA as Forest Ecosystems of concern on Private Land;
  - Ecosystems with 100% target set and not met, that have extant occurrences on Private Land;
  - Ecosystems with 60% target set and not met, that are ranked as highly vulnerable (CRA expert panel vulnerability rankings 1 and 2, based on key threatening processes) or are more than 50% cleared, and have more than 50% of their occurrence on Private Land;
  - Ecosystems with 15% target set and not met, that are ranked as highly vulnerable or are more than 50% cleared, and have more than 50% of their occurrence on Private Land.
- It should be noted that these are priorities only for protection by voluntary conservation mechanisms.

**Table 2 Private Land priorities for the Lower North East CAR Reserve System**

<b>Priority for voluntary protection of Forest Ecosystems</b>		
<i><b>Forests</b></i>		
2 Alpine Gum	87 Mixed Tableland Stringybark-Gum Open Forest	168 Rainforest
3 Baileys Stringybark	89 Moist Foothills Spotted Gum	174 Orange Gum-Tumbledown Gum-Apple
7 Barrington Moist Blue Gum-White Mahogany	90 Moist Messmate-Gum	175 Orange Gum-New England Blackbutt-Tumbledown Gum
8 Barrington Wet New England Blackbutt-Blue Gum	92 Moist Shrubby Stringybark-Gum	176 Orange Gum-Ironbark
11 Blackbutt-Sydney Peppermint-Smoothbarked Apple	93 Montane Stringybark-Gum	178 Outcrop Black Cypress-Tumbledown Gum
14 Brown Barrell	97 Needlebark Stringybark-Large Fruited Blackbutt	177 Outcrop Orange Gum-New England Blackbutt
17 Candlebark	99 New England Stringybark-Blakelys Red Gum	179 Yellow Box-Broad-leaved Stringybark
19 Central Mid Elevation Sydney Blue Gum	105 Nymboidea Tallowwood-Turpentine	182 Apple-Black Cypress
21 Lowlands Grey Box	112 Paperbark	184 Tumbledown Gum-Ironbark
26 Coastal Flooded Gum	113 Peppermint	186 Open Tumbledown Gum-Black Cypress-Orange Gum
28 Cool Moist Messmate	114 Peppermint-Mountain/Manna Gum	189 Silverleaved Ironbark-Cypress
31 Dorrig White Gum	116 Red Gum-Stringybark	190 Yellow Box-Grey Box-Red Gum
32 Dry Foothills Blackbutt-Turpentine	117 Red Mahogany	195 Apple-Manna Gum woodland

33 Dry Foothills Spotted Gum	120 River Oak	196 Broad-leaved Stringybark-Apple Box
34 Dry Grassy Blackbutt-Tallowwood	122 Rough-barked Apples	197 Broad-leaved Stringybark
41 Dry Open New England Blackbutt	123 Roundleaved Gum	198 Silvertop Stringybark
47 Escarpment Redgum	124 Roundleaved Gum-Turpentine	200 Broad-leaved Stringybark-Ribbon Gum
48 Escarpment Scribbly Gum-Apple	132 Snow Gum -Mountain/Manna Gum	207 Hunter Spotted Gum-Ironbark
54 Grey Box-Red Gum-Grey Ironbark	134 South Coast Shrubby Grey Gum	208 Hunter Roughbarked Apple- Red Gum
56 Granite Mallee	135 South Coast Tallowwood-Blue Gum	224 Coastal Apple-Stringybark-Scribbly Gum
57 Highland Granite Stringybarks	139 Stringybark-Apple	225 Wyong Apple-Scribbly Gum
58 Gorge Grey Gum	142 Swamp Mahogany	232 Watagan Spotted Gum-Ironbark-White Mahogany
70 High Elevation Open Spotted Gum	143 Swamp Oak	240 Roughbarked Apple-Redgum
72 Low Relief Coastal Blackbutt	146 Tallowwood	241 Ironbark-Redgum
73 Lowland Red Gum	149 Mallee-Peppermint mosaic	247 Coastal Bastard Mahogany Forest
79 Manna Gum-Stringybark	153 Wet Coastal Tallowwood-Brushbox	249 White Box-Ironbark-Red Gum
80 Manna Gum	154 Wet Flooded Gum-Tallowwood	250 Banksia Heath-Scribbly Gum-Apple
81 Messmate	162 Whitetopped Box	
82 Messmate-Mountain Gum Forest	163 Yellow Box-Blakely's Red Gum	

<i>Non-Forest</i>		
5 Banksia	64 Heath	125 Saltbush
18 Casuarina Woodland	77 Mangrove	199 Riparian Shrubland

## Notes Accompanying Table 2

- The Forest Ecosystems listed and prioritised for the Lower North East Region in Table 2 have been identified as priorities for voluntary conservation on Private Land, based on the following criteria:
  - Identification by expert panels convened during the UNE and LNE CRA as forest ecosystems of concern on Private Land;
  - Ecosystems with 100% target set and not met, that have extant occurrences on Private Land;
  - Ecosystems with 60% target set and not met, that are ranked as highly vulnerable (CRA expert panel vulnerability rankings 1 and 2, based on key threatening processes) or are more than 50% cleared, and have more than 50% of their occurrence on Private Land;
  - Ecosystems with 15% target set and not met, that are ranked as highly vulnerable or are more than 50% cleared, and have more than 50% of their occurrence on Private Land.
- It should be noted that these are priorities only for protection by voluntary conservation mechanisms.

**THREATENED FLORA, FAUNA AND ECOLOGICAL COMMUNITIES**

- 1 Both Parties recognise the range of mechanisms to conserve the habitat of endangered and vulnerable flora and fauna in both the Upper North East and Lower North East regions. These include: (i) protection within the CAR Reserve System; (ii) protection of key habitat components using the Integrated Forestry Operations Approval; (iii) protection of key habitats such as rainforest, heaths, swamps and other wet communities, rocky outcrops and rare ecological communities; and (iv) the development of Recovery Plans for species, populations and communities listed under the *Threatened Species Conservation Act 1995* (NSW) and the *Endangered Species Protection Act 1992* (C'wth). Key species are protected by a combination of reservation and prescription.
- 2 Current priorities for developing Recovery Plans for threatened forest dependent fauna and flora for the next five years are provided in Table 1. Parties note that the list at Table 1 is indicative only and timeframes are dependent upon funding. These priorities may change and new priorities may arise in response to additional information, funding etc.
- 3 Where Recovery Plans under the *Threatened Species Conservation Act 1995* (NSW) meet the requirements of the *Endangered Species Protection Act 1992* (C'wth), the Commonwealth will consider adopting them under Section 46 of the *Endangered Species Protection Act 1992* (C'wth).

**Threatening Processes**

- 4 Threat Abatement Plans under the *Endangered Species Protection Act 1992* (C'wth) for Predation by the Feral Cat, Predation by the European Red Fox (*Vulpes vulpes*), Competition and Land Degradation by the European Rabbit, and Competition and Land Degradation by the Feral Goat, have been finalised and approved by the Minister. A priority for a Threat Abatement Plan under the Act is Dieback caused by the root-rot fungus (*Phytophthora cinnamoni*). A Threat Abatement Plan under the *Threatened Species Conservation Act 1995* (NSW) for Predation by the European Red Fox is due for completion in July 2000.

**Table 1: Priority species for preparation of Recovery Plans (over next five years).**

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Acacia baueri</i> <i>baueri</i>		-	Vulnerable	National Plan by July 2005
<i>Acacia bynoeana</i>		-	Vulnerable	National Plan by July 2005
<i>Acacia courtii</i>		-	Vulnerable	National Plan by July 2005
<i>Acacia macnuttiana</i>	-	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Acacia pubifolia</i>	-	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Acacia pycnostachya</i>		-	Vulnerable	National Plan by July 2005
<i>Acacia ruppia</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Acronychia littoralis</i>	Scented Acronychia	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Allocasuarina defungens</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Allocasuarina simulans</i>		-	Vulnerable	National Plan by July 2005
<i>Almaleea cambagei</i>	-	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Amyema scandens</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Angophora robur</i>		-	Vulnerable	National Plan by July 2005
<i>Arthraxon hispidus</i>		-	Vulnerable	National Plan by July 2005
<i>Asperula asthenes</i>		-	Vulnerable	National Plan by July 2005
<i>Austromyrtus fragrantissima</i>	Sweet Myrtle; Small-leaved Myrtle	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Baloghia marmorata</i>		-	Vulnerable	National Plan by July 2005
<i>Bertya ingramii</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Boronia granitica</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Bosistoa selwynii</i>		-	Vulnerable	National Plan by July 2005
<i>Bosistoa transversa</i>		-	Vulnerable	National Plan by July 2005
<i>Bothriochloa biloba</i>		-	Vulnerable	National Plan by July 2005
<i>Bulbophyllum globuliforme</i>		-	Vulnerable	National Plan by July 2005
<i>Burhinus grallarius</i>	Bush Stone-curlew	Endangered	-	NPWS Plan by January 2005
<i>Cadellia pentastylis</i>	Ooline	-	Vulnerable	National Plan by July 2005
<i>Callitris oblonga</i>	Pigmy Cypress-pine	-	Vulnerable	National Plan by July 2005
<i>Caretta caretta</i>	Loggerhead Turtle	-	Endangered	National Plan by July 2003
<i>Chelonia mydas</i>	Green Turtle	-	Vulnerable	National Plan by July 2005
<i>Clematis fawcettii</i>	Northern Clematis	-	Vulnerable	National Plan by July 2005
<i>Corchorus cunninghamii</i>		Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Corokia whiteana</i>		-	Vulnerable	National Plan by July 2005
<i>Cryptocarya foetida</i>	Stinking Cryptocarya	-	Vulnerable	National Plan by July 2005
<i>Cyclopsitta diophthalma coxeni</i>	Coxen's Double-eyed Fig Parrot	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Cynanchum elegans</i>	White-flowered Wax Plant	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Dasyornis brachypterus</i>	Eastern Bristlebird	-	Endangered	National Plan by July 2003
<i>Dasyurus viverrinus</i>	Eastern Quoll	Endangered	-	NPWS Plan by January 2005
<i>Davidsonia pruriens</i> var. <i>jerseyana</i>		Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Davidsonia</i> sp. <i>A Mullumbimby-Currimbin Ck</i>	Davidson's Plum	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Dermochelys coriacea</i>	Leathery Turtle	-	Vulnerable	National Plan by July 2005
<i>Desmodium acanthocladum</i>		-	Vulnerable	National Plan by July 2005



Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Dichanthium setosum</i>		-	Vulnerable	National Plan by July 2005
<i>Dichelachne parva</i>		-	Vulnerable	National Plan by July 2005
<i>Digitaria porrecta</i>		Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Diomedea exulans</i>	Wandering Albatross	-	Vulnerable	National Plan by July 2005
<i>Diospyros mabacea</i>	Red-fruited Ebony; Silky Persimmon	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Diploglottis campbellii</i>	Small-leaved Tamarind	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Diuris pedunculata</i>		Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Diuris venosa</i>		-	Vulnerable	National Plan by July 2005
<i>Elaeocarpus sp. Rocky Creek</i>		Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Elaeocarpus williamsianus</i>	Hairy Quandong	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Emydura signata</i>	Bellinger River Emydura	-	Vulnerable	National Plan by July 2005
<i>Endiandra floydii</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Endiandra hayesii</i>		-	Vulnerable	National Plan by July 2005
<i>Eriocaulon australasicum</i>		-	Vulnerable	National Plan by July 2005
<i>Eriostemon ericifolius</i>		-	Vulnerable	National Plan by July 2005
<i>Erythranthera pumila</i>		-	Vulnerable	National Plan by July 2005
<i>Erythrotriorchis radiatus</i>	Red Goshawk	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Eubalaena australis</i>	Southern Right Whale	-	Endangered	National Plan by July 2003
<i>Eucalyptus caleyi ovenidenii</i>		-	Vulnerable	National Plan by July 2005

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Eucalyptus camfieldii</i>	Camfield's Stringybark	-	Vulnerable	National Plan by July 2005
<i>Eucalyptus glaucina</i>	Blue Gum var.	-	Vulnerable	National Plan by July 2005
<i>Eucalyptus infera</i>		-	Vulnerable	National Plan by July 2005
<i>Eucalyptus mckieana</i>	McKie's Stringybark	-	Vulnerable	National Plan by July 2005
<i>Eucalyptus nicholii</i>	Black Peppermint	-	Vulnerable	National Plan by July 2005
<i>Eucalyptus pachycalyx</i>	Shiny-barked Gum	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Eucalyptus parramattensis decadens</i>		-	Vulnerable	National Plan by July 2005
<i>Eucalyptus pumila</i>	Polkolbin Mallee	-	Vulnerable	National Plan by July 2005
<i>Eucalyptus scoparia</i>	Wallangarra White Gum	-	Vulnerable	National Plan by July 2005
<i>Eucalyptus tetrapleura</i>	Square-fruited Ironbark	-	Vulnerable	National Plan by July 2005
<i>Euphrasia bella</i>		-	Vulnerable	National Plan by July 2005
<i>Euphrasia collina subsp. muelleri</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Floydia praealta</i>		-	Vulnerable	National Plan by July 2005
<i>Fontainea australis</i>		-	Vulnerable	National Plan by July 2005
<i>Fontainea oraria</i>	Coastal Fontainea	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Gentiana wissmannii</i>		-	Vulnerable	National Plan by July 2005
<i>Gingidia montana</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Grevillea beadleana</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Grevillea guthrieana</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Grevillea masonii</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Grevillea mollis</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Grevillea obtusiflora</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Grevillea shiressii</i>		-	Vulnerable	National Plan by July 2005
<i>Hakea pulvinifera</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Hakea sp. B Kowmung River</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Haloragis exalata velutina</i>		-	Vulnerable	National Plan by July 2005
<i>Hicksbeachia pinnatifolia</i>		-	Vulnerable	National Plan by July 2005
<i>Homoranthus darwinioides</i>		-	Vulnerable	National Plan by July 2005
<i>Hoplocephalus bungaroides</i>	Broad Headed Snake	-	Vulnerable	National Plan by July 2005
<i>Hydrocharis dubia</i>		-	Vulnerable	National Plan by July 2005
<i>Isoglossa eranthemoides</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Kennedia retrorsa</i>		-	Vulnerable	National Plan by July 2005
<i>Kunzea rupestris</i>		-	Vulnerable	National Plan by July 2005
<i>Lasiopetalum longistamineum</i>		-	Vulnerable	National Plan by July 2005
<i>Lathamus discolor</i>	Swift Parrot	-	Vulnerable	National Plan by July 2005
<i>Lepidium hyssopifolium</i>		-	Endangered	National Plan by July 2003
<i>Leucopogon confertus</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Litoria aurea</i>	Green and Golden Bell Frog	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Litoria booroolongensis</i>	Booroolong Frog	Endangered	-	NPWS Plan by January 2005

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Litoria castanea</i>	Yellow Spotted Bell Frog	Endangered	-	NPWS Plan by January 2005
<i>Litoria piperata</i>	Peppered Frog	Vulnerable	-	NPWS Plan by January 2005
<i>Macadamia tetraphylla</i>		-	Vulnerable	National Plan by July 2005
<i>Macrozamia occidua</i>		-	Vulnerable	National Plan by July 2005
<i>Melichrus hirsutus</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Mixophyes balbus</i>	Stuttering Frog	Vulnerable	-	NPWS Plan by January 2005
<i>Mixophyes fleayi</i>	Fleay's Frog	Vulnerable	-	NPWS Plan by January 2005
<i>Mixophyes iteratus</i>	Giant Barred Frog	Endangered	-	NPWS Plan by January 2005
<i>Neoastelia spectabilis</i>		-	Vulnerable	National Plan by July 2005
<i>Ochrosia moorei</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Olearia cordata</i>		-	Vulnerable	National Plan by July 2005
<i>Olearia flocktoniae</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Owenia cepiodora</i>		-	Vulnerable	National Plan by July 2005
<i>Parsonsia dorrigensis</i>	-	Vulnerable	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Persoonia acerosa</i>		-	Vulnerable	National Plan by July 2005
<i>Petalura gigantea</i>	Giant Dragonfly	Endangered	-	NPWS Plan by January 2005
<i>Petrogale penicillata</i>	Brush-tailed Rock Wallaby	-	Vulnerable	National Plan by July 2005
<i>Phaius australis</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Phaius tankervilleae</i>	Swamp Lily; Swamp Orchid	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Phebalium elatius beckeri</i>		-	Endangered	National Plan by July 2003

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Pimelea venosa</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Plectranthus nitidus</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Poephila cincta</i>	Black-throated Finch	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Pomaderris brunnea</i>		-	Vulnerable	National Plan by July 2005
<i>Prostanthera askania</i>		Endangered	Endangered	NPWS Plan by January 2005 National Plan by July 2003
<i>Prostanthera cineolifera</i>		-	Vulnerable	National Plan by July 2005
<i>Prostanthera densa</i>		-	Vulnerable	National Plan by July 2005
<i>Prostanthera sp. Somersby (syn. P. junonsis)</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Pseudomys oralis</i>	Hastings River Mouse	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Psittaculirostris diophthalma coxeni</i>		-	Endangered	National Plan by July 2003
<i>Pterodroma leucoptera leucoptera</i>	Gould's Petrel	-	Endangered	National Plan by July 2003
<i>Pultenaea campbellii</i>		-	Vulnerable	National Plan by July 2005
<i>Pultenaea stuartiana</i>		-	Vulnerable	National Plan by July 2005
<i>Quassia sp. Mooney Creek</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Randia moorei</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Rapanea sp. A Richmond River</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Rutidosis heterogama</i>		-	Vulnerable	National Plan by July 2005

Scientific name	Common Name	NSW Status	National Status	Completion Date
<i>Sarcophilus fitzgeraldii</i>		-	Vulnerable	National Plan by July 2005
<i>Sophora fraseri</i>		-	Vulnerable	National Plan by July 2005
<i>Sterna albifrons</i>	Little Tern	-	Endangered	National Plan by July 2003
<i>Symplocos baeuerlenii</i>		-	Vulnerable	National Plan by July 2005
<i>Syzygium hodgkinsoniae</i>	Red Lilly-Pilly; Smooth-bark Rose Apple	-	Vulnerable	National Plan by July 2005
<i>Syzygium moorei</i>	Coolamon Robby; Rose-Apple	-	Vulnerable	National Plan by July 2005
<i>Syzygium paniculatum</i>	Creek Satin Ash	-	Vulnerable	National Plan by July 2005
<i>Tasmannia glaucifolia</i>		-	Vulnerable	National Plan by July 2005
<i>Tasmannia purpurascens</i>		-	Vulnerable	National Plan by July 2005
<i>Tetradlea glandulosa</i>		-	Vulnerable	National Plan by July 2005
<i>Tetradlea juncea</i>		-	Vulnerable	National Plan by July 2005
<i>Thersites mitchellae</i>	Northern Tree Snail	Endangered	-	NPWS Plan by January 2005
<i>Thesium australe</i>		-	Vulnerable	National Plan by July 2005
<i>Tinospora tinctoria</i>		-	Vulnerable	National Plan by July 2005
<i>Turnix melanogaster</i>	Black-breasted Button-Quail	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Turnix melanogaster</i>	Black-breasted Button-Quail	-	Vulnerable	National Plan by July 2005
<i>Tylophora woollsii</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Uromyrtus australis</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003
<i>Velleia perfoliata</i>		-	Vulnerable	National Plan by July 2005
<i>Xanthomyza phrygia</i>	Regent Honeyeater	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003

<b>Scientific name</b>	<b>Common Name</b>	<b>NSW Status</b>	<b>National Status</b>	<b>Completion Date</b>
<i>Xerothamnella parvifolia</i>	-	Endangered	Vulnerable	NPWS Plan by January 2005, National Plan by July 2005
<i>Zieria lasiocaulis</i>	-	Endangered	Endangered	NPWS Plan by January 2005, National Plan by July 2003

## **NATIONAL ESTATE VALUES**

### **Protection and Management of National Estate Values**

1. Parties endorse the findings of the Commonwealth/NSW joint studies of the National Estate in the Upper North East and Lower North East regions (the Joint Study) and agree that National Estate Values exist as documented in publicly available plots of GIS coverages and the following published documents:

#### **Upper North East**

- (a) *Identification, Assessment and Protection of National Estate – Part A Natural Values, Upper North East Region*, Environment Australia (1998) (This is the report for two projects: ‘JANIS and Natural National Estate Conservation Requirements for the Upper North East CRA Region’ and ‘Extensive Natural National Estate Values – Upper North East CRA’);
- (b) *Places of Geoheritage Significance in NSW CRA Forest Regions*, Osborne, R.A.L., Docker, B. and Salem, L. (1998);
- (c) *Identification of Places of Natural History Significance in NSW CRA Forest Regions: 2. Sites of Potential National Estate Value*, Denny, M. (1998);
- (d) *Community Heritage Values Identification and Assessment Project for the Upper and Lower North East Regions*, Volumes 1-3, Context Pty Ltd (1998);
- (e) *Thematic Forest History and Heritage Assessment (Non-Indigenous) Upper North East and Lower North East Regions*, Bickford, A. and Brayshaw, H. (1998);
- (f) *Assessment of Places of Aesthetic Significance within the Forested Areas of NSW CRA Regions (Statewide), Stage 2. Upper North East Region*, Hibbard, A. (1998).

#### **Lower North East**

- (a) *Identification, Assessment and Protection of National Estate – Part A Natural Values, Lower North East Region*, Environment Australia (1998) (This reports on the two projects: ‘JANIS and Natural National Estate Conservation Requirements for the Lower North East CRA Region’ and ‘Extensive Natural National Estate Values – Lower North East CRA’);



- (b) *Places of Geoheritage Significance in NSW CRA Forest Regions*, Osborne, R.A.L., Docker, B. and Salem, L. (1998);
  - (c) *Identification of Places of Natural History Significance in NSW CRA Forest Regions: 2. Sites of Potential National Estate Value*, Denny, M. (1998);
  - (d) *Community Heritage Values Identification and Assessment Project for the Upper and Lower North East Regions*, Volumes 1-3, Context Pty Ltd (1998);
  - (e) *Thematic Forest History and Heritage Assessment (Non-Indigenous) Upper North East and Lower North East Regions*, Bickford, A. and Brayshaw, H. (1998);
  - (f) *Assessment of Places of Aesthetic Significance within the Forested Areas of NSW CRA Regions (Statewide), Stage 2. Lower North East Region*, Hibbard, A. (1998);
2. Parties recognise that the extensive and systematic information and regional framework provided by the Joint Study and this Agreement provide a unique regional context for National Estate Values in the Upper North East and Lower North East regions.
  3. Parties agree that many of the National Estate Values are adequately reserved in the CAR Reserve System (including its Dedicated Reserve, Informal Reserve and prescription elements). The State will protect in a regional context the full range of National Estate Values on Public Land, through the application of the Forest Management System in accordance with this Agreement, and the implementation of the improvements agreed in Attachment 8.
  4. Parties agree that National Estate Values will be managed on the basis of the following principles:
    - Integrated regional management is the basis for effective conservation of National Estate Values;
    - Protection decisions should be based on the extensiveness of each value within the region, taking into account its abundance, spatial and temporal distribution, spatial characteristics, variation and condition;
    - Protection decisions should not be based on individual expressions of the value in isolation;
    - Protection decisions should consider the sensitivity of each National Estate Value to various types of disturbance, with sensitive natural values having adequate representation in the CAR Reserve System;
    - Management in all Public Land tenures should address National Estate Values and make provision for their maintenance in management plans;

- Protection of National Estate Values is achieved by the CAR Reserve System and other legislated protection mechanisms and within State forests through statutory management plans and by active management; and
  - It is productive, effective and necessary to work with the community to manage heritage values.
5. Parties agree that the management of cultural values, both Aboriginal and non-Aboriginal, in the Upper North East region, be undertaken consistent with the guidelines in the *Protective Mechanisms for Cultural Heritage – Generic Version* and in the Lower North East region consistent with the guidelines in the *Protective Mechanisms for Cultural Heritage – Lower North East*. The above guidelines are based on the principles of *The Burra Charter (The Australia ICOMOS Charter for Places of Cultural Significance)* which provides the framework for the protection of cultural heritage sites and places. The Commonwealth acknowledges that the Cultural Heritage Guidelines attached to the IFOA 1999 are consistent with the above guidelines.
  6. Parties agree to maintain the databases of the values identified in the Joint Study and cooperate in relation to access to the Data.
  7. Parties agree that the sensitivity or resilience of each National Estate Value, and the appropriate approach to the management of each value is indicated in Tables 1 and 2 and subject to Attachment 8.

### **Existing listings**

8. Parties note that the Australian Heritage Commission (the Commission) has agreed to update the Statements of Significance and condition and description statements for all existing listings to incorporate the results of the Joint Study. Both Parties note that existing National Estate places will remain in the Register of the National Estate where the results of the Joint Study confirm the presence of National Estate Values.

### **Listings arising from the Joint Study**

9. Parties note that new listings recommended to the Commission will include National Estate Values protected by reservation, reserve management prescription, site exclusion, consultation processes or other measures appropriate to the value, or which are robust and not affected by harvesting or other off-reserve management regimes or activity.
10. Parties note that the Commission will work in cooperation with New South Wales in delineating places for National Estate listing. The identification of these areas will be based on the following principles:
  - New listings in Dedicated Reserves and Informal Reserves, the boundaries of which are unlikely to change, should be distinct places and may be based on any National Estate Values;

- Listing of other National Estate places outside the CAR Reserve System will be based on robust values and those values that are protected by forest management prescription. Areas of contiguous values will be listed as a single National Estate place; and
  - Boundaries for listing National Estate places will be based on identified values and will follow the boundaries of Dedicated Reserves, Informal Reserves, natural topographic features, management boundaries and/or roads as appropriate.
11. For places arising from the Joint Study, only places identified by the above principles will be listed in the Register of the National Estate.
  12. Parties note that the identification and assessment of National Estate Values for the CRAs have been completed with the exception of Indigenous heritage. Parties note that the Commission will continue to consult with New South Wales and Indigenous communities in an effort to finalise the identification and assessment of Indigenous heritage places and values.
  13. Parties note that in the Upper North East and Lower North East regions some National Estate Values were dealt with adequately through the assessment of other values. These values are well represented in the CAR Reserve System through the conservation of other National Estate Values or of CAR Values. These values include vegetation succession (A.2), and vegetation communities characteristic of their class (D.1). Some values, being localised, are covered by protection mechanisms agreed in the RFA. See Tables 1 and 2 for further details. Other National Estate Values were considered by experts not to be present in the region or were not above threshold for consideration as National Estate in any known sites in the region.

### **Future Listings**

14. Parties note that the Commission does not intend to undertake any further regional studies of forests in the Upper North East and Lower North East regions.
15. Parties note that the Commission confirms that, based on the Joint Study, there is no evidence to identify additional extensive National Estate Values in the forested areas of the Upper North East and Lower North East regions and that it therefore does not anticipate listing additional large places in the region.
16. Parties note that the Commission will refer future nominations to them. The Parties agree to work cooperatively and in a timely fashion in considering whether such nominations will be recommended to the Commission for listing. Both Parties are to compare the nominations with the existing agreed Upper North East and Lower North East regions National Estate database, and to consider any new research or information provided.
17. Parties will jointly agree on any future recommendations to the Commission for listing. Parties note that the Commission will work cooperatively with New South Wales on the detail of any consequent listings that may arise.

18. Parties agree that all National Estate Values will be considered in forest management decisions and note that the advice of the Commission will be sought in relation to proposed actions by the Commonwealth which are outside the scope of this Agreement and which might adversely affect National Estate Values in the Upper North East and Lower North East regions. This includes any proposed actions that may affect National Estate Values in areas outside the CAR Reserve System and which have not been listed on the Register of the National Estate. Parties note that the Commission has agreed to take into account the undertakings in this Agreement in providing its advice, and will provide such advice in a regional context.
19. Parties note that the Commission may delegate preparation of section 30 advice with respect to National Estate in the Upper North East and Lower North East regions to an appropriate official in a New South Wales Agency. This delegation would be limited to the Upper North East and Lower North East regions, and those operations that affect those aspects of the forest estate documented in the CRA.

**Table 1. UPPER NORTH EAST REGION - Protection of National Estate Values on Public Land**

**Category 1: Values that are adequately protected at a regional level in the Dedicated Reserve or Informal Reserve components of the CAR Reserve System established under this Agreement.**

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing and/or off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Wilderness (A.2, B.1)<sup>c</sup></b>	High sensitivity to unnatural disturbance. Low resilience to forestry activities.	64	-	64	<i>Wilderness Act 1977.</i>	NPWS Environmental Management System.
<b>Old Growth Forest and Rare Old Growth Forest (A.2 &amp; B.1) <sup>c</sup></b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.  A2 Old Growth  B1 (Rare) Old Growth – See Table 2 in Attachment 1(A) and 1(B)	48	13	61	<i>Threatened Species Conservation Act 1995, Environmental Planning and Assessment Act 1979, National Parks and Wildlife Act 1974, Endangered Species Protection Act 1992, Native Vegetation Conservation Act 1997, Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.</i>	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.
<b>Natural Landscapes (A.2 &amp; B.1)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	56	9	65	<i>Heritage Act 1977, Wilderness Act 1977.</i>	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing and/or off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Undisturbed Catchments (A2 &amp; B1)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	90	1	91	<i>Heritage Act 1977, Wilderness Act 1977.</i>	Regional ESFM Plan;  Section 2.6 (Wild Rivers) of the New South Wales <i>Upper North East Region Forest Agreement</i> and <i>Lower North East Region Forest Agreement</i> ;  Native Forest Management System;  NPWS Environmental Management System.

#### NOTES ACCOMPANYING TABLE 1

<sup>a</sup> Sensitivity - to disturbance, relates to extent of loss or diminution in a value due to the effects of disturbance.

<sup>b</sup> Resilience - relates to the extent of likely recovery of a diminished value, and to the time and management effort required to achieve this recovery.

<sup>c</sup> JANIS values for which there were specific numerical targets.

<sup>d</sup> Criteria in plain type-face are values which were assessed indirectly as part of the assessment of the criteria in bold type-face.

**Category 2: Values that are adequately protected at a regional level through the Dedicated Reserve, Informal Reserve or Consolidated Prescription<sup>c</sup> components of the CAR Reserve System established under this Agreement and existing off reserve protection mechanisms**

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Flora and Fauna Refugia (A.1 &amp; A.2)</b> Significant Wetlands (D.1) <sup>d</sup>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	64	6	4	74	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1995;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Rare Vegetation Communities (A.2, B.1, D.1)<sup>c</sup></b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	75	6	1	82	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i> <i>Native Vegetation Conservation Act 1997;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Centres of Endemism – Flora and Fauna (A.1)</b>	Value is dependent on individual species response. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	65	8	3	76	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Primitive and Relictual Species (A.1)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	70	5	2	77	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.



National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Species with Disjunct Ranges (A.1)</b>	Sensitivity and resilience varies depending on the species and habitat required. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	Fauna: 68 Flora: 80	3 8	2 1	73 89	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System;  NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Vegetation Community Richness (A3)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Medium resilience to forestry activities.	45	3	7	55	<i>Environmental Planning and Assessment Act 1979;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Rare, Uncommon or Threatened Species</b>	Sensitivity and resilience varies depending on the species and habitat required. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	Fauna: 65 Flora: 58	5 13	4 2	74 73	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Important Habitat (A.2)</b> Migratory Species	Sensitivity and resilience varies depending on the species and habitat required. Species sensitive to logging, grazing and unnatural fire are at particular risk.	45	4	7	56	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning; and Management Plans.  RAMSAR, CAMBA and JAMBA convention and agreements on migratory and wetland species.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Remnant Vegetation (A.2)</b>	High sensitivity to logging, grazing, fire and other forestry activities. Low resilience to forestry activities.	38	9	3	50	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i> <i>Native Vegetation Conservation Act 1997;</i> <i>Protection of the Environment Operations Act 1997;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.
<b>Habitat Richness (A.3)</b>	Sensitivity and resilience varies depending on the habitat. Habitat types sensitive to logging, grazing, and unnatural fire are at particular risk.	60	5	5	70	<i>Environmental Planning and Assessment Act 1979;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Species Richness (A.3)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Medium resilience to forestry activities.	Fauna: 62 Flora: 66	5 7	4 3	71 76	<i>Environmental Planning and Assessment Act 1979;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Species at the Limits of their Distribution Range (A.1)</b>	Value is dependent on individual species response. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	Fauna: 83 Flora: 69	2 3	0 2	85 74	<i>Threatened Species Conservation Act 1995</i> , <i>Environmental Planning and Assessment Act 1979</i> ; <i>National Parks and Wildlife Act 1974</i> , <i>Endangered Species Protection Act 1992</i> ; Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Historic Values (A.3, A.4, B.2, C.2, D.2, F.1, &amp; H.1)</b>	Sensitive to moderately sensitive dependent on the integrity of the site and extant fabric.	43	0	0	43	<i>Heritage Act 1977</i> ; <i>National Parks and Wildlife Act 1974</i> ; <i>Environmental Planning and Assessment Act 1979</i> ; Protective Mechanisms for Cultural Heritage – Generic Version; Forest Management Zones, Codes of Practice, and Forest Management Plans; Cultural Heritage Guidelines attached to the Integrated Forestry Operations Approvals.	Regional ESFM Plan; Native Forest Management System; Joint NPWS/SFNSW Regional Recreation and Tourism Plans; NPWS Environmental Management System.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Social / Community Heritage Value (G.1)</b>	Sensitive to moderately sensitive dependent on nature of association.	63	1	1	65	<i>Heritage Act 1977;</i> <i>National Parks and Wildlife Act 1974;</i> Protective Mechanisms for Cultural Heritage – Generic Version; Forest Management Zones, Codes of Practice, and Forest Management Plans; Cultural Heritage Guidelines attached to the Integrated Forestry Operations Approvals.	Regional ESFM Plan; Joint NPWS/SFNSW Regional Recreation and Tourism;  NPWS Environmental Management System.
<b>Aesthetic Value (E.1)</b>	Moderately sensitive dependent on the nature of the aesthetic experience and the type of feature.	90	1	0	91	<i>Heritage Act 1977;</i> <i>National Parks and Wildlife Act 1974;</i> Protective Mechanisms for Cultural Heritage – Generic Version; Forest Management Zones, Codes of Practice, and Forest Management Plans; Cultural Heritage Guidelines attached to the Integrated Forestry Operations Approvals.	Regional ESFM Plan; Native Forest Management System; Joint NPWS/SFNSW Regional Recreation and Tourism Plans; NPWS Environmental Management System.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves				Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Consolidated Prescription <sup>c</sup> Reserve	Total		
<b>Research, Type Localities, Teaching and Benchmark Sites (C.1)</b>	Sensitivity and resilience varies depending on the species and habitat required. Sites sensitive to logging, grazing, and unnatural fire are at particular risk.	69	0	0	69	<i>Threatened Species Conservation Act 1995;</i> <i>Crown Lands Act 1989;</i> <i>Heritage Act 1977;</i> <i>Soil Conservation Act 1938;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>Native Vegetation Conservation Act 1997;</i> <i>Protection of the Environment Operations Act 1997;</i> <i>Clean Water Act 1970.</i>	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System;
<b>Geoconservation Values (A1, A2, A.3, B.1, C.1, C.2, D.1, H.1)</b>	Values are generally not sensitive to most forest uses, however some surface values are sensitive to soil disturbance and fire.	75	2	0	77	<i>Crown Lands Act (1989);</i> <i>Heritage Act 1977;</i> <i>Soil Conservation Act 1938;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>Native Vegetation Conservation Act 1997;</i> <i>Protection of the Environment Operations Act 1997;</i> <i>Clean Water Act 1970.</i>	Regional ESFM Plan.

#### NOTES ACCOMPANYING TABLE 1

<sup>a</sup> Sensitivity - to disturbance, relates to extent of loss or diminution in a value due to the effects of disturbance.

<sup>b</sup> Resilience - relates to the extent of likely recovery of a diminished value, and to the time and management effort required to achieve this recovery.

<sup>c</sup> JANIS values for which there were specific numerical targets.

<sup>d</sup> Criteria in plain type-face are values which were assessed indirectly as part of the assessment of the criteria in bold type-face.

<sup>e</sup> Zone 3A (Harvesting Exclusions) in *Forest Management Zoning In State Forests*. These areas are designed to comply with JANIS “Values Protected By Prescription” but to the fullest extent possible they will be managed to meet the requirement of JANIS Informal Reserves. These areas are of high mineral prospectivity, or dedicated leasehold where leasehold grazing may occur.

**Table 2. LOWER NORTH EAST REGION - Protection of National Estate Values on Public Land**

**Category 1: Values that are adequately protected at a regional level in the Dedicated Reserve or Informal Reserve components of the CAR Reserve System established under this Agreement.**

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing and/or off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Wilderness (A.2, B.1)<sup>c</sup></b>	High sensitivity to unnatural disturbance. Low resilience to forestry activities.	88	-	88	<i>Wilderness Act 1977.</i>	NPWS Environmental Management System.
<b>Old Growth Forest and Rare Old Growth Forest (A.2 &amp; B.1) <sup>c</sup></b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.  A2 Old Growth  B1 (Rare) Old Growth – See Table 2 in Attachment 1	80	7	87	<i>Threatened Species Conservation Act 1995, Environmental Planning and Assessment Act 1979, National Parks and Wildlife Act 1974, Endangered Species Protection Act 1992, Native Vegetation Conservation Act 1997, Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.</i>	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.
<b>Natural Landscapes (A.2 &amp; B.1)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	71	6	77	<i>Heritage Act 1977, Wilderness Act 1977.</i>	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.



National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing and/or off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Undisturbed Catchments (A2 &amp; B1)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	77	7	84	<i>Heritage Act 1977, Wilderness Act 1977.</i>	Regional ESFM Plan;  Section 2.6 (Wild Rivers) of the New South Wales <i>Upper North East and Lower North East Region Forest Agreements</i> ;  Native Forest Management System;  NPWS Environmental Management System.

**NOTES ACCOMPANYING TABLE 2**

<sup>a</sup> Sensitivity - to disturbance, relates to extent of loss or diminution in a value due to the effects of disturbance.

<sup>b</sup> Resilience - relates to the extent of likely recovery of a diminished value, and to the time and management effort required to achieve this recovery.

<sup>c</sup> JANIS values for which there were specific numerical targets.

<sup>d</sup> Criteria in plain type-face are values which were assessed indirectly as part of the assessment of the criteria in bold type-face.

**Category 2: Values that are adequately protected at a regional level through the Dedicated Reserve, Informal Reserve or Consolidated Prescription<sup>e</sup> components of the CAR Reserve System established under this Agreement and existing off reserve protection mechanisms**

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Flora and Fauna Refugia (A.1 &amp; A.2)</b> Significant Wetlands (D.1) <sup>d</sup>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	70	10	80	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979,</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1995;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Rare Vegetation Communities (A.2, B.1, D.1)<sup>e</sup></b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	75	10	85	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979,</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i> <i>Native Vegetation Conservation Act 1997;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Centres of Endemism – Flora and Fauna (A.1)</b>	Value is dependent on individual species response. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	57	10	67	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Primitive and Relictual Species (A.1)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Low resilience to forestry activities.	54	8	62	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
Species with Disjunct Ranges (A.1)	Sensitivity and resilience varies depending on the species and habitat required. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	Fauna: 52 Flora: 73	11 8	63 81	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Vegetation Community Richness (A3)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Medium resilience to forestry activities.	58	2	60	<i>Environmental Planning and Assessment Act 1979;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Rare, Uncommon or Threatened Species</b>	Sensitivity and resilience varies depending on the species and habitat required. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	Fauna: 59 Flora: 80	8 10	67 90	<i>Threatened Species Conservation Act 1995;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Important Habitat (A.2)</b> Migratory Species	Sensitivity and resilience varies depending on the species and habitat required. Species sensitive to logging, grazing and unnatural fire are at particular risk.	63	6	69	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i> Integrated Forestry Operations Approvals, Forest Management Zoning; and Management Plans. RAMSAR, CAMBA and JAMBA convention and agreements on migratory and wetland species.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Remnant Vegetation (A.2)</b>	High sensitivity to logging, grazing, fire and other forestry activities. Low resilience to forestry activities.	71	9	80	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i> <i>Native Vegetation Conservation Act 1997;</i> <i>Protection of the Environment Operations Act 1997;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.
<b>Habitat Richness (A.3)</b>	Sensitivity and resilience varies depending on the habitat. Habitat types sensitive to logging, grazing, and unnatural fire are at particular risk.	59	4	63	<i>Environmental Planning and Assessment Act 1979;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Species Richness (A.3)</b>	High sensitivity to logging, grazing, unnatural fire and other forestry activities. Medium resilience to forestry activities.	Fauna: 54 Flora: 62	8 9	62 71	<i>Environmental Planning and Assessment Act 1979;</i> Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Species at the Limits of their Distribution Range (A.1)</b>	Value is dependent on individual species response. Species sensitive to logging, grazing, and unnatural fire are at particular risk.	Fauna: 52 Flora: 65	11 10	63 75	<i>Threatened Species Conservation Act 1995,</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>National Parks and Wildlife Act 1974,</i> <i>Endangered Species Protection Act 1992;</i>  Integrated Forestry Operations Approvals, Forest Management Zoning, and Management Plans.	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System; NSW Biodiversity Strategy.
<b>Historic Values (A.3, A.4, B.2, C.2, D.2, F.1, &amp; H.1)</b>	Sensitive to moderately sensitive dependent on the integrity of the site and extant fabric.	100	0	100	<i>Heritage Act 1977;</i> <i>National Parks and Wildlife Act 1974;</i> <i>Environmental Planning and Assessment Act 1979;</i> Forest Management Zones, Codes of Practice, and Forest Management Plans;  Protective Mechanisms for Cultural Heritage – Lower North East;  Cultural Heritage Guidelines attached to the Integrated Forestry Operations Approvals.	Regional ESFM Plan; Native Forest Management System; Joint NPWS/SFNSW Regional Recreation and Tourism Plans; NPWS Environmental Management System.



National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Social / Community Heritage Value (G.1)</b>	Sensitive to moderately sensitive dependent on nature of association.	53	9	62	<i>Heritage Act 1977;</i> <i>National Parks and Wildlife Act 1974;</i> Forest Management Zones, Codes of Practice, and Forest Management Plans; Protective Mechanisms for Cultural Heritage – Lower North East; Cultural Heritage Guidelines attached to the Integrated Forestry Operations Approvals.	Regional ESFM Plan; Joint NPWS/SFNSW Regional Recreation and Tourism Plans; NPWS Environmental Management System.
<b>Aesthetic Value (E.1)</b>	Moderately sensitive dependent on the nature of the aesthetic experience and the type of feature.	99	0	99	<i>Heritage Act 1977;</i> <i>National Parks and Wildlife Act 1974;</i> Forest Management Zones, Codes of Practice, and Forest Management Plans; Protective Mechanisms for Cultural Heritage – Lower North East; Cultural Heritage Guidelines attached to the Integrated Forestry Operations Approvals.	Regional ESFM Plan; Native Forest Management System ; Joint NPWS/SFNSW Regional Recreation and Tourism Plans; NPWS Environmental Management System.

National Estate Values	Sensitivity <sup>a</sup> and resilience <sup>b</sup> to forestry activities covered by the RFA	Percentage of value on Public Land in reserves			Existing off-reserve protection mechanisms	Additional agreed actions under the North East RFA
		Dedicated Reserve	Informal Reserve	Total		
<b>Research, Type Localities, Teaching and Benchmark Sites (C.1)</b>	Sensitivity and resilience varies depending on the species and habitat required. Sites sensitive to logging, grazing, and unnatural fire are at particular risk.	55	1	56	<i>Threatened Species Conservation Act 1995;</i> <i>Crown Lands Act 1989;</i> <i>Heritage Act 1977;</i> <i>Soil Conservation Act 1938;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>Native Vegetation Conservation Act 1997;</i> <i>Protection of the Environment Operations Act 1997;</i> <i>Clean Water Act 1970.</i>	Regional ESFM Plan; Native Forest Management System; NPWS Environmental Management System.
<b>Geoconservation Values (A1, A2, A.3, B.1, C.1, C.2, D.1, H.1)</b>	Values are generally not sensitive to most forest uses, however some surface values are sensitive to soil disturbance and fire.	58	2	60	<i>Crown Lands Act (1989);</i> <i>Heritage Act 1977;</i> <i>Soil Conservation Act 1938;</i> <i>Environmental Planning and Assessment Act 1979;</i> <i>Native Vegetation Conservation Act 1997;</i> <i>Protection of the Environment Operations Act 1997;</i> <i>Clean Water Act 1970.</i>	Regional ESFM Plan.

## NOTES ACCOMPANYING TABLE 2

<sup>a</sup> Sensitivity - to disturbance, relates to extent of loss or diminution in a value due to the effects of disturbance.

<sup>b</sup> Resilience - relates to the extent of likely recovery of a diminished value, and to the time and management effort required to achieve this recovery.

<sup>c</sup> JANIS values for which there were specific numerical targets.

<sup>d</sup> Criteria in plain type-face are values which were assessed indirectly as part of the assessment of the criteria in bold type-face.

<sup>e</sup> Zone 3A (Harvesting Exclusions) in *Forest Management Zoning In State Forests*. These areas are designed to comply with JANIS “Values Protected By Prescription” but to the fullest extent possible they will be managed to meet the requirement of JANIS Informal Reserves. These areas are of high mineral prospectivity, or dedicated leasehold where leasehold grazing may occur.



**ATTACHMENT 5**  
**(clause 39)**

**MILESTONES**

<b>Clause</b>	<b>Action</b>	<b>Timeline</b>
6	The Parties to determine the process for extending the Agreement for a further period.	As part of the third five-yearly review
33	Commonwealth to use its best endeavours to secure the enactment of legislation which amends <i>the Environmental Protection and Biodiversity Conservation Act 1999</i> (Cwlth)	By 30 June 2000
39	Parties to report annually on the achievement of milestones in this Agreement.	Annually for the first five years
42	The Parties to determine the mechanism for the five-year review.	Before the end of the five-year review period
43	Commonwealth will table the signed RFA in the Commonwealth Parliament.	Following Signature
43	Commonwealth will table in the Commonwealth Parliament the annual reports of achievement of milestones for the first four years.	Annually
43	Commonwealth will table in the Commonwealth Parliament the first five yearly review on performance against milestones and commitments.	Following first five yearly review
48(c)	New South Wales to complete and publish plans of management for areas dedicated under the <i>National Parks and Wildlife Act 1974</i> (NSW).	By 1 January 2005
48(d)	New South Wales to complete and publish Regional ESFM Plans for State forests.	By 30 June 2000
48(e)	New South Wales to implement the Forest Management Zoning system for the Upper North East and Lower North East regions.	By 30 June 2000
48(g)	New South Wales to implement the review and monitoring processes and develop the strategic and operational requirements of sustainable yield systems and processes to enable a review of Sustainable Yield.	By 1 December 2006.
48(h)	New South Wales to develop and implement environmental management systems.	Within five years of signing

Clause	Action	Timeline
51	NSW to report on compliance of the <i>Integrated Forestry Operations Approval for the Upper North East Region</i> and the <i>Integrated Forestry Operations Approval Lower North East Region</i> and furnish the Commonwealth with a copy of these reports.	Annually
53(d)	Both Parties to further develop, review, and if necessary revise Sustainability Indicators.	In time for the first five-yearly review
57	New South Wales to produce a code of practice for Timber Harvesting of native forest on Private Lands.	By the first five-yearly review
58	NSW to complete Code of Practice for Plantations on Private Land.	31 December 2000
81	NSW to review FRAMES and Wood supply.	By 1 December 2006
83	Changes in contracted volumes following review to be incorporated in this Agreement and Wood Supply Agreement holders to be advised.	By 1 December 2006
100	New South Wales to establish a Research Liaison Committee and publish a list of research priorities.	By August 2000
102	New South Wales to prepare a Compendium of New South Wales Forest Research.	By the first five-yearly review
105	New South Wales and the Commonwealth to lodge archival copies of Data.	Within six months of signing
Att 1A & Att 1 B Point 4	NSW to prepare Plans of Management for Crown Reserves.	By 1 January 2005
Att 1 A Point 5	NSW will finalise boundaries of CAR reserve to enable implementation.	Within six months of signing
Att 1A Point 8 & Att 1B Point 12	New South Wales to establish all Dedicated Reserve and Informal Reserve components of the CAR Reserve System.	Within six months of signing
Att 3 point 4	NSW will complete the Threat Abatement Plan for the European Red Fox.	By July 2000
Att 2 Table 1	New South Wales to develop Recovery Plans for species listed in Table 1 of Attachment 2.	Within five years of signing
Att 6 1(p)	New South Wales to publish a State of Parks report.	By April 2001

Clause	Action	Timeline
Att 6 2(b)	NSW will publish of Eco Field Guides for the Upper North East Region and the Lower North East Region.	By 30 June 2000
Att 6 2(c)	New South Wales to publish the <i>Native Forest Silviculture Manual</i> (SFNSW).	By 31 December 2000
Att 6 2(d)	New South Wales to document and publish a description of the NSW Forest Management System covering Public and Private Lands.	In time for the first five-yearly review
Att 6 2(e)	New South Wales to publish a description of the methods and results of calculating Sustainable Yield on Public Land.	By 1 December 2006
Att 6 2(e)	New South Wales to publish independent audits of Sustainable Yield as outlined in Attachment 12.	For the second and subsequent five-yearly reviews
Att 6 2(f)	New South Wales to table in each House of Parliament an annual report on the New South Wales <i>Upper North East Region Forest Agreement</i> and <i>Lower North East Region Forest Agreement</i> in accordance with the <i>Forestry and National Park Estate Act 1998</i> (NSW) which will include an ESFM report and the outcomes of compliance with any Integrated Forestry Operations Approval for the regions.	Annually
Att 8 1(a)	NSW NPWS will develop and Environmental Management System for lands dedicated under the NPWS Act 1974.	By April 2004
Att 8 1(b)	SFNSW develop a native Forest Management System as an Environmental Management System.	By April 2001
Att 8 1(l)	New South Wales to incorporate codes of practice that address in an integrated fashion bush and other fires within Regional ESFM Plans and plans of management for areas dedicated under the <i>National Parks and Wildlife Act 1974</i> (NSW).	By the first five-yearly review
Att 8 1(m)	New South Wales to incorporate within the Regional ESFM Plans and Plans of Management under the NPWS Act 1974 integrated feral animal and weed control programs.	By the first five-year review.
Att 8 1(n)	New South Wales to establishing a process, including public reporting, for regular audits of compliance and reviews of Codes of Practice, Eco-Field Guides and/ Regional Prescriptions.	By December 2002

Clause	Action	Timeline
Att 8 1(n)	New South Wales to undertake audits as described above.	By the first and subsequent five-yearly reviews of the Agreement
Att 8 1(o)	NSW will establish demonstration areas in both the Upper North East Region and the Lowr North East Region for illustrating silvicultural practices and the suite of silvicultural regimes practiced.	By April 2001
Att 8 1(q)	NSW will develop a model to predict recruitment and maintenance of habitat trees over time.	By the end of 2010.
Att 8	NSW will publish the <i>Native Forest Silviculture Manual</i> (SFNSW).	By 31 December 2000
Att 12 Part B 15	SFNSW will complete the enhancement of FRAMES, commission and publish an independent review of the enhanced system and review the timber and annual volume to be harvested from 2007 – 2018.	By 1 December 2006.
Att 12 Part C 19	Subject to availability of suitable land NSW will purchase Private Lands and/ or timber rights to supply High Quality Large Sawlogs and Large Veneer Logs.	By the end 2004
Att 12 Part C 19	Subject to availability of suitable land NSW will establish at least 10,000ha of hardwood Plantations.	By the end 2004
Att 12 Part D 21 Dot 5	Use best endeavours to undertake an inventory of private forests to determine the basis of yield of wood products.	Within five years of signature.
Att 12 Part E 22 Dot 4	Report on the annual production of all timber products.	Annually
Att 12 Part E 22 Dot 6	Monitor FRAMES through comparison of Actual versus predicted volumes.	Annually
Att 12 Part E 23	NSW will undertake independent audits of the progress of the Sustainable Wood Supply Strategy.	To be completed in time for the 2 <sup>nd</sup> and 3 <sup>rd</sup> five-yearly reviews.

The milestones in this Attachment should be read in conjunction with the relevant clauses in the Agreement.



**PUBLIC REPORTING AND CONSULTATIVE MECHANISMS**

**Existing Commitments**

- 1 The following processes currently include public reporting and consultative mechanisms relevant to forest management in both the Upper North East and Lower North East regions:
  - (a) preparation and amendment of Forest Agreements under the *Forestry and National Park Estate Act 1998* (NSW);
  - (b) preparation and amendment of Regional ESFM Plans under the Forestry Regulation 1999 (NSW) under the *Forestry Act 1916* (NSW);
  - (c) preparation and amendment of plans of management under the *National Parks and Wildlife Act 1974* (NSW);
  - (d) preparation and amendment of Integrated Forestry Operations Approvals under the *Forestry and National Park Estate Act 1998* (NSW);
  - (e) preparation and review of Codes of Practice;
  - (f) preparation, amendment and review of District Bushfire Management Committee plan of operations and Bush Fire Risk Management Plans (*Rural Fires Act 1997* (NSW));
  - (g) activities associated with the implementation of the *Threatened Species Conservation Act 1995* (NSW);
  - (h) public exhibition of identified wilderness and areas proposed for declaration under the *Wilderness Act 1987* (NSW);
  - (i) nomination, preparation and possible contraventions of Recovery Plans and Threat Abatement Plans prepared under the *Endangered Species Protection Act 1992* (C'wth);
  - (j) listing of places on the Register of the National Estate under the *Australian Heritage Commission Act 1975* (C'wth);
  - (k) publication of State of the Environment reports including reporting against performance measures, Sustainability Indicators, audits, public participation, research and reviews;
  - (l) consultation with the Aboriginal community in relation to Aboriginal cultural heritage information;
  - (m) catchment management committees

- (n) production of annual ESFM Reports on progress for meeting targets in Regional ESFM Plans and reporting on criteria, indicators and targets for the Upper North East and Lower North East regions in accordance with the New South Wales *Upper North East* and *Lower North East Region Forest Agreement*.
- (o) production of annual Environmental and Social Values Report at a statewide level on the progress and performance of State Forests of NSW in accordance with the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*.
- (p) publishing a New South Wales State of Parks report by April 2001.
- (q) production of an annual report for the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement* with respect to Ecologically Sustainable Forest Management in the region, and compliance with any Integrated Forestry Operations Approval for the region. As required by the *Forestry and National Park Estate Act 1998* (NSW).

#### **Additional reporting and consultative mechanisms**

- 2 Additional reporting and consultative mechanisms to be implemented by the State include:
  - (a) development of public participation mechanisms through the introduction of new partnerships (for example, the International Model Forest Network);
  - (b) Publish Eco-Field Guides for the Upper North East and Lower North East regions by 30 June 2000;
  - (c) Document the basis for silvicultural practices and publish the native *Forest Silviculture Manual* (SFNSW) by the 31 December 2000.
  - (d) documenting and publishing a description of the New South Wales Forest Management System covering Public and Private Lands in time for the first five-yearly review.
  - (e) publishing by 1 December 2006 a description of the methods and results of calculating Sustainable Yield on Public Land, and publishing in time for subsequent five-yearly reviews independent audits of Sustainable Yield, as outlined in Attachment 12.
  - (f) from 1999 the New South Wales government will table in each House of Parliament an annual report on its *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement* which will include an ESFM report and the outcomes of compliance with any Integrated Forestry Operations Approval for the region.

**RESEARCH PRIORITIES**

- 1 The major priority of future research in New South Wales will be an understanding of environmental impacts and the development of appropriate mechanisms to monitor and continually improve the sustainability of forest management practices. Accordingly, statewide research will continue on the following themes:
  - (a) silviculture;
  - (b) flora and fauna conservation;
  - (c) soil and water conservation;
  - (d) fire ecology;
  - (e) stem defect and wood quality in regrowth forests;
  - (f) climate change;
  - (g) biological inventory;
  - (h) value-added end use;
  - (i) Sustainability Indicators;
  - (j) indigenous and non-indigenous heritage.

**ATTACHMENT 8**  
**(clauses 47, 48, 108.8, 112, Attachment 4 and Attachment 12)**

**IMPROVEMENTS TO NEW SOUTH WALES' FOREST MANAGEMENT  
SYSTEMS**

- 1 New South Wales will further improve its Forest Management System across forest management agencies and land tenures by:
  - (a) NSW National Parks and Wildlife Service developing an Environmental Management System (EMS) by April 2004, for lands dedicated under the *National Park and Wildlife Act 1974* (NSW) consistent with the following broad principles:
    - an appropriate environmental policy should be in place;
    - the environmental aspects arising from the organisation's past, existing or planned activities, products or services should be identified to determine the environmental impacts of significance;
    - relevant legislative and regulatory arrangements should be identified;
    - priorities should be identified and appropriate environmental objectives and targets set;
    - a structure and program(s) to implement the policy and achieve objectives and targets should be established;
    - planning, monitoring, corrective action, auditing and review activities should be facilitated to ensure both that the policy is complied with and that the environmental management system remains appropriate;
    - the system should be capable of adapting to changing circumstances.
  - (b) State Forests of NSW developing, by April 2001 a Native Forest Management System as an EMS, to a standard which would allow certification of the system under the ISO 14000 series.
  - (c) Implementing the New South Wales Biodiversity Strategy, taking into account the issues raised during its public consultation phase.
  - (d) Establishing Regional Vegetation Management Plans which are coordinated with other management plans, and which allow for specific activities to occur under Codes of Practice.
  - (e) Improving the coordination and effective use of resources allocated to research for ESFM in New South Wales.

- (f) Providing ongoing formal public participation processes to raise awareness and understanding of ESFM and how it can be achieved in New South Wales forests.
- (g) Developing and implementing an information management system to facilitate the sharing of data for the use by all agencies, including local government, involved in the management of forested land.
- (h) Improving the cooperation and coordination between Government agencies so as to achieve integrated management for conservation, wood production, and other values in both public and private forests.
- (i) Improving administrative arrangements to ensure Ecologically Sustainable Forest Management on private forests including providing technical advice, extension services and research including assistance in the estimation of Sustainable Yield.
- (j) Maintaining and enhancing competency based training for field staff and forest operators in flora and fauna identification and management, heritage management, soil and water protection, silvicultural training, inventory and management information systems and product segregation.
- (k) Developing Regional ESFM Plans consistent with the New South Wales *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*, any applicable Integrated Forestry Operation Approval, statutory requirements, and including:
  - Specification and description of the range of values and processes to be managed, including objectives and targets of management;
  - Descriptions of and links to Codes of Practice, Eco-Field Guides and the *Native Forest Silviculture Manual* (SFNSW);
  - Determination of Sustainable Yield of wood values;
  - Ongoing arrangements for monitoring activities specified in the plan and reporting against plan objectives and targets;
  - Processes for regular reviews of the plans involving public consultation.
- (l) Incorporating by the first five-yearly review within Regional ESFM Plans and plans of management under the *National Parks and Wildlife Act 1974* (NSW), provisions that address in an integrated fashion bush and other fires to ensure ecologically sustainable management of the forest estate. These plans will be consistent with the NSW Biodiversity Strategy and any Bush Fire Risk Management Plans.
- (m) Incorporating by the first five-yearly review within Regional ESFM Plans and plans of management under the *National Parks and Wildlife Act 1974* (NSW), integrated feral animal and weed control programs.

- (n) Establishing a process, including public reporting, for regular audits of compliance and reviews of Codes of Practice, Eco-Field Guides and/ Regional Prescriptions by December 2002 and undertake audits at first and subsequent five-yearly reviews of the Agreement. This process is to be included in any environmental management system, including the SFNSW Native Forest Management System.
  - (o) Establishing by April 2001 demonstration areas in both the Upper North East and Lower North East regions for illustrating silvicultural practices and the suite of silvicultural regimes referred to in the *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement* for use in field supervisor training and public education.
  - (p) Continuing to develop a suite of computational tools to help manage NSW forests at operational scales for a range of values including wood yield, growth stage, water quality and quantity, natural and cultural heritage and wildlife habitat.
  - (q) Developing by the end of 2010, a model to predict recruitment and maintenance of habitat trees over time.
  - (r) Determining the range of silvicultural prescriptions that can be appropriately applied to each strata or forest type based on review, field based sampling and principles of sustainability. These prescriptions will be used to inform FRAMES.
  - (s) The *Native Forest Silviculture Manual* (SFNSW) to be published by 31 December 2000 will outline the scientific basis for site specific silvicultural regimes and the silvicultural decisions and guidelines to where such regimes are to be applied. Parties note that a peer review process will form part of the public consultation process as identified in Attachment 6.
- 2 The Parties note that procedures for reviewing Integrated Forestry Operations Approvals are set out in the *Forestry and National Park Estate Act 1998* (NSW).
  - 3 The Parties note that the terms of an Integrated Forestry Operations Approval will have primacy over other elements of the SFNSW Native Forest Management System. The Parties recognise that the SFNSW Native Forest Management System (including Codes of Practice, Eco-Field Guides, the Regional ESFM Plan, the order of works plan, and harvesting plans), will be the mechanism for implementing the terms of the Integrated Forestry Operations Approval on State forest.
  - 4 Additional improvements to the NSW FRAMES System are also outlined in Attachment 12.

**MONTREAL PROCESS CRITERIA FOR THE CONSERVATION AND  
SUSTAINABLE MANAGEMENT OF TEMPERATE AND BOREAL  
FORESTS**

- Criterion 1: Conservation of biological diversity
- Ecosystem diversity
  - Species diversity
  - Genetic diversity
- Criterion 2: Maintenance of productive capacity of forest ecosystems
- Criterion 3: Maintenance of ecosystem health and vitality
- Criterion 4: Conservation and maintenance of soil and water resources
- Criterion 5: Maintenance of forest contribution to global carbon cycles
- Criterion 6: Maintenance and enhancement of long term multiple socio-economic benefits to meet the needs of societies
- Production and consumption
  - Recreation and tourism
  - Investment in the forest sector
  - Cultural, social and spiritual needs and values
  - Employment and community needs
- Criterion 7: Legal, institutional and economic framework for forest conservation and sustainable management

A framework for development of these criteria and indicators is described in the document, *A Framework of Regional (Sub-National) Level Criteria and Indicators of Sustainable Forest Management in Australia*, (Department of Primary Industries and Energy 1998)

**MANAGING LANDS OF SIGNIFICANCE TO INDIGENOUS PEOPLE**

- 1 New South Wales agrees to continue to manage CAR Reserve System lands with significance to Indigenous people according to the following principles:

- It is recognised by both the Commonwealth and State Government that the sum of the cultural heritage of the Aboriginal people of New South Wales is not confined to archaeological sites and artefacts but may include natural values such as flora, fauna and landforms.
- The Parties are aware of the aspirations Aboriginal people have in regards to ownership and/or management of traditional lands, and are committed to a working relationship with Aboriginal communities for co-operative management of Government managed lands as agreed which may include lands managed by NSW National Parks and Wildlife Service and State Forests of NSW.

An integral part of this commitment to co-operative management is the increase in opportunities for Aboriginal people to gain valuable land management training and subsequent employment, where possible, to ensure that Aboriginal people can continue to strategically manage their traditional country.

- The New South Wales Government has provided for Aboriginal people to own lands reserved under the *National Parks and Wildlife Act 1974* (NSW) that are of cultural significance to them through the *National Parks and Wildlife Amendment (Aboriginal Ownership) Act 1996* (NSW). Both Parties appreciate that there are National Parks and reserves within the Upper North East and Lower North East regions that may meet the terms of the Act, and actively advocate the assessment of the Upper North East and Lower North East regions for this purpose.
- Both Parties support initiatives between Government agencies (both State and Local) and Aboriginal communities, that will both strategically manage and preserve New South Wales' rich cultural heritage, and ensure that all development of CAR Reserve System appropriately considers Indigenous values.
- Aboriginal parties will be invited to participate in any new partnership arrangement evolved out of this Agreement for the management of CAR Reserves.
- The Parties recognise that Aboriginal people may have the opportunity to obtain or maintain access to Government managed lands for recreational, as well as traditional values and uses, and ceremonial purposes, and that



opportunities may exist for the commercial development of areas of cultural/economic significance.

**EMPLOYMENT AND INDUSTRY DEVELOPMENT INITIATIVES**  
**BY THE NSW GOVERNMENT FOR**  
**THE UPPER NORTH EAST AND LOWER NORTH EAST REGIONS**

**1. Plantation Expansion**

Under this initiative an additional 10,000 hectares of eucalypt Plantations for long-term sawlog production on suitable available land will be established by SFNSW. Benefits, including providing a long-term resource for the timber industry, contribution to a reduction in Greenhouse emissions and provision of a possible additional resource in the form of tradeable carbon offsets are expected. This proposal would also contribute to meeting the National Plantations 2020 policy to significantly increase the area of plantation in New South Wales. The initiative involves purchase of suitable properties for plantation establishment and joint venture schemes as well as funding for plantation maintenance. Additional employment would be available in plantation establishment and maintenance, site preparation and land management.

*Funding Commitment:* \$6 Million per annum until the year 2004 to establish about 10,000 hectares for long term sawlog production.

*Predicted employment benefit:* At least 25 new (mostly seasonal) jobs.

**2. North Coast Thinnings Program**

The NSW Government's Interim Forestry Assessment decision (23 September 1996) provided for tenders to be called for the purchase of quantities of Forest Products produced from silvicultural thinning operations in the hardwood Plantations and regrowth forests of the north coast of New South Wales.

The program's objective is to maximise the recovery of timber suitable for solid wood uses, including the production of sawlogs, poles and other timber products, to ensure that the highest value is obtained from the timber resource.

These thinning operations will have the additional benefits of improving forest productivity, assisting regeneration, creating new employment opportunities in rural communities on the north coast and increasing the economic viability of the Forestry Operations.

The timing of the program's implementation is subject to suitable market conditions prevailing.

**3. Log Haulage Assistance**

The addition of traditional log producing areas to the Conservation Reserve System will in some cases require the transport of timber from areas outside some sawmills'

traditional economic haulage zone. Log haulage assistance is being provided to established millers during a transition period of 5 years to assist them to adjust their businesses to new supply patterns. This initiative is designed to limit any sudden increase in transport costs to millers from increased log haulage distances required to continue appropriate supply levels.

*Funding Commitments:* NSW has allocated up to \$1 million per annum over a five-year period.

#### **4. Private Forest Management Unit**

Within twelve months of signing this Agreement a private forest management unit will be established within State Forests to enhance the level of sustainability of commercial private forest management. The unit would be responsive to government policy commitments under the National Forest Policy Statement and the National Greenhouse Strategy.

The private forest management unit within Native Forests Division will provide policy and planning advice to private forest owners in the following areas:

- Management - Advice on planning, Forest Practices, education, Commercial Viability, Visual management, Water Quality, Biodiversity Conservation, Financial;
- Special Services – Timber Harvesting, Marketing, Training, Harvest Planning, Inventory;
- Tree Growth – Advice on pruning, thinning, pest control, Shelterbelts, Native Forest and Plantation; and
- Tree Establishment.

*Funding Commitment:* \$1,900,000 over five years, after which time it is expected the Unit would be self-funding.

*Predicted employment benefit:* Establishment of the Private Forest Unit will employ five persons for SFNSW.

#### **5. Management of National Park Additions**

NSW recognises a priority commitment to on-going and long term management of the new park additions. The positions outlined below reflect the on-going intensive visitor management needs of the reserves (around 5 million visits per annum), the ecologically sustainable forest management commitments arising from the RFA, and the long term works and infrastructure needed for the new reserve areas.

NSW has committed to capital investment of \$15 million for 3 years for basic access, upgraded visitor facilities, boundary fencing, plant and equipment, and infrastructure improvements, e.g. works depots and safety works. NSW has made a further commitment to staff resources of \$8 million for the 1999 – 2000 financial year and

\$10 million recurrent for subsequent years. This funding will employ approximately 90 positions for the first year, increasing to approximately 105 in subsequent years. The positions comprise field officers, senior field officers, rangers, park planners, fire, pest and neighbour relations officers across seven existing National Parks and Wildlife Service Districts at Armidale, Grafton, Dorrigo, Glen Innes, Lismore, Port Macquarie and Raymond Terrace. A new sub-district office at Walcha and field operations group at Tenterfield are also planned.

*Funding Commitment:* A total of \$43 million over 3 years with possible extensions to funding (subject to recurrent funding).

*Predicted employment benefit:* A total of 90 to 105 people over 3 years with possible extensions (subject to recurrent funding)

## **6. Aboriginal Employment Opportunities**

### **Aboriginal Cultural Heritage Officers**

Four Aboriginal cultural heritage officers are to be employed equally between State Forests and National Parks and Wildlife Service, in the Upper North East and Lower North East Regions. These officers will give greater protection to cultural heritage and foster a close working partnership between the Aboriginal community and the Government.

Foremost in the tasks of the cultural heritage officers will be the surveying, care and maintenance of significant sites, permanent recording of their locations and consultation over protection mechanisms for these sites with management agencies. This initiative will encourage increased participation of the local Aboriginal community in forest management decisions.

The initiative also includes a number of traineeships to assist Aboriginal trainees gain land management skills. It is anticipated that this training should provide skills, which will enhance continued employment and promotional opportunities in the management of forested land.

*Funding Commitment:* \$520 000 per annum over 5 years

*Predicted employment benefit:* 10 positions in total; 4 Aboriginal Cultural Heritage officers in total equally distributed between agencies and RFA regions, 6 traineeships over both Upper and Lower North East.

## **7. Resource Inventory**

Ongoing inventory of existing timber resource is a fundamental requirement of the Regional Forest Agreement and will be used to support ongoing management by SFNSW of the timber production forest. Advantages include:

- the ability to better model the growth of the forest through time,

- a more accurate understanding of the timber resource which would enable industry to plan and develop downstream value-adding with more precision and certainty; and
- a better knowledge of the timber resource which would enabling scheduling of operations and shifting of multi-aged forest crews to thinning systems;

A significant component of this initiative in its initial stages will involve the training of displaced timber workers in resource inventory techniques.

*Funding Commitment:* \$500,000 per annum for 5 years.

*Predicted employment benefit:* 10 new positions for a period of five years for SFNSW.

## **8. Biomass Energy Generation and Charcoal Production**

NSW will investigate opportunities for the use of sawmill residue, waste material from sawlog-driven logging operations and plantation thinning and harvesting in the Upper North East and Lower North East regions for potential use in biomass energy generation (or co-generation in existing power generating facilities) and for the production of charcoal for use in industrial processes. Negotiations concerning supply of resource for such ventures are currently taking place.

The recently introduced *Natural Resources Legislation Amendment (Rural Environmental Services) Act* (1999) NSW will, through amendments to the *Mining Act* (1992) NSW and *Electricity Supply Act* (1995) NSW, provide enhanced opportunities for investment and job creation in the emerging biomass electricity industry in NSW. In addition to facilitating the use of sawmill waste and forest residues for renewable energy generation, it will also allow electricity retailers to use carbon sequestration as an eligible activity to meet their licence conditions and explicitly includes biomass as a greenhouse reduction measure.

It is also predicted that the market for high-grade charcoal will increase in the future, given the requirements for steel-making and manufacture of silicon metals. Charcoal production can also utilise sawmill and forest wastes increasing local value adding within the timber industry.

Sustainable forest harvesting practices will not be compromised by the utilisation of forest wood residues and waste timber in both the above initiatives, these materials being already in existence as part of the sawlog-driven harvesting process. The markets would also provide an additional and competitive avenue for silvicultural thinnings.

**LONG-TERM TIMBER SUPPLY STRATEGY AND SUSTAINABLE  
YIELD SYSTEMS AND PROCESSES**

**Introduction**

1. The Long-term Timber Supply Strategy for the Upper North East and Lower North East regions recognises the need to achieve environmental, social and economic objectives. It provides a basis for the timber industry to develop with a more secure wood supply. The cornerstone of the strategy is secure contractual arrangements for 20 years. Timber supplies from public native forests will increasingly be supplemented by plantation-sourced timber and from purchased Private Land.
2. Under the strategy, timber supplies will be maintained at 1999 contracted levels for 20 years. Subsequent contracts will be based on the long-term Sustainable Yield. Investment will reflect industry's response to the stable operating environment and the changing resource profile including an increasing proportion of sawlogs of smaller diameter.
3. NSW Government commitments provide for the supply of High Quality Large Sawlogs and Large Veneer Logs through Wood Supply Agreements. Supply commitments specified in these Wood Supply Agreements will be subject to a review by 1 December 2006 (see Part B).
4. This Agreement recognises that current native forest resources and current plantation resources are a major part of the long term timber resource. It is estimated that the 100 year supply levels after 2018 will average approximately 70,000 m<sup>3</sup> per annum in the Upper North East Region and 113,500 m<sup>3</sup> per annum in the Lower North East Region of High Quality Large Sawlogs and Large Veneer Logs from existing native forests and Plantations on State forests and other land owned by SFNSW, assuming harvesting under existing terms and conditions.
5. Both Governments aim to provide additional sawlog and other wood products that will become available through purchase by SFNSW of private native forest property and through Plantations established on purchased land or as joint ventures. These measures are currently predicted to bring the average annual available High Quality Large Sawlog and Large Veneer Log yield from State forests beyond the 20 years of this Agreement to within approximately 15 per cent of the 20 year contracted levels for Upper North East Region and Lower North East Region.
6. NSW is also committed to the supply of Forest Products such as firewood, fencing materials, seed, beekeeping products, cut wildflowers, commercial bush tucker and tea tree oil under relevant statutory controls.

## **Part A Timber Supply Commitments (Public Land)**

- 7 The NSW Government has entered into 20 year Wood Supply Agreements, which commenced January 1999, that commit to the supply of 129,000 m<sup>3</sup> per annum for 20 years in the Upper North East Region (of which 20,000 m<sup>3</sup> will be sourced from the Lower North East Region) and 140,000 m<sup>3</sup> per annum for 20 years in the Lower North East Region (net of the supply to Upper North East Region) of High Quality Large Sawlogs and Large Veneer Logs. These volumes are subject to review as set out in Part B of this attachment.
- 8 Additional volumes of 2,846 m<sup>3</sup> of High Quality Large Sawlogs to mills in the Upper North East Region and 5,911m<sup>3</sup> to mills in the Lower North East Region are to be supplied under a transitional "top-up" arrangement in 2000, to assist industry adjustments.
- 9 The 20 year Wood Supply Agreements provide industry with the certainty to invest and plan for long term operations. Wood Supply Agreements contain specific commitments for the supply of High Quality Large Sawlogs and Large Veneer Logs and may result in compensation in the event of failure to supply. The Wood Supply Agreements are specifically referred to in the NSW Government's *Upper North East Region Forest Agreement* and *Lower North East Region Forest Agreement*. The *Forestry and National Parks Estate Act (1998)* sets the framework for the development of the Forest Agreements and constrains the circumstances under which the Forest Agreements can be altered.
- 10 Contracted commitments and other arrangements associated with Wood Supply Agreements allow for the carrying forward of volumes under-cut or over-cut in any one year.
- 11 High Quality Small Sawlogs will be supplied at levels greater than 1999 contracted volumes. In addition NSW will use their best endeavours to provide a greater proportion of the High Quality Small Sawlogs resource through Wood Supply Agreements to enhance security for processors.
- 12 Arrangements for pulp grade timber include an amount of approximately 30,000 tonnes in the Upper North East Region per annum and approximately 152,000 tonnes in the Lower North East Region per annum, being a quantity which reflects current supply levels at the date of this Agreement. In addition, existing supply arrangements for other Forest Products (including poles, piles, girders, High Quality Small Sawlogs, low quality timber and small veneer logs) from forest operations will be honoured.
- 13 It should be noted that, the quantities referred to in the above paragraph (paragraph 12) simply reflect supply arrangements existing at the date of this Agreement. Other quantities of Forest Products will be supplied as a result of the management and harvesting of forests to meet the volumes specified in the Wood Supply Agreements for High Quality Large Sawlogs and Large Veneer Logs (paragraph 7). This will not result in a net increase in the High Quality Large Sawlog or Large Veneer Log volumes specified in paragraph 7. Some of the Industry Initiatives

referred to in Attachment 11 may create important markets for some of these materials.

- 14 NSW will use their best endeavours to provide increased resource security for processors using logs not currently covered by Wood Supply Agreements by the first five year review.

## **Part B FRAMES and Wood Supply Reviews**

- 15 NSW, through SFNSW, agrees to complete the following by 1 December 2006:
- Update the FRAMES information base and enhance the FRAMES Models consistent with Part E of this Attachment;
  - Commission and publish an independent review of the enhanced systems and process, models, information base, and assumptions which contribute to the FRAMES system;
  - Using the results of the above FRAMES enhancement and review, NSW will review the timber resource and the annual volume which may be harvested from 2007 – 2018 consistent with the overall Sustainable Wood Supply Strategy to achieve a long-term Sustainable Yield and to optimise sustainable use objectives consistent with this Agreement.
16. The two reviews above will be based on the Sustainable Wood Supply Strategy, the area available for harvesting in the *Upper North East Region Forest Agreement 1999* and *Lower North East Region Forest Agreement 1999* as defined through net harvestable area exclusions and the Integrated Forestry Operations Approvals (1999). The reviews will also consider the contribution to the Sustainable Wood Supply Strategy of any additions to the land available for harvesting resulting from the purchase of Private Land and development of new public hardwood Plantations (see Part C).
17. Informed by the review, NSW will consider additional supplementation of High Quality Large Sawlogs and Large Veneer Logs and have regard to the long-term Sustainable Yield after 2018.
18. Any changes in the contracted volumes specified in clause 79 resulting from the review process outlined in Clause 81 will be incorporated into this Agreement through clause 8 and will be advised to holders of Wood Supply Agreements prior to 1 December 2006. These volumes will then be available to industry until the end of 2018.

## **Part C Hardwood Sawlog Supply Supplementation Strategy**

- 19 The Parties agree that the following long-term hardwood sawlog supply supplementation strategy will be implemented to allow the supply of more timber and raise the long term Sustainable Yield of hardwood sawlogs from public forests in northern New South Wales;
- Subject to availability of suitable land, New South Wales will spend the allocated \$18 million between 1999 and 2004 to purchase Private Land and/or timber rights to provide approximately 180,000 m<sup>3</sup> of High Quality Large



Sawlogs and Large Veneer Logs for the Upper North East and Lower North East regions within the term of this Agreement.

- Subject to the availability of suitable land, New South Wales will spend the allocated \$30 million by 2004 to establish at least 10,000 ha of hardwood Plantations across both the Upper and Lower North East Regions to supplement supplies of High Quality Large Sawlogs and Large Veneer Logs from public forests. This initiative is expected to produce approximately 125,000m<sup>3</sup> per annum for 10 years commencing in approximately 40 years time.

20 The following supplementation activities will also contribute to the Sustainable Wood Supply Strategy volumes and the long term Sustainable Yield:

- Adoption of a North Coast Thinnings program (Attachment 11) to increase the recovery of timber suitable for solid wood uses and increasing the economic viability of Forestry Operations; and
- Carbon sequestration initiatives to enhance plantation development and subsequent timber availability.

#### **Part D Private Forest Resource Initiatives**

21 The Parties recognise that industry development based on private forest resources including Plantations will be facilitated by the following measures:

- The State will improve administrative arrangements and cooperation and coordination by State agencies (refer to Attachment 8) to facilitate the timber industry utilising private forest resources. Education programs will be developed to deal with ecologically sustainable management issues and clearly relate these to management requirements for conservation and to the codes of forest practice governing activities in both public and private forests.
- As a means of encouraging private forestry development, consistent with clause 46, the State will develop a regulatory framework that enables a more efficient and integrated approval process to allow for effective private forestry development. Codes of Practice for private Plantations and private native forests will be in place within five years in accordance with clauses 57 and 58. The State will also provide advice regarding marketing and pricing.
- NSW will ensure that under the *Native Vegetation Conservation Act* (1997) and consistent with clause 56 of this Agreement, regional vegetation management plans covering Private Lands form a basis for strategic regional planning of private native forestry. With appropriate public involvement, and consistent with the *Native Vegetation Conservation Act* (1997) the Regional Vegetation Management Committees will pursue planning policies that provide for appropriate long term, secure, management provisions for private native forests. The management plans should provide for harvesting for commercial wood production to be an “as of right” use where appropriate and

subject to relevant Codes and Ecologically Sustainable Forest Management consideration.

- NSW will ensure that an integrated Code of Practice is developed for plantation activities across all tenures, under the *Plantations and Reafforestation Act* (1999). The need for local government planning consent for plantation establishment and reafforestation projects has been replaced through the new legislation by a stand alone authorisation process administered by the NSW Department for Land and Water Conservation (DLWC). Applications to establish a plantation that comply with the Code of Practice will be given approval by DLWC within 14 days. Existing Plantations can also continue to obtain certainty for the purposes of harvesting as per the *Timber Plantations (Harvest Guarantee) Act* (1995), and similar provisions included in the *Plantations and Reafforestation Act* (1999).
- Parties agree that a private forest inventory of northern NSW to determine the basis of yield of wood products from Private Land is required. Parties will use their best endeavours to promote an inventory of private forests, with the agreement of forest owner groups, with the objective of having an inventory in place within five years.

#### **Part E            FRAMES, Sustainable Yield Systems and Processes**

22 The NSW Government will:

- Implement across the Upper North East and Lower North East regions, site specific silvicultural regimes of light to medium Australian Group Selection and light, medium and heavy Single Tree Selection and thinning.
- Reflect in the FRAMES models the above site-specific silvicultural regimes (refer paragraph 24, point 6).
- Review the FRAMES systems and wood supply by 1 December 2006 to predict timber yields from 2007 – 2018 consistent with Part B of this Attachment.
- Report the annual production of all timber products.
- Undertake additional inventory plot measurement consistent with FRAMES principles to improve the accuracy of volume estimates at the Regional Level, funded at \$500,000 per year for the first five years of this Agreement.
- Monitor FRAMES performance through comparison of actual versus predicted volumes each 12 months for 20 years.

23 NSW will commission independent audits of the progress of the Sustainable Wood Supply Strategy to be completed and published in time for the second and third five-yearly reviews.

24 New South Wales will consult with the Commonwealth in the establishment of an ongoing FRAMES development program for the Upper North East and Lower North East regions. It is expected that this program will be implemented by 1 December 2006 and will include the following elements:

- Improved inventory base and modifier models. Regular monitoring of predicted versus actual annual product yields and component measures as

described in Section 3.5 of the New South Wales *Upper North East Forest Agreement* and the *Lower North East Forest Agreement*;

- Increased number and coverage of permanent growth plots to cover an appropriate range of sites, strata and silvicultural systems;
- Continued permanent growth plot measurement to update growth, mortality and recruitment models and development of new models to reflect changing silviculture (including thinning);
- Development and implementation of a Native Forest Management Information System (MIS) that addresses silvicultural and harvesting planning and progressively improves estimates of net harvestable area, management history, silvicultural requirements of stands and operational feasibility. The system should also inform monitoring and reporting against Sustainability Indicators consistent with clause 49 of this Agreement;
- Testing of simulation models against independent data sets and undertake sensitivity analysis to help inform error limits of Sustainable Yield;
- Refine the FRAMES simulator and scheduler so that it selects and reports a range of silvicultural prescriptions and yield tables within strata, that reflect operational practices;
- Better reporting within FRAMES of area harvested, residual stand characteristics and modelled silviculture and harvesting regimes;
- Implementing a process to take into account the risks of fire, differing regulatory arrangements and other potential impacts on Sustainable Yield;
- Documentation of systems, processes, models and databases used in the calculation of Sustainable Yield.
- Processes for appropriate internal reviews and audits of Sustainable Yield as part of the SFNSW Native Forest Management System.

## **DATA AGREEMENT**

### **Purpose**

- A This Data Agreement between the Commonwealth and New South Wales relates to the Data collected, developed for, and used in, the development, implementation and monitoring of the Regional Forest Agreements for New South Wales.
- B This Data Agreement specifies access, ownership, custodianship, updating and archiving arrangements for the Data for all four RFA regions within New South Wales.
- C Separate Schedules will be added to the Data Agreement following completion of each RFA. These Schedules, which address the Data specific to each RFA region, and which will be completed on the dates specified in clause 4.6, are as follows:
- Eden Region (Schedule 1);
  - Upper North East Region (Schedule 2);
  - Lower North East Region (Schedule 3), and
  - Southern Region (Schedule 4).

Schedules will identify the name, custodian, ownership and access including for reports and software.

### **1. Definitions and Interpretation**

- 1.1 Unless otherwise stated to the contrary, the definitions contained in the Agreement will also apply to this Data Agreement.
- 1.2 A reference to a clause means a clause of this Data Agreement, unless specified to the contrary.
- 1.3 The following additional definitions will apply to this Data Agreement:

*Access Category:* means a category of access for an item of Data as indicated in a Schedule. The Access Categories are Restricted Data, Licensed Data and Unrestricted Data.

*Archived Data:* means all Data used to develop the Agreement, and which must be archived in accordance with clause 4.

*Assessment Data:* means all Comprehensive Regional Assessment and integration project outputs and products including reports, required to complete the NSW Regional Forest Agreements (as determined by the Joint Steering Committee).

<i>Custodian:</i>	means a custodian of Data, or component of that Data, is an individual or organisation having the responsibility to ensure that the Data is collected, maintained and distributed according to this Data Agreement.
<i>Data:</i>	means all Source Data, Derived Data, Assessment Data, and models listed in the Schedules, .
<i>Data Agreement</i>	means these clauses 1-9 (inclusive) and all Schedules.
<i>Data Archive:</i>	means a secure repository for Archived Data which meets the standards required by clause 4.
<i>Derived Data:</i>	includes Data which is obtained by analysis, modelling, aggregation or other complex manipulation of Data. A derived Data set can have either Source Data or other derived Data sets as inputs to its creation.
<i>Existing Data:</i>	means Data and/or Data sets that existed in either Commonwealth agencies or NSW State agencies prior to commencement of Comprehensive Regional Assessments or integration projects.
<i>Jointly Owned Data:</i>	means Data jointly funded by the Parties to inform the development of or implementation of these RFAs and identified as jointly owned in the Schedules.
<i>Licence:</i>	means a document which authorises the use of Data or a number of Data sets for specified purposes, and specifies any restrictions on the use of Data.
<i>Licensed Data:</i>	means Data designated in a Schedule as Licensed.
<i>Metadata:</i>	means information about Data or Data sets including descriptions or specifications of Source Data or derived information. Metadata are to be recorded in a standard format or as agreed documentation.
<i>New Data:</i>	Data that has been created after the signing of an RFA.
<i>Owner:</i>	the individual(s), organisation(s) or jurisdiction(s) that holds the intellectual property rights over a particular set of information or Data.
<i>Unrestricted Data:</i>	means Data designated in a Schedule as being Unrestricted.
<i>Restricted Data:</i>	means Data which is considered sensitive by an Owner and which is designated in a Schedule as being Restricted. Restricted Data includes any Data to which confidentiality and limitation on use conditions apply.
<i>RFA Purpose:</i>	includes purposes relating to updating, implementation, review, monitoring or reporting of RFAs and includes provision of advice to government Ministers in relation to RFAs, and fulfilling statutory requirements with respect to RFAs.

<i>Schedule:</i>	means a Schedule to this Data Agreement as amended from time to time.
<i>Singly Owned Data:</i>	means Data which is identified as being singly owned in the Schedules to the Data Agreement and includes Data where the RFA process has funded only the enhancement of, or minor additions to, Existing Data.
<i>Source Data:</i>	means Data which is not obtainable from other Data or derivable by combining other Data sets.
<i>Third Party Data:</i>	means Data owned by a third party that was used for RFA Purposes and is identified in the Schedules to the Data Agreement as Third Party Data.

## **1. Schedules**

The Parties agree that each Schedule, in respect of each item of Data listed there, includes:

- (a) the title of the Data and/or identifier for the Data;
- (b) the Owner;
- (c) the Custodian;
- (d) the Access Category; and
- (e) the Ownership Type;

## **2. Ownership Types**

### **2.1 Jointly Owned Data**

- 2.1.1 Subject to this clause 2.1 and clause 3, and where confidentiality provisions do not apply, Jointly Owned Data may be used by either Party for any purpose.
- 2.1.2 Where confidentiality obligations limit access to or use of Jointly Owned Data, Parties must comply with those confidentiality obligations. Any Data subject to confidentiality obligations must be clearly identified as Restricted in the Schedules.
- 2.1.3 Custodianship of, and access to, Jointly Owned Data shall be as described in clause 3.

### **2.2 Singly Owned Data**

- 2.2.1 The Parties agree that subject to this clause 2.2 and clause 3, Singly Owned Data identified in the Schedule can be used for RFA Purposes by either Party subject to any confidentiality or use provisions that limits its usage beyond that specifically agreed. Such Data will only be used in a manner that respects all rights of ownership, confidentiality and copyright

of the Data Owner and Licence conditions. Use of Singly Owned Data for other purposes requires the prior written permission of the Owner.

- 2.2.2 Where confidentiality obligations or limitations on use are imposed, a Party who is not the Owner may only use Singly Owned Data for purposes other than RFA Purposes under Licence
- 2.2.3 Access to Singly Owned Data by third parties will generally be through arrangement with the Data Custodian except as provided for in the Data Agreement and Schedules. Parties to this Data Agreement that are not the Owner will not provide Singly Owned Data to a third party without the prior permission of the Owner.
- 2.2.4 The Custodian of Singly Owned Data will be responsible for providing access to such Data in accordance with its Access Category identified in the Schedules to the Data Agreement and described in clause 3 of this Data Agreement.
- 2.2.5 Access arrangements imposed by an Owner shall apply to Existing Data unless otherwise agreed by the Parties.

### 2.3 Third Party Data

Third Party Data will be used in accordance with any Licence arrangements agreed with the Owner.

## **3. Access Arrangements**

- a) Subject to clause 2, all Data identified in the Schedules may be used by Parties (including the Governments' officers, employees, agents contractors, sub-contractors or consultants) for RFA Purposes consistent with the access provisions which apply to the Data's Access Category relevant to the access category as outlined below.
- b) Where confidentiality or limitations on use apply in respect of Singly Owned Data and Jointly Owned Data, such Data must only be used in accordance with the relevant Licence conditions.
- c) Access to Third Party Data will only be possible where explicitly permitted under the terms of a Licence agreement with the Owner.
- d) There are three categories that have been agreed for access to Data by Parties:
  - i) Restricted
  - ii) Licensed
  - iii) Unrestricted

### 3.1 Restricted Data

Restricted Data is Data which is considered sensitive by a Data Owner and is available to the other Party or third parties only by agreement of the

Owner on a case-by-case basis. This includes Data for which confidentiality and use provisions apply.

### **3.2 Licensed Data**

- 3.2.1 Licensed Data may be provided to third parties by means of a Licence with the relevant Data Custodian.
- 3.2.2 Licensed Data may be used by third parties as agreed on a case by case basis subject to the conditions of the Licence.

### **3.3 Unrestricted Data**

- 3.3.1 Subject to this clause 3.3.2, Unrestricted Data is available to the public without restriction in respect to the purposes for its use.
- 3.3.2 Unrestricted Data and products may be used by third parties for unrestricted use provided that the copyright interests of the Owner are protected. Any party making available Unrestricted Data must require third parties to include on any reproduction of Unrestricted Data the following statement:

Copyright © [insert name of copyright owner] [insert year of creation].

### **3.4 Data Management Arrangements**

- 3.4.1 The Parties agree to the custodianship, management, maintenance, access and use according to whether data is classified as 'Restricted', 'Licensed' or 'Unrestricted' as detailed above and in the Schedules. The classification of each Data set will be agreed on a case by case basis for all Data used for development of the RFA and as outlined in the Schedules to be added to this Data Agreement.
- 3.4.2 The Parties will agree on the Data Custodian to manage, maintain and release the Data as outlined in the Schedules to this Data Agreement. The Data Custodian will maintain a register of all Data transfers for Data classified as Restricted or Licensed that will be available to either Party.
- 3.4.3 Over time, Data may be reclassified from one access category to another, subject to the approval of the Data Owner, agreement by the Parties and the notification of the Custodian of this reclassification.

## **4. Data Archive**

- 4.1 The intention and purpose of the Data Archive is to ensure that baseline Data is available for undertaking RFA reviews.
- 4.2 Access to Archived Data shall be consistent with this Data Agreement.
- 4.3 The Parties will ensure that, subject to clause 4.5, all Singly Owned Data, Jointly Owned Data and Third Party Owned Data including Assessment



Reports, Source Data and Derived Data identified in the Schedules to the Data Agreement will be included in the Data Archive unless confidentiality provisions prevent this.

- 4.4 The Data Archive shall include copies of all Data, models and software in the Schedules, Metadata, and documentation of models or modelling tools, required for the purposes of meeting Regional Forest Agreement obligations and undertaking assessments for RFA Purposes.
- 4.5 Copies of the full Data Archive shall be held at one State location and two Commonwealth locations. Where this is prevented due to commercial, confidentiality, copyright or previous contractual arrangements that Data must nevertheless be archived by the Custodian in a manner satisfactory to both Parties. Remote archiving of Data should be avoided wherever possible.
- 4.6 The Custodian identified in the Schedules to this Data Agreement shall provide copies of the Data, Metadata and other documentation for the Data Archive by the following dates:
  - (a) Eden Region (Schedule 1) by 30 April 2000;
  - (b) Upper North East Region (Schedule 2) by 30 June 2000;
  - (c) Lower North East Region (Schedule 3) by 30 June 2000, and
  - (d) Southern Region (Schedule 4) - on a date to be agreed by the Parties on signing of the Agreement.
- 4.7 The manager of the NSW copy of the RFA Data Archive will be the Department of Urban Affairs and Planning. The managers of the Commonwealth copies of the RFA Data Archive will be Environment Australia - Department of Environment and Heritage, and Department of Agriculture, Fisheries and Forests (Bureau of Rural Sciences).
- 4.8 Maintenance of the Data Archive will be the responsibility of an appropriate nominee at each of the three Data Archive sites. All archiving of Data and other information must provide appropriate security and must ensure the continuing recoverability of Archived Data (preferably by CD ROM) and must include Metadata and/or other relevant supporting documentation to enable use of that Data and other information.
- 4.9 The Parties shall have access to all Archived Data in the Data Archive as baseline Data for RFA review purposes.
- 4.10 The Archived Data Archive must not be changed, amended or altered unless this is necessary to correct an error occurring during the archiving process, in which case all Data Archive Managers and Parties must be notified and the error must be rectified by the Custodian.

## **5. Metadata**

- 5.1 All Singly Owned Data and Jointly Owned Data identified in the Schedule shall be described by standard Metadata. Standard Metadata will be freely exchanged between Parties and third parties.
- 5.2 The Australia New Zealand Land Information Council (ANZLIC) metadata standards as supplemented for the NSW CRA/RFA process (see CRA Data Manual - *A report undertaken for the NSW CRA/RFA Steering Committee, May 1998*) will be used to describe all Source Data, Existing Data and Derived Data. Metadata for a given Data set is the responsibility of the Custodian for that Data set.
- 5.3 The ANZLIC (1996) metadata standard has been adopted as the metadata standard for the NSW CRA/RFA. (Reference: ANZLIC *Guidelines: Core Metadata Elements: Version 1 - Metadata for high level land and geographic data directories in Australia and New Zealand*. ANZLIC 1996.).
- 5.4 The Parties will ensure that the custodian for each Data set will provide the Metadata statements to the Australia Spatial Data Directory (ASDD) consistent with jurisdictional practices.

## **6. Data updates**

- 6.1 The Parties agree to provide appropriate mutual access to updated and modified Assessment Data that is not subject to confidentiality obligations and restrictions on use for the purposes of RFA review and monitoring. Any significant upgrades to, or modification of, the Assessment Data must be reported to the other Party on request.
- 6.2 If significantly upgraded versions of Jointly Owned Data are developed in the course of the normal business of either Party, they will be Singly Owned Data and provided to the other Party as required for RFA Purposes in accordance with this Data Agreement.
- 6.3 If upgraded versions are developed for RFA Purposes and the upgrade was jointly funded, the new versions of Data will be Jointly Owned Data unless otherwise agreed and will be provided to the other Party at no cost.
- 6.4 CRA Data yet to be completed and listed as 'work in progress' in the Schedules to this agreement will, on completion, be provided to the other Party consistent with the Ownership Type and Access Categories subsequently agreed between the Parties and identified in the Schedule.
- 6.5 The Parties recognise that access to New Data may be required for the purposes of RFA reviews. Immediately prior to any RFA review the Parties shall determine which New Data is appropriate for review purposes, and negotiate access to that New Data through the Custodian.
- 6.6 The Custodian of any 'work in progress' (as identified on the Schedules) shall notify both Parties upon the completion of those Data sets. Thereafter, access to

that Data shall be through the Custodian, in accordance with the appropriate sections of this Data Agreement.

**7. Participant Stakeholder Access to Assessment Data Post-RFA Signing**

On request, a copy of Licensed and Unrestricted Assessment Data, as archived, will be issued to participant stakeholders subject to the provisions of a Licence issued by the Department of Urban Affairs and Planning.

**8. Data Access by Third Parties.**

Data access by non-RFA participants will be addressed on a case-by-case basis consistent with the appropriate sections of this Data Agreement and shall be granted through the relevant Custodian.

**9. Contacts**

Correspondence concerning this Data Agreement should be marked to the attention of the GIS Manager for Regional Forest Agreements in the relevant agency as set out below.

Resources and Conservation Division  
Department of Urban Affairs and Planning  
GPO Box 3927  
Sydney NSW 2001

Department of Agriculture, Fisheries and Forestry - Bureau of Rural Sciences  
PO Box E11  
BARTON ACT 2600

Environment Australia, Department of Environment and Heritage  
GPO Box 787  
CANBERRA ACT 2610

**PRINCIPLES OF ECOLOGICALLY SUSTAINABLE FOREST  
MANAGEMENT (ESFM)**

**Principle 1: Maintain or increase the full suite of forest values for present and future generations across the NSW native forest estate**

- The principle of intergenerational equity (that in meeting the needs of the present generation, the ability of the future generations to meet their own needs is not compromised) is embodied in this principle.
- Ensure that ESFM at the regional and smaller scales is implemented by ecologically appropriate planning and operational practices, and that ESFM targets are set and indicators of performance are monitored.
- Ensure the long-term maintenance of the full range of values of the NSW existing forest estate. The intention is to maintain or increase not only the full range of values, but also the magnitude or level at which those values are maintained or increased.
- Encourage the increased production of plantation-grown timber and the social and economic benefits flowing from this increased production to supplement the wood supply from native forests.

**Aims for values include**

**A Biodiversity**

- Biological diversity of forests at the ecosystem, species and genetic levels where biological diversity includes natural patterns of ecosystems, species and gene pools in time and space.
- Address the requirements of vulnerable species, assist with the recovery of threatened species, and maintain the full range of ecological communities at viable levels.
- Protect landscape values through the careful planning of operations and the reservation of appropriate patches and corridors of vegetation.

**B The productive capacity and sustainability of forest ecosystems**

- Maintain ecological processes within forests (such as the formation of soil, energy flows and the carbon, nutrient and water cycles, fauna and flora communities and their interactions).
- Maintain or increase the ability of forest ecosystems to produce biomass whether utilised by society or as part of nutrient and energy cycles.

- Ensure the rate of removal of any forest products is consistent with ecologically sustainable levels.
- Ensure the deleterious effects of activities/disturbances which threaten forests, forest health or forest values are minimised.

#### **C Forest ecosystem health and vitality**

- Reduce or avoid threats to forest ecosystems from introduced diseases, exotic plants and animals, unnatural regimes of fire or flooding, wind shear, land clearing and urbanisation.
- Promote good environmental practice in relation to pest management.
- Ensure the deleterious effects of activities/disturbances within forests, their scale and intensity, including their cumulative effects are minimised.
- Restore and maintain the suite of attributes (ecological condition, species composition and structure of native forests) where forest health and vitality have been degraded.

#### **D Soil and water**

- Maintain the chemical and biological functions of soils by protecting soils from unnatural nutrient losses, exposure, degradation and loss.
- Maintain the physical integrity of soils by protecting soils from erosion, mass movement, instability, compaction, pulverisation and loss.
- Protect water quality (physical, chemical, biological) by measures controlling disturbance resulting from forest activities.
- Identify and maintain at appropriate levels, water yield and flow duration in catchments.

#### **E Positive contribution of forests to global geochemical cycles**

- Maintain the positive contribution of forests to the global geochemical cycle (includes climate, air and water quality and deposition).

#### **F Long-term social and economic benefits**

- Maintain and enhance, on an ecologically sustainable basis, production of wood and wood products, including value adding, investment and resource security.
- Provided it is ecologically sustainable, set, maintain or enhance the level of use of non-wood products and uses, including bee-keeping, grazing, mining, recreation and tourism, reliable water supply.

- Maintain and enhance, on an ecologically sustainable basis, the provision of employment and community needs such as economic diversification, investment skills, education, jobs stability, training and Indigenous needs.
- Encourage the establishment and use of plantation forests on existing cleared land to expand social and economic values.
- Maintain and enhance the intangible social welfare benefits which forests provide.

## **G Natural and cultural heritage values**

- Protect social, natural and cultural heritage values and sites, including aesthetic, landscape, historic, cultural, educational, scenic, spiritual and scientific values, including Indigenous values and sites.

### **Principle 2 Ensure public participation, access to information, accountability and transparency in the delivery of ESFM.**

- Ensure public participation in decision-making processes at local, regional and State and Federal levels.
- Ensure comprehensive, timely and reasonable public access to information.
- Ensure transparency, openness and accountability in decision making processes and performance.

### **Principle 3 Ensure legislation, policies, institutional framework, codes, standards and practices related to forest management require and provide incentives for ecologically sustainable management of the native forest estate.**

Establish a process for shared management and administration, recognising the customary and traditional rights of Indigenous people, and the interests of private land-holders and other stakeholders in an area's management.

### **Principle 4 Apply precautionary principles for prevention of environmental degradation**

The incorporation of the precautionary principle into decision making has been endorsed by State and Commonwealth Governments (Commonwealth of Australia 1992 p. 49, IGAE 1992) and is defined as *'where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*

- *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment; and*
- *an assessment of the risk-weighted consequences of various options.'*

**Principle 5    Apply best available knowledge and adaptive management processes**

ESFM would utilise the concept of adaptive management and continuous improvement based on best science and expert advice and targeted research on critical gaps in knowledge, monitoring or evaluation.