

State of South East NSW Native Forests



Contents

Summary of Report Findings.....	4
Introduction.....	5
Brief Historical Background	6
Definition of Ecologically Sustainable Development.....	9
Review of Regional Forest Agreement Milestones	12
<i>Paucity and Transparency</i>	14
<i>Effectiveness of the Threat Abatement Plan</i>	15
<i>Environmental Management Systems</i>	16
<i>Fire</i>	17
<i>Milestone Tally</i>	19
<i>The Results of Monitoring of Milestones and Sustainability Indicators</i>	19
Compliance to the Regulations	21
EPL Breaches from 2000 to 2006	21
<i>Compliance and Enforceability</i>	27
<i>Regulatory Response</i>	28
Ecologically Sustainable? The ESFM Myth.....	30
<i>Main Indicators for ESFM: Area available, Growing Stock, Wood Supply and Value</i>	34
<i>'Sustainable' Yield</i>	34
<i>Overcutting</i>	35
<i>Removal of Products from Forest Ecosystems</i>	37
<i>Removal of Wood Products Compared with Sustainable Volume</i>	38
<i>Allowable Volume of Logs</i>	38
<i>Consistency</i>	42
<i>In Depth Analysis of ESFM and Over-logging in the Eden Region (Ecologically She's Finished Mate)</i>	43
<i>Legislation and Agreements in Relation to Eden ESFM</i>	44
<i>Forestry and National Parks Estate Act 1998</i>	45
<i>NSW Forest Agreement for the Eden Region 1999</i>	45
<i>Regional Forest Agreement for the Eden Region 1999</i>	46
<i>Integrated Forestry Operations Approvals</i>	46
<i>ESFM plan for Eden region</i>	47
<i>Analysis of Sustainability of Eden Timber Yields</i>	47
<i>Conclusion for the Eden Region</i>	54
Conclusion for Both Regions.....	55
Biodiversity	56
IFOA and PNF Prescriptions for Species	59
Fragmentation	61

<i>Listing Forest-Dwelling Species</i>	61
<i>Status of Threatened Forest-Dwelling Species</i>	61
<i>Species Extent and Abundance</i>	61
Residue versus Habitat Protection	62
Forest Type By Area:	63
<i>Area of Forest Type by Growth Stage:</i>	63
Regeneration	64
Ecosystem Health and Vitality.....	65
Post Fire Recovery and Research	66
Soil and Water Resources	66
Socio-Economic Benefits.....	68
Jobs	69
Legislative Frameworks.....	69
Commonwealth Legislation	71
NSW State Legislation.....	72
<i>National Parks and Wildlife Act 1974 (NSW)</i>	76
<i>Threatened Species Conservation Act 1995 (NSW)</i>	76
<i>Why Legislate?</i>	77
<i>Third Party Proceedings and Remedies</i>	Error! Bookmark not defined.
This is What We Know and This is What We Don't Know We Don't Know	78
Maintaining the Forest Global Carbon Pool	80
Private Native Forestry	81
<i>Improving and Maintaining?</i>	82
Logging Endangered Ecological Communities	84
Conclusion	84
The State of the South East Forests Reports findings are:	86
Acronyms	89
Bibliography	90

STATE OF THE SOUTH EAST NATIVE FORESTS OF NSW

RECOMMENDATIONS

- **The creation of a genuine comprehensive, adequate, representative and resilient reserve system covering the Southern and Eden Regions of native forests.**
- **The creation of Indigenous Protected Areas and jointly managed National Parks.**
- **The protection of ALL extant native forest on public land, with real incentives for conservation of private native forest.**
- **Exit assistance to be provided to support the native forest/woodchipping industry to adapt to a true and real ecologically sustainable plantation based industry.**

Summary of Report Findings

On the South Coast of New South Wales thousands of hectares of native forests are being clearfelled every year. The Forestry Commission of NSW, trading as Forests NSW, descriptions for these practices vary from 'Single Tree Selection - Heavy' to 'Australian Group Selection' to 'Modified Shelter Wood', yet they all amount to clearfelling or patch clearfelling on the ground.¹ Old-growth, rainforest and mature age forests are being logged at an unsustainable rate. Eighty five percent of trees felled are turned into woodchips, either at the Eden chipmill or at the various saw mills on the South Coast and then trucked down to the chipmill.

To meet wood supply commitments, the native forest managed by Forests NSW is being cut faster than it is growing back.² Forests NSW have continuously logged over ecologically sustainable limits since the implementation of the Regional Forest Agreements. This is immoral and uneconomic. Forestry operations in areas covered by RFAs should be subject to an independent environmental assessment that is scientifically sound and rigorous. The scientific processes in the RFAs were politically compromised. Established Joint ANZECC/Ministerial Council on Forestry Fisheries & Aquaculture NFPS Implementation Subcommittee (JANIS) criteria for forest conservation were not fully applied. There are large areas of native forest that would have been reserved if the original RFA criteria for forest conservation had been fully applied.³

The current government reporting approach adopted is perverse, capricious, and lacking in material substance. If the scope or terms of reference are too narrow in a process, the process will be flawed and a successful outcome cannot be reached. This is further indication that the current RFA policy is irrational and must be subject to reform as a matter of urgency. The allegations of openness and transparency of both Forests NSW

¹ See photos on front page of this report.

² Performance Audit 'Sustaining Native Forest Operations' Auditor-General's Report, (2009); "reviews of yield estimates for the southern region, due in 2004 for Eden and 2006 for Tumut and the south coast, have not been completed".

³ Above n1.

and the native forest industry is verging on corrupt.⁴

On our analysis Forests NSW have completed 19 out of 64 milestones that were required to be completed within the first five years of enactment of the RFAs, in other words by 2005. The *Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements* alleges that:

‘If a milestone was due during the first five years, but was completed by 30 June 2008, it is discussed as completed (e.g. even if it was completed after the first review period)’.⁵

This statement is erroneous and unsatisfactory in both timeline and content.

The extent to which milestones and obligations have been met, the results of monitoring of sustainability indicators, and the performance of the RFAs is disingenuous and exceedingly below satisfactory. The performance of Forests NSW ‘implementation’ of the RFAs in meeting specific milestones has been an abject failure, consistently late, and professionally inadequate.

There is a dis-connect within the native forest timber industry in that it has exerted undue influence to ensure desirable outcomes for its profit margins and shareholders at the expense of the current and future generations of the State. This is immoral.

The National Park additions to date, and the recent NSW Riverina Red Gums decision⁶ are a progressive step, however the world-class benchmark was set by New Zealand in 2002, and Australia has been tardy and negligent in its attempts at meeting this world standard.

Current State management of the native forest estate has gone beyond its scope as the public caretaker, has broken its pact with the community, and is needing immediate reform.

There should be an immediate enactment of clause 8 of the RFAs, for which the grounds have been triggered, giving effect to ending the RFAs as the mode of native forest mis-management.

South East Forest Rescue calls for indigenous ownership of all public native forest, a complete stop on logging of endangered ecological communities, complete transfer of wood product reliance to the plantation timber industry and salvage recycled hardwood timber industry, a single authority for national native forest stewardship modelled on the New Zealand example, and an immediate nation-wide program of catchment remediation and native habitat reforestation. We assert that urgency is needed in this forest reform.

Introduction

This report is the result of monitoring and auditing of the ongoing operations of native forestry management since the *Forestry and National Park Estate Act 1998* was voted through the NSW Legislative Council by the Labor government and Coalition opposition. That evening in November 1998 marked the point where the community lost the right to affect what happened to its native forest environment.

This report has the purpose of reviewing the state of the native forests of the south east of New South Wales.

⁴ See *Watt v Forests NSW* [2007] NSWADT 197; see also *Digwood v Forests NSW* [2009] NSWADT 107.

⁵ A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Sydney, p22.

⁶ Although we note that disappointingly the newly elected Liberal National government has opened the park to firewood collection.

The performance of the RFAs are scrutinised, outcomes to date examined, and recommendations for action presented.

These conclusions are based on extensive research and on-ground examination of the implementation or non-implementation of the RFAs and Integrated Forestry Operations Approvals (IFOAs) on unprotected native forest mainly in the Southern and Eden regions, but also the whole of New South Wales, Victoria, and Tasmania since the year 2000.

This 2011 update has traversed events such as a recent NSW election and native forest moratorium issues in Tasmania that still remain to be resolved, along with new trajectories in export uses for old growth forest, for example pellets.

Brief Historical Background

*“The RFAs are widely perceived in the scientific community to have failed to deliver the intended protection for environmental, wilderness and heritage values that state and federal governments committed to when they signed the National Forest Policy in 1992”.*⁷

The Regional Forest Agreement process constituted an abandonment by the Commonwealth of its responsibilities for forests. Under section 38 of the *Environment Protection Conservation and Biodiversity Act 1999* (Cth) the Commonwealth undertook to refrain from exercising its environmental legislative powers for the duration of the Agreements (until 2023 if no extensions are granted).

RFAs were endorsed by the Commonwealth on the basis that the States had conducted a thorough environmental assessment of their forests. Reviews of the data used for the Comprehensive Regional Assessments reveals the data was either flawed, hastily cobbled together, or non-existent. Areas that fell under these RFAs were made exempt from the EPBC Act on the basis that environmental assessments had already been undertaken and that environmental considerations were contained in the RFAs.

However the RFA ‘negotiations’ were flawed. Scientists became increasingly concerned when a political decision was made to further modify the RFA measures so that scientifically-based criteria were no longer independently applied as a first step in establishing an ‘Ecological Bottom Line’. This was a crucial decision as it was very unlikely that any RFA would deliver Ecologically Sustainable Development, as the modified criteria allowed ecological values to be traded off against economic values.⁸

As an example of industry subterfuge, in Victoria members of the Victorian government bureaucracy removed crucial chapters of a state government commissioned report *Ecological Survey Report No.46 - Flora and Fauna of the Eastern and Western Tyers Forest Blocks and Adjacent South-Eastern Slopes of Baw Baw National Park, Central Gippsland, Victoria* which recommended the protection of the Baw Baw plateau and escarpments. The removal of these chapters ensured that one of the worlds most significant ecosystems remained available for clear fell logging.⁹

⁷ Bekessy S, Bonyhady T, Burgman M, Hobbs R, Kershaw P, Kirkpatrick J, Krebs C, McQuillan P, Norton T, Recher H, Rose D B, and Robin L, ‘Statement From Concerned Scientists: Statement of Support for Change on Tasmania’s forests’ (2004) Protecting Forests, Growing Jobs, Hobart, The Wilderness Society, 601.

⁸ Mackey B, ‘Regional Forest Agreements - Business as Usual in the Southern Region’ (1999) 43 *National Parks Journal* 6.

⁹ See Mount Baw Baw Report, < http://www.tcha.org.au/Baw_Baw_Report/Baw_Baw_Report.html >.

The principles of ecologically sustainable development (ESD) are now widely accepted after their introduction in 1992 through the signing of the Rio Declaration: the *Convention on Biological Diversity*.¹⁰ Commonwealth, State and Local governments became bound by the *Intergovernmental Agreement on the Environment 1992*, which contains the ratified principles.¹¹ These principles are being systematically ignored by Forests NSW.

The RFA 'negotiations' were also flawed from a conflict dispute resolution perspective. When the level of compromise is not active, if the negotiations satisfy processes not outcomes, if the relevant stakeholders have not been identified accurately, if the stakeholders do not have authorisation to speak on behalf of others or make decisions, and if the parties do not come to the table in good faith then the process is flawed.¹² This was the case with the RFA. The RFA process was a political attempt to quash conflict, and as the process progressed it became apparent that the government had not come to the table in good faith, therefore the process was doomed to fail. Environmentalists' energies were diffused through the myriad different committees and processes, plus associated travel burdens, and were often confounded by a lack of relevant data to make proper and frank assessments. This settlement process bypassed the regulatory process in which the public interest, not represented by private parties, could be aired.

Environmental issues have a strong moral dimension. Environmental destruction and pollution is immoral and unethical. Some mediation theories suggest that environmentalists should abandon their moral judgments and principles and acknowledge that the position of industrial polluters is as legitimate as their own.¹³ The assumption that business and environmental interests are fundamentally compatible is erroneous. In denying there are any serious moral issues involved in the forestry dispute, the mediation of the dispute, involving moral principles or values, promotes a moral irresponsibility.¹⁴

...as between black and white, grey may sometimes seem an acceptable compromise, but there are circumstances in which it is entitled to work hard towards keeping things black and white.¹⁵

The process was presented as negotiation, but the outcomes were finally determined and announced by the Government.

The regulation defining Regional Forest Agreements requires that the RFAs:

- (a) identifies areas in the region or regions that the parties believe are required for the purposes of a comprehensive, adequate and representative national 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 region or regions; and
- (c) is expressed to be for the purpose of providing long-term stability of forests and forest industries; and
- (d) is expressed to be a Regional Forest Agreement for the purposes of these Regulations;

Having regard to studies and projects carried out in relation to all of the following matters that are relevant to the region or regions:

- (e) environmental values, including old growth, wilderness, endangered species, national estate values and

¹⁰ The Rio Declaration, *Convention on Biological Diversity*, Rio de Janeiro, 5 June 1992, Entry into force for Australia: 29 December 1993; Australian Treaty Series 1993 No 32.

¹¹ *National Environment Protection Council (New South Wales) Act 1995* (NSW), Schedule 1.

¹² Susskind L, and Weinstein A, 'Towards a Theory of Environmental Dispute Resolution' (1980) 9 *Environmental Affairs* 311.

¹³ Amy D, 'Environmental Dispute Resolution: The Promise and the Pitfalls' in Vigg N J and Craft M E *Environmental Policy in the 1990s: Towards a New Agenda*, CQ Press, (1990).

¹⁴ Preston B, in 'Limits of Environmental Dispute Mechanisms' (1995) 13 *Australian Bar Review* p158 quoting Amy D, *The Politics of Environmental Mediation*, Columbia University Press, New York, (1980) pp163-87.

¹⁵ Preston B, above n13, quoting Fuller L L, 'Mediation- Its Forms and Functions' (1971) 305 *Southern California Law Review* at [328].

- world heritage values;
- (f) indigenous heritage values;
- (g) economic values of forested areas and forest industries;
- (h) social values (including community needs); and
- (i) principles of ecologically sustainable management.

There arises the factual question in all cases as to whether Forests NSW have complied with these requirements.

Forests NSW must exercise its powers in accord with a number of environmental, social and economic objectives.¹⁶ In doing so, it must take into account other matters including preservation and enhancement of the environment.¹⁷ Every State forest must be managed in accordance with a management plan, either individually or collectively within a forest management area.¹⁸ The plan must define the forest management strategy to be adopted and the conditions of harvesting.¹⁹ Plans are binding unless approval is sought from State Forests.²⁰ A harvesting plan must be prepared for each logging operation in accordance with the Code of Practice.²¹ The harvesting plan must be consistent with the management plan, and must specify a number of conditions aimed at environmental protection.²² Working plans for flora reserves must be prepared prior to operations.²³ Threatened Species Licences (TSLs) and Environment Pollution Licences (EPLs) must be adhered to.

The obligations which arise cannot merely be declared to have been met. The Commonwealth and the various Ministers and departments are required to meet their statutory obligations. ‘Provide’ and ‘must’ have the meaning that the regulations must be adhered to. Procedures which are required by law to be observed and are not observed render the action as unlawful. Where there are specific procedures that are required to be followed and those procedures are not followed then the legislation could be overturned.

Failure to comply with a mandatory requirement will generally result in invalidity. Failure to comply with a directory requirement, that is non-mandatory requirement could result in invalidity. There is a requirement for substantial compliance for non-mandatory requirements. In *Scurr v Brisbane City Council* (1973) 133 CLR 242, Stephen J held:

it is well established that a directory interpretation of a statutory requirement still necessitates, as a condition of validity, that there should be substantial compliance with the requirement.²⁴

An exporter will only be able to remove logs from a source in an RFA area if removal of logs is in accordance with the RFA. If the RFA and IFOAs requirements have not been met then the exemption under the *Export Control Act 1982* does not apply and the exporter must obtain a licence.

The *Regional Forest Agreement Act 2002* at clause 6 states:

- (2) An export control law does not apply to RFA wood unless it expressly refers to RFA wood. For this purpose, **export control law** means a provision of a law of the Commonwealth (other than the *Export Control Act 1982*) that prohibits or restricts exports, or has the effect of prohibiting or restricting exports.

¹⁶ *Forestry Act 1916* (NSW), ss 17(3)(a) – (d).

¹⁷ *Forestry Act 1916* (NSW), s 8A(2).

¹⁸ *Forestry Regulation 1999* (NSW), reg 5(1) and 5(2).

¹⁹ *Forestry Regulation 1999* (NSW), reg 5(6).

²⁰ *Forestry Regulation 1999* (NSW), reg 5(7).

²¹ See State Forests of New South Wales, Code of Logging Practice.

²² These are imposed by statute see *Environmental Planning and Assessment Act 1979* (NSW); *Protection of the Environment Operations Act 1997* (NSW); *National Parks and Wildlife Act 1974* (NSW).

²³ *Forestry Act 1916* (NSW), s25A(5).

²⁴ *Scurr v Brisbane City Council* (1973) 133 CLR 242, Stephen J at [255].

(4) Part 3 of the *Environment Protection and Biodiversity Conservation Act 1999* does not apply to an RFA forestry operation that is undertaken in accordance with an RFA.

The conditions which are required for RFAs have not been met. There is significant on-ground, historical and contemporaneous evidence available to demonstrate this. Therefore if the RFA and legislated requirements have not been met South East Fibre Exports cannot receive the tax and licence exemptions under the *Export Control Act* and further Forests NSW logging operations no longer receive exemption under the EPBC Act.

Finally and further in *South Australia v The Commonwealth* (1962)108 CLR 130 Dixon CJ stated:

the High Court of Australia has more than once affirmed the rights and obligations subsisting between individuals as the guide to the ascertainment of the legal rights of which the Court has cognizance. That principle includes agreement as a category of right, but it would exclude agreements of which the subject of the mutual undertakings is the exercise of political power: the agreements are not such as are capable of existing between individuals, their subject-matter is the peculiar and exclusive characteristic of governments. Even an agreement of the Crown with an individual respecting the future exercise of discretionary powers - that they will or will not be exercised in a particular way - probably cannot be a valid contract.²⁵

We are of the opinion that it is not possible for the Commonwealth to enter into agreements which bind the legislative *and* executive arms of government, which the RFAs do in NSW by way of s40 of the FNPE Act. This in effect renders the whole of the delegated legislation *ultra vires*. Therefore all native forest logging under this legislation is unlawful regardless of compliance issues.

Definition of Ecologically Sustainable Development

Before proceeding erroneous and mistaken definitions of Ecologically Sustainable Development must be clarified. The definition of ecologically sustainable development had its origins in the report of the World Commission on Environment and Development, *Our Common Future*.²⁶ Development was defined as sustainable if:

“It meets the needs of the present without compromising the ability of future generations to meet their own needs.”

In the international community the term is *sustainable development*. In Australia Bob Hawke had need to place the word *ecological* in front of the phrase as developers believed they now had carte blanche to demolish the environment.²⁷ Thus the term is now defined in Australia as development that is *ecologically* sustainable. The RFAs state that their purpose is to provide for the ecologically sustainable management and use of forested areas in the regions.²⁸

The definition currently in place is contained within the *Protection of the Environment Administration Act* at s6(2):

Ecologically sustainable development can be achieved through the implementation of the following principles and programs:

²⁵ *South Australia v The Commonwealth* (1962)108 CLR 130 Dixon CJ, citing Sir Harrison Moore, at [147].

²⁶ The World Commission on Environment and Development, ‘Our Common Future’ The Brundtland Report, (1987) p 8.

²⁷ Harris and Throsby, ‘The ESD Process: Background, Implementation and Aftermath’ (1997) a paper presented at a workshop ‘The ESD Process Evaluating a Policy Experiment’ Hamilton and Crosby [eds] Academy of Social Sciences in Australia; Hawke R J, ‘Our Country Our Future’ (1989) (Statement on the Environment by the Prime Minister of Australia), Canberra: Australian Government Publishing Service.

²⁸ *Regional Forest Agreement for Southern New South Wales between the Commonwealth of Australia and the State of New South Wales* April 2001, Recital B (b).

(a) the precautionary principle—namely, that if 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:

- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
- (ii) an assessment of the risk-weighted consequences of various options,

(b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,

(c) conservation of biological diversity and *ecological integrity*—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration.

There is much uncertainty on the effects of climate change but one of the certainties is that deforestation is one of the biggest causes.

The loss of natural forests around the world contributes more to global emissions each year than the transport sector. Curbing deforestation is a highly cost-effective way to reduce emissions; large scale international pilot programmes to explore the best ways to do this could get underway very quickly.²⁹

The Stern Review goes on to state in Annex 7f:³⁰

Deforestation is the single largest source of land-use change emissions, responsible for over 8 GtCO₂/yr in 2000. Deforestation leads to emissions through the following processes:

The carbon stored within the trees or vegetation is released into the atmosphere as carbon dioxide, either directly if vegetation is burnt (i.e. slash and burn) or more slowly as the unburned organic matter decays. Between 1850 and 1990, live vegetation is estimated to have seen a net loss of 400 GtCO₂ (almost 20% of the total stored in vegetation in 1850).³¹ Around 20% of this remains stored in forest products (for example, wood) and slash, but 80% was released into the atmosphere. The removal of vegetation and subsequent change in land-use also disturbs the soil, causing it to release its stored carbon into the atmosphere.³² Between 1850 and 1990, there was a net release of around 130 GtCO₂ from soils.

Also a definition of ‘CAR’ is in order. The original definition was:

- Comprehensiveness:** which refers to the extent to which a reserve system contains samples of the major forest ecosystem types in a region.
- Adequacy:** entails a suite of considerations that enable an evaluation of the extent to which the long term ecological viability of conservation values is ensured.
- Representativeness:** assesses the extent to which the variation and diversity within each major forest ecosystem is protected.³³

²⁹ The Stern Review on the Economics of Climate Change, < http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm>

³⁰ The Stern Review, above n29, ‘Emissions from the land-use change and forestry sector’.

³¹ Baumert, Herzog and Pershing ‘Navigating the numbers: Greenhouse gas data and international climate policy’ Washington, DC: World Resources Institute (2005); see also Houghton ‘Revised Estimates of the Annual Flux of Carbon to the Atmosphere from Changes in Land Use and Land Management 1850-2000’ (2003) 55 *Tellus B* 378.

³² Houghton J T, ‘Tropical Deforestation as a Source of Greenhouse Gas Emissions’ (2005) in *Tropical Deforestation and Climate Change*, Moutinho and Schwartzman [eds]; see also Intergovernmental Panel on Climate Change (2001): ‘Climate change 2001: the Scientific Basis, Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change’ Houghton JT, Ding Y, Griggs DJ, et al (eds), Cambridge: Cambridge University Press; also Food and Agriculture Organization of the United Nations (2005): ‘State of the World’s Forests’ Washington, DC: United Nations.

³³ Mackey B, ‘Regional Forest Agreements -Business as Usual in the Southern Region’ (1999) 43 *National Parks Journal* 6.

There is an obvious disjunction between what the native forestry industry believe is ‘best practice’ and what independent scientists, academics and eighty percent of the community believe is sustainable. Forests NSW seem to be oblivious to the word ‘ecologically’. Given what is now known on greenhouse gas emissions and forest degradation Forests NSW would have difficulty arguing that their practices are sustainable. The loss of species yet to be discovered and carbon sinks will affect future generations.



Hollow-bearing tree in Mogo State Forest felled.

Review of Regional Forest Agreement Milestones

The NSW Government's directive was that there were clear limitations on the scope and purpose of the RFA review, including that the review would not revisit previous decisions. This is in conflict with all RFAs which state:

The purpose of the five-yearly review is to provide an assessment of progress of the Agreement against the established milestones, and will include:

1. the extent to which milestones and obligations have been met, including management of the National Estate
 2. the results of monitoring of sustainability indicators, and
 3. invited public comment on the performance of the agreement.
- (NE RFA clause 40, Southern RFA and Eden RFA clauses 38)

In the light of the review being incredibly overdue, it is erroneous that a milestone can be considered completed if it was reached after the due date of the first five yearly review. When milestones that were due five years ago are either not completed, or not attempted, an indication is given of the lack of will of legislators and their agencies, both past and present, to adhere to international and domestic obligations.

The *Regional Forest Agreement for Southern 2001* clause 38 states that:

within each five year period, a review of the performance of the Agreement will be undertaken.

And:

the mechanism for the review is to be determined by both parties before the end of the five year period and the review will be completed within three months.

The annual Ecologically Sustainable Forest Management (ESFM) Implementation Reports are only publicly available for the years 1999-2009.

When undertaking forestry operations on State forests and Crown timber land in the Upper and Lower North East, Southern and Eden regions, Forests NSW and its contractors must comply with the licences and conditions in the IFOAs. Annual reports contain details of breaches and compliance with IFOAs for each region.

Annual Progress Reports

Progress Report 1999-2000 (annreport.pdf, 545KB)

Progress Report 2000-2001 (annreport0001.pdf, 2.56MB) plus appendices (reportapp0001.pdf, 173KB)

Progress Report 2001-2002 (implementationreport20012002.pdf, 2.01MB)

Progress Report 2002-2003 (implementationreport20022003.pdf, 1.06MB)

Progress Report 2003-2004 (implementationreport20032004.pdf, 1.36MB)

Progress Report 2004-2005 (implementationreport20042005.pdf, 1.07MB)

Progress Report 2005-2006 (implementationreport20052006.pdf, 1.39MB)

Progress Report 2006-2007 (implementationreport20062007.pdf, 1.94MB)

Progress Report 2007-2008 (implementationreport20072008.pdf, 3.21MB)

Progress Report 2008-2009 (implementationreport20082009.pdf, 1.53MB)

Page last updated: 27 February 2011

Tardiness of reporting is in breach of the FNPE Act. It is impossible to review the sustainability indicators without annual reports. Yet as the Office of Environment & Heritage (OEHL, formerly known as Department of Environment, Climate Change and Water DECCW) 'page last updated' information shows, the last of these reports was two years late, but available only a few weeks before the Independent Assessor gave his report to government for the current review in November 2009. The submission period to comment on the Draft Report

on Progress with Implementation of the New South Wales RFAs closed on Monday 7 September 2009. The reports from 2003 onwards were not available by the submission deadline.

On the Commonwealth Department of Agriculture, Fisheries and Forestry (DAFF) website the Southern region annual reports currently range from 1999-2006.

Eden Region

- * Regional Forest Agreement for Eden New South Wales Annual Report - 2004-2005
- * Regional Forest Agreement for Eden New South Wales Annual Report - 2003-2004
- * Regional Forest Agreement for Eden New South Wales Annual Report - 2002-2003
- * Regional Forest Agreement for Eden New South Wales Annual Report - 2001-2002
- * Regional Forest Agreement for Eden New South Wales Annual Report - 2000-2001
- * Regional Forest Agreement for Eden New South Wales Interim Annual Report - 25 August 1999-30 April 2001

Southern Region

- * Regional Forest Agreement for Southern New South Wales Annual Report - 24 April 2005-30 June 2006
- * Regional Forest Agreement for Southern New South Wales Annual Report - 24 April 2004-30 June 2005
- * Regional Forest Agreement for Southern New South Wales Annual Report - 24 April 2003-30 June 2004
- * Regional Forest Agreement for Southern New South Wales Annual Report - 24 April 2002-30 June 2003
- * Regional Forest Agreement for Southern New South Wales Annual Report - 24 April 2001-30 June 2002

DAFF Last reviewed: 8 December 2010.³⁴

The milestone of the non-compliance with legislated requirements by Forests NSW and the various legislators is a case in point. The reviews were required to be completed 'within' each five year period.³⁵

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.³⁶

The word 'will' in the Oxford Concise Dictionary is defined as:

1 (In the second and third persons, and often in the first; see 'shall') expressing the future tense in statements, commands or questions.

Section 9 of the *Interpretation Act 1987* (NSW) states:

In any Act or Instrument, the word 'shall', if used to impose a duty, indicates that the duty must be performed.³⁷

Thus Forests NSW have been operating outside the law since 2004.

Whilst some reports are available, none of them have been completed and tabled in time annually. The first reports for Eden and the Upper and Lower North East were one year overdue. The next two reports for Eden and Upper and Lower North East were three and four years overdue respectively. The last two reports for those areas were four and five years overdue respectively. Southern Region reports were similarly late. Again there is no mention of this and to call the review conclusion complete is misleading to say the least.

When RFA reports were tabled in the Senate in 2005 Senator Ridgeway stated:

Essentially what we have is four slim annual reports dated 2001 and 2002 covering New South Wales, Victoria, Western Australia and Tasmania. The considerable time lapse between the date of the reports and the tabling of the reports is of great concern, especially when this is a contentious issue and one that I believe all Australians

³⁴ See DECCW website <<http://www.environment.nsw.gov.au/forestagreements/monitoring.htm#reports>> and DAFF website <<http://www.daff.gov.au/rfa/publications/annual-reports/nsw>> last viewed on 7 November 2011.

³⁵ *Regional Forest Agreement for Southern New South Wales between the Commonwealth of Australia and the State of New South Wales April 2001*, cl 38.

³⁶ *Regional Forest Agreement for Southern* cl 41.

³⁷ See the *Interpretation Act 1987* (NSW) s9 (2).

are certainly interested in, and one that came up during the recent federal election campaign. I hope it is not indicative of the attention to detail that the government is exercising in the management of Australia's forests and forest reserves.³⁸

To state the 'report completed and tabling underway' is a misrepresentation of the facts. These reports are required by the FNPE Act and are supposed to contain crucial information required for all the reviews currently underway.

This review is still ongoing. The first NSW RFA five year reviews have been conveniently rolled into the recent though still to be finalised ten years RFA review. The 22 page document entitled "*Outcomes from the Review of the NSW Forest Agreements and the Integrated Forestry Operations Approvals: Upper North East, Lower North East, Eden and Southern Regions*"(DECCW November 2010) is the most advance output to date. The Review Outcomes report (below) summarises the key themes raised by stakeholders, identifies issues that require further consideration, and provides the outcomes from this review. The situation now is the NSW Government is now working with the Commonwealth Government on a response to the independent assessor's recommendations. The response to the independent assessor's recommendations will be made publicly available following tabling in federal parliament.

Thus termination procedures under clause 8 should be instigated forthwith. The option to extend the RFAs, given what is now known about climate change, the environment, threatened species decline and the Forests NSW performance of the agreements, is without doubt a moot option. The industry notion of 'evergreen RFAs' is abominable.

Paucity and Transparency

There is a paucity of detailed information proving that public moneys and grants have been productively used. Insufficient transparency for this milestone signifies that the process is open to corruption. There is strong evidence that logging contractors who were recipients of the program did not purchase machinery that the grants were earmarked for. Cocks Pulp received \$50,190 for Business Exit Assistance.³⁹ This company is still logging and hauling pulp to the Eden chipmill. One logging contractor purchased a truck then sold the truck within the week of purchase. Some logging contractors took redundancy/retraining packages and are now back working. State and Federal Governments have a responsibility to fully disclose where all the money went. A recent scam of this ilk was exposed in Bodalla State Forest where a Tasmanian logging company was paid \$825,000 to exit the Tasmanian native forest industry, now happily logging native forest on the flanks of a sacred mountain in south coast NSW, crying they are still owed \$160,000 for two months work before they left.

The provision of information from Forests NSW is dispositive to the ideas of transparency. For example, the RFA and FAs require Forests NSW to establish long term wood supply agreements. But when questioned, Ian Barnes, the outgoing Southern Regional Manager of Forests NSW stated 'I am not aware of a document which describes these wood supply agreements'.⁴⁰

³⁸ Commonwealth, *Parliamentary Debates*, Senate Official Hansard No 5, Monday 7 March, 2005, p71, <<http://www.aph.gov.au/hansard/senate/dailys/ds070305.pdf>>.

³⁹ New South Wales, *Parliament of New South Wales Legislative Assembly* 1997, 3rd Session of the 51st Parliament, Questions and Answers No. 12 Tuesday 11 November 1997, Table(b) p183, <[http://www.parliament.nsw.gov.au/prod/LA/LApaper.nsf/0/33A5F8339324F8E0CA256EEB002D4C74/\\$file/A513012S.pdf](http://www.parliament.nsw.gov.au/prod/LA/LApaper.nsf/0/33A5F8339324F8E0CA256EEB002D4C74/$file/A513012S.pdf)>.

⁴⁰ Barnes, 4/3/09 pers com in reply to an information request.

The notion that the CAR Reserve System is genuinely based on the principles of Comprehensiveness, Adequacy and Representativeness - is false as the declining populations of forest-dependent threatened species does not support the Government's argument. The output of the CAR was deeply biased towards industry objectives and as such is a flawed document.⁴¹

...serious flaws in the information and scientific process underpinning the RFAs undertaken to date have been identified.⁴²

Most of the assessments conducted depended largely on the then existing incomplete information, out-dated maps and not on localised, on the ground information about particular areas. In many cases the science underpinning the assessments was uncertain and based on ad hoc information.⁴³ Moreover, the assessments were not conducted based on ecological criteria but on state boundaries.⁴⁴ As a result, contiguous areas on various state borders were categorised as separate regions despite clear ecological connections.

Effectiveness of the Threat Abatement Plan

Output from the studies on the effectiveness of the Threat Abatement Plan have not been forthcoming. This plan cannot have proved effective at removing foxes due to the fact that the 1080 baiting program is continuing beyond 2010.⁴⁵ The effect on non-target native species is of concern.

Non-target animals can also be at risk if they consume poisoned animals or their carcasses.

Among native mammals, unadapted wombats, macropods, possums and some rodents can be killed by herbivore baits. Birds may also be killed by 1080 baiting. Scavenging species such as magpies and crows have been recorded as occasional casualties, together with some introduced species (sparrow, starlings, doves and pigeons). There are also reports from the early 1990s of crimson rosella (a highly sensitive species) being killed by carrot baits laid for rabbits.⁴⁶

Most rodent species that have been tested in Australia and elsewhere are highly sensitive to 1080 poison.⁴⁷

There is some concern over the effects on Tiger Quoll populations. While Kortner et al state one of the nine deaths of tiger quolls in the study could be directly attributed to 1080 poisoning, the research by Belcher suggests there is grounds for concern.⁴⁸

one population in southern NSW declined dramatically, coinciding with 1080 baiting for wild dogs.

Population declines were found to correlate with 1080 poison baiting programmes.⁴⁹

⁴¹ Compliance with the criteria meant that the protected reserves had to cover the full range of forest community types, be sizeable enough to allow for species survival and reflect the diversity of the individual communities see Hollander R, 'Changing place' Commonwealth and State Government Performance and Regional Forest Agreements' Paper presented to the Australasian Political Studies Association Conference, University of Adelaide, (2004).

⁴² See McDonald J, 'Regional Forest (Dis)agreements: The RFA Process and Sustainable Forest Management' (1999) 11 *Bar Law Review* 295; Redwood J, 'Sweet RFA' [2001] 26 *Alternative Law Journal* 255.

⁴³ Hollander R, 'Changing place? Commonwealth and State Government Performance and Regional Forest Agreements' Paper presented to the Australasian Political Studies Association Conference, University of Adelaide, (2004).

⁴⁴ Mackey B, 'Regional Forest Agreements – Business as Usual in the Southern Region?' (1999) 43 *National Parks Journal* 6 p10.

⁴⁵ See Public Notices section of 26 August 2009 edition of the Narooma News.

⁴⁶ 'The Reconsideration of Registrations of Products Containing Sodium Fluoroacetate (1080) and their Associated Labels' Preliminary Review Findings' (2005), Australian Pesticides & Veterinary Medicines Authority, Canberra, <http://www.apvma.gov.au/chemrev/downloads/1080_prelim_review_findings.pdf>

⁴⁷ McIlroy J C, 'The Sensitivity of Australian Animals to 1080 Poison IV Native and Introduced Rodents' 9 *Australian Wildlife Research* 3, 505, <<http://www.publish.csiro.au/paper/WR9820505.htm>>.

⁴⁸ Gerhard Kortner A B, and Peter Watson A, 'The Immediate Impact of 1080 Aerial Baiting to Control Wild Dogs on a Spotted-tailed Quoll Population' (2005) 32 *Wildlife Research* 8, p673.

⁴⁹ Belcher C L, 'Demographics of Tiger Quoll (*Dasyurus maculatus maculatus*) Populations in South-eastern Australia' 51 *Australian Journal of Zoology* 6, p611-<<http://www.publish.csiro.au/paper/ZO02051.htm>>; see also Belcher CL, 'The Diet of the Tiger Quoll, *Dasyurus maculatus* in south-eastern Australia' PhD Thesis, Deakin University, (2007) 55 *Australian Journal of Zoology* 2, <<http://www.publish.csiro.au/paper/ZO06102.htm>>.

Sensitivity of selected native Australian species to 1080.⁵⁰

Species	Weight kg.	Sensitivity	Baits required
Magpie	0.3	1	1.3
Wedge-tail eagle	4	1	15.2
Eastern Quoll	1	3.1	3.5

Sensitivity: the higher the number the more sensitive a species to the poison '1080'.

Baits required: the average number of baits consumed where death is likely.

The *Threatened Species Legislation Amendment Act 2004* (NSW) has enabled government departments to turn a blind eye to the full extent of the species decline throughout the state. Conversely it has enabled Forests NSW to view the IFOA licence conditions as able to be broken with impunity at a significant cumulative detriment to the forest-dependent threatened species of the state, as long as it was 'an accident', which is reportedly seventy eight percent of the time. The community was assured that:

The NSW RFAs provide for environmental protection in respect of forestry operations through management prescriptions and the CAR reserve system.⁵¹

What the community has seen is that this statement is erroneous. The environment in the areas covered under the NSW RFAs is in drastic decline as evidenced by the ever growing list of threatened species, the lack of water in all rivers where logging is occurring in their catchments and the closure of oyster farmers business due to siltation.

...it can be estimated that the annual sediment export from the catchment in an undisturbed condition would be of the order of 1,056 tonnes/year, and 2,640 tonnes/year for the existing catchment logging land use scenario.⁵²

As recently as 16 Aug 10 it was reported from the northern forests that:

...a recent NEFA audit of Girard State Forest, near Drake, found numerous breaches of 45 logging prescriptions and the destruction of a stand of high quality oldgrowth forest...

They did not even comply with standard logging prescriptions, let alone any special ones. This is a disgrace and unacceptable treatment of what was meant to be a "Special Prescription Zone" contributing towards our national reserve system.

Recent audits have exposed illegal logging of rainforest, wetlands, endangered ecological communities and now oldgrowth forest. These are what the Regional Forest Agreement was meant to protect. And this is only the tip of the iceberg.⁵³

Environmental Management Systems

Evidence collated clearly demonstrates that the Environmental Management Systems ("EMS") of Forests NSW has not improved its practices or shown responsible forest custodianship, so no wonder it seems to be

⁵⁰ Saunders G, Coman B, Kinnear J, and Braysher M, 'Managing Vertebrate Pests: Foxes' (1995) Australian Government Publishing Service, Canberra, quoted in Marshall J, 'Fox in the Hen House' The Introduction of the European Red Fox (*Vulpes Vulpes*) Into Tasmania, and The Potential Threat to the Fauna Biodiversity it Represents' <<http://www.socsci.flinders.edu.au/geog/geos/PDF%20Papers/Marshall.pdf>>.

⁵¹ A Daft Report on Progress with Implementation of the New South Wales Regional Forest Agreements, Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Sydney, (2009), p45.

⁵² McAlister T, and Richardson D, 'Wonboyn Lake and Estuary - Estuary Processes Study' (2004) <http://www.begavalley.nsw.gov.au/environment/estuaries/pdfs/Wonboyn_Processes_Study.pdf>.

⁵³ Pugh D, North East Forest Alliance media release 15 August 2010.

perpetually under review. In the Eden region it has taken almost ten years to instigate the production of a clear and concise set of identification rules for Rocky Outcrops for use and implementation in the field. The EMS Manual was not even thoroughly checked for typographical errors before public release, for example on page two the word 'environmental' is misspelt. Many documents are not available for public scrutiny and therefore any claims of accountability by Forests NSW are simply not credible. The most ironic of these examples is Example 2, page five of the EMS: the 'Communications Strategy' hotlink, is not publicly available. More examples ensue because there has been no genuine attempt by Forests NSW to perform to the expectations of their obligations. Page fourteen of the EMS describes a Forest Health Strategy assessment in preparation, these documents were needed when the EMS was released. On page eleven the EMS states that:

Monitoring of disturbance regimes is carried out through the Landscape Biodiversity Monitoring program, piloting in Western Region as of August 2008, and research.⁵⁴

The monitoring and research output should be publicly available now.

Fire

The fire management regime practised by Forests NSW is below standard. For example in 2005-06 seven percent of State forest was burned in wildfire and 38,008 hectares were burned as 'hazard reduction' for a total expenditure of over eight and a half million dollars.⁵⁵ This is a waste of taxpayers money given the concerns citizens are expressing over climate change and biodiversity impact.

An example of these 'mitigation measures' is the incident of 27 August 2009. A 'fuel management' fire that was started by Forests NSW in compartments west of Gulaga Mountain, jumped containment lines and 'got away' burning out of control up the mountain and continued burning down the eastern flank threatening the two Tilba villages.⁵⁶ Previously communities had called for no burns on the mountain and requested Forests NSW to extinguish this fire. This fire had been burning for two weeks. Forests NSW ignored community concerns and the severe drought weather conditions. Homes were threatened, sacred sites burnt, rainforest decimated and threatened species like the Long Nosed Potoroo in extreme danger if not exterminated.

The Rural Fire Service states:

In southern NSW (generally from the Illawarra south) bush fire hazard reduction burning is typically conducted in autumn. Burning in spring (after fuels have dried out sufficiently following winter rainfall) is usually avoided because there is potential for re-ignition in summer when rainfall is lowest and conditions are hot and dry. Spring burning in the south should only be carried out by, or with the assistance of, very experienced burning crews and should be avoided in years of below average rainfall.⁵⁷

The other factor on the South Coast is the high wind season which is in August through to October. They also state:

These conditions will take into account environmental factors such as:
the presence of threatened species or endangered ecological communities;
the risk of soil erosion or mass movement;
fire history and minimum fire frequency intervals for specific vegetation types;
the location of water bodies and waterside vegetation; and

⁵⁴ *Australian Forest Standard (AS 4708:2007) and EMS(ISO 14001:2004) Manual*, Forests NSW.

⁵⁵ Forests NSW Seeing Report 2005-06, p28.

⁵⁶ 13/08/2009 Eurobodalla, Mountain Rd, Bodalla State Forest CENTRAL TILBA, Forests NSW, <http://www.rfs.nsw.gov.au/dsp_more_info.cfm?CON_ID=7929&CAT_ID=689>.

⁵⁷ NSW Rural Fire Service, 'Standards for Low Intensity Bush Fire Reduction Burning' s5, <http://www.rfs.nsw.gov.au/file_system/attachments/State08/Attachment_20060131_C4C3FB83.pdf>.

the effect of smoke on the local community.

The conditions may include measures to protect biodiversity by limiting the frequency of burns, or excluding fire from specific areas.

Failure to comply with the conditions will result in fines if damage is done to the environment.⁵⁸

This is not an isolated incident. There have been numerous instances of fires ‘getting away’ from Forests NSW and burning out of control. The fines to Forests NSW for environmental damage are conversely seldom encountered.

There is a perception among forest fire management that prescribed burning is simply lighting fires to burn-off the undergrowth and that this can be carried out with only a basic understanding of fire behaviour... Indeed where burning off has been carried out this way the results have been less than favourable and has resulted in injury and death. In the eastern states prescribed burning is largely carried out using rules of thumb based on a MacArthur’s original burning guide for dry eucalypt forests produced in the 1960s. (MacArthur 1962)⁵⁹

Forests NSW administrative breaches might seem insignificant but they can result in damaging consequences. For instance Forests NSW ‘Southern Region Burning Proposals 2007’ contains Burning Plan Number 07BAN3053 (the one that ‘got away’) further stating that the areas last burn was in 1996, yet on the adjoining Burning Plan Number 07BAN3048 parts of the area are mapped as last burned in 2000, 2001 and 2005. These areas have been heavily logged which leaves incredibly high amounts of tree heads, leaves, tree butts and bark. For example post logging fuel loads are said to be fifty to one hundred and fifty tonnes per hectare of logging slash and ten to twenty tonnes per hectare in between tree heads.⁶⁰

Forests NSW states it is committed to the RFA ESFM practices and will ensure that Forests NSW will:

Minimise adverse impacts on the environment; Minimise the risk of escape causing wild fire; and Monitor the impacts on the environment.⁶¹

Forests NSW has not performed its duty to these principles.

Clearfelling and burning, which is likened by forest industries as akin to the natural disturbance of a high intensity bush fire, causes even-aged forest regrowth, and has been shown to be detrimental to those organisms that rely on successional growth.⁶² This is especially true for those organisms that rely on the retention of tree hollows.⁶³

The latest failure by Forests NSW and their fire management strategies occurred in Nullica State where the regulator caught them red-handed torching seventy hectares of Smoky Mouse habitat.

Although fire may be a natural disturbance, periodical prescribed burning can alter both long and short-term ecological processes, and irreversibly affect ecosystem diversity and productivity. In particular, prescribed burning may affect natural succession, organic production and decomposition, nutrient and water circulation,

⁵⁸ NSW Rural Fire Service above n58, Step2.

⁵⁹ Submission from CSIRO to House Select Committee on the Recent Australian Bushfires, (2003), Sub No.434 <<http://www.aph.gov.au/House/committee/bushfires/inquiry/subs/sub434.pdf>>.

⁶⁰ Wandera Cpts 584,585,586 Harvesting Plan, approved 1/5/08, p35.

⁶¹ ESFM Plan, Southern Region 2005.

⁶² Lindenmayer D B, and Franklin J F, ‘Managing Stand Structure as Part of Ecologically Sustainable Forest Management in Australian Mountain Ash Forests’ (1997) 11 *Conservation Biology* 1053; see also Lindenmayer D B, and Franklin J F, ‘Re-inventing the Discipline of Forestry - a Forest Ecology Perspective’ (1997) 60 *Australian Forestry* 53; and Lindenmayer D B, Norton T W, and Tanton M T, ‘Differences Between Wildfire and Clearfelling on the Structure of Mountain Ash Forests of Victoria and Their Implications for Fauna Dependent on Tree Hollows’ (1990) 53 *Australian Forestry* 61.

⁶³ See ‘Reserve Adequacy and the Management of Biodiversity’ Land Assessment Unit, National Parks and Wildlife Service, A Supplement to the Reserve Design Report, A Project Undertaken as Part of the NSW Comprehensive Regional Assessments, Project Number NA 43/EH, July, 1999.

and soil development.⁶⁴ Current scientific opinion is in conflict with Forests NSW fire practices.⁶⁵ Noteworthy is the Forests NSW knowledge of yesteryear, where it was recognised that an equilibrium of accumulation and decomposition of leaf litter on the forest floor occurs of around 8-14 tonnes per hectare.⁶⁶

Further, to use ‘grazing’ as a fire mitigation measure is definitely ingenious.⁶⁷ The development of cows that eat sticks and leaf litter must be a world first.

The change in species composition of ecosystems due to the preferential grazing of palatable species is only one effect from grazing. Cloven-hoofed animals have contributed to soil compaction and general degradation of ecological processes by causing the loss of leaf litter and the associated loss of soil micro-organisms and available carbon, reduced soil water infiltration rates and an increase in soil erosion.⁶⁸ These effects are particularly pronounced in temperate woodlands.⁶⁹

Milestone Tally

Completed: 12 Completed Late: 7 Not Required Yet: 3 Late: 12 Late/Not Done: 25
Therefore, in percentage totals: Late/Late/Not Done: 63%. Completed/Completed Late: 32%.

The Results of Monitoring of Milestones and Sustainability Indicators

Forests NSW, regulators and legislators have failed in the performance of meeting their legislated obligations.

Last year we noted some areas of non compliance with RFA milestones. The Commission advised that it is addressing areas of non compliance.⁷⁰

The Commonwealth’s State of the Forests Reports quality of reporting is substandard. Basic facts such as the land area of NSW changing between the 2003 and 2008 report where it shrank by 96,000 hectares.⁷¹

The long-awaited *Final Report on Progress with Implementation of NSW Regional Forest Agreements: Report of Independent Assessor* confirms observations that the Regional Forest Agreements are failing to meet their transparency and sustainability obligations.

If as stated, the NSW RFAs were to provide for the ‘conservation of areas, for Ecologically Sustainable Forest Management and twenty year certainty for native forest industries’, then the results of this report show clearly that the agreements have failed dismally on all accounts.

The report, dated November 2009, was actually due several years ago to coincide with the RFA reviews, which the report acknowledges. The report states:

However, fundamentally, the first reviews should have been completed in the 2004-2006 period, i.e. five years from their initialisation. The fact that these reviews have been delayed 3-4 years is of considerable concern,

⁶⁴ See ‘Reserve Adequacy and the Management of Biodiversity’, above n64, quoting Ovington J D, ‘Ecological Processes and National Park Management’ National Parks, Conservation and Development: ‘The Role of Protected Areas in Sustaining Society’ Proceedings of the World Congress on National Parks, Smithsonian Institution Press, Washington D C, (1984).

⁶⁵ Driscoll D, Lindenmayer D B, Bennett A, Bode M, Bradstock R, Cary G, Clarke M F, Dexter N, Fensham R, Friend G, Gill M, James S, Kay G, Keith D A, MacGregor C, Russell-Smith J, Salt D, Watson J, Williams R J, York A, ‘Fire Management for Biodiversity Conservation: Key Research Questions and our Capacity to Answer Them’ (2010) 143 *Biological Conservation* 1928.

⁶⁶ Narooma Management plan 1974 Forestry Commission of NSW.

⁶⁷ The NSW Forest Agreements Implementation Report (2001/2002) published in 2006, p63.

⁶⁸ See NSW Forest Agreements Implementation Report, above n67.

⁶⁹ See ‘Reserve Adequacy and the Management of Biodiversity’, above n64.

⁷⁰ Auditor-Generals Report, Vol 1, 2009, <http://www.audit.nsw.gov.au/publications/reports/financial/2009/vol1/pdfs/31_0173_forestry_commission_of_new_south_wales.PDF>.

⁷¹ Commonwealth State of the Forests Report, 2003 and 2008.

has reduced public confidence in the outcomes and seriously distorts the process for the future.

And:

Timeframes were included in the RFAs for a reason and the failure to deliver in any reasonable timeframe could have a major impact on both public confidence in the process and the achievement of the basic objectives of the RFAs. Even if it is accepted that, in an undertaking of this nature, some delays are inevitable, delays of three to four years and in at least one case 9 years, indicate a basic problem or problems.

The report goes on to state:

...the significant delays for the Southern and Eden regions reviews (3 years behind schedule) need to be addressed as soon as possible to minimise uncertainty and to allow an accurate picture about sustainability of current harvesting to emerge...No real reason is provided for the delays.

In reply additional information was provided to the independent assessor by Forests NSW which stated:

Monitoring designed to assess performance at a much finer scale (at an operational level) and/or to determine the causes of detected variation (via post-harvest assessment) would be prohibitively expensive and would involve unsatisfactory occupational health and safety risks.

Forests NSW seems to be arguing that entering post-logged forest to monitor their operations is prohibitively expensive and unsafe for their trained employees. If it is unsafe for Forests NSW employees to enter post-logged forest it must be equally expensive and unsafe for their employees to enter forest while logging operations are underway therefore, if it is so expensive and unsafe, Forests NSW should heed conservationists call and end native forest logging.

Compliance to the Regulations

There is now substantial evidence indicating that the Integrated Forestry Operations Approvals are inoperable, unenforceable, and is systemically non-compliant.⁷² Compliance milestones have not been taken seriously by Forests NSW. Non-compliance is situation normal. Auditing reporting on a public level might be provided in the FA and IFOA reports but because these documents are either not tabled or consistently late they are effectively not in the public domain.

The auditing mechanisms of the RFAs are not credible, lack the necessary comprehensiveness, are underfunded and understaffed, systematically abused, lack objective independence, are overly reliant of self-auditing processes, have not utilised, or been excessively weak in the enforcement of non-compliance and have not resulted in demonstrably improved practices. For example OEH condoned breaching the TSL conditions for tree retention by saying:

Forests NSW did acknowledge that whilst some of the trees marked for retention did not strictly meet the requirements of hollow-bearing, an adequate number were retained across the landscape when unmarked trees were included in the count.⁷³

Non-compliance is par for the course during forestry operations. It is obvious that warning letters are issued but the issues of non-compliance are taken no further. It is evident that the Department Of Fisheries compliance role has been relegated to rubberstamping with only one reporting anomaly non-compliance for the whole period the statistics cover, but recently the Department of Fisheries issued Forests NSW with a \$1000 fine. Forests NSW has seriously dropped the ball on operating within its legal framework. To deem this milestone completed at page sixty seven is a blatant untruth. There have been no prosecutions of breaches in the Southern and Eden regions since the RFAs were implemented. The ‘accounting report for breaches and audit results’ in the Draft Report is erroneous. Table 4.2 Audit results in the lower North East Region 2002/03 notes there were no complaints for breaches of the EPL and no Clean-up notices issued. SEFR has documents and correspondence between the Black Bulga Range Action Group and the EPA during that year regarding several complaints of non-compliance issues which resulted in the issuing of a Clean-up notice.⁷⁴

EPL Breaches from 2000 to 2006 ⁷⁵

During 1999–2000, State Forests identified 2,039 (875) breaches of EPL conditions for the whole estate. Breaches included incorrect felling of trees into filter strips, machine encroachment in filter strips, excessive rutting and inadequate slashing of extraction tracks.⁷⁶

⁷² All correspondence between SEFR and DECCW from 2001.

⁷³ DECC ref.FIL06/1449 Ian Cranwell 16/2/09.

⁷⁴ See <<http://www.environment.nsw.gov.au/prpoeo/Notices/N1024598.pdf>>.

⁷⁵ Annual Report to the EPA for the Environment Protection License No: 0004022 (2000, 2002, 2003, 2004, 2005, 2006) Appendix 1.

⁷⁶ Auditor-General’s Report to Parliament, Vol 1 2001. <<http://www.audit.nsw.gov.au/publications/reports/financial/2001/vol1/173Forestry.PDF>>.

2000

EPL Condition No	Brief description of Condition	No. of Times Breached
Sch 4, Con 18	Tree felled into filter strip	353
Sch 4, Con 41	Snig track exceeded 25 degree in land classified as IHL 2 or 3	2
Sch 4, Con 22	Machine operator not complying with operating condition for buffers	3
Sch 4, Con 20	Machine entered filter strip	5
Total		363

In 2000-01 the number of checks were 3,424 and Forests NSW identified 1,538 breaches. There were five fines issued by the Environment Protection Authority (“EPA”) for breaches of water regulation.⁷⁷

2002

EPL.	Brief description of Condition	No. of Times Breached
Sch. 4, Con 17	Tree felled from within filter strip	1
Sch. 4, Con 18	Tree/Part of tree into filter strip	463
Sch. 4, Con 19	Tree/Part of tree removed from filter strip	1
Sch. 4, Con 20	Machinery entered filter strip	4
Sch. 4, Con 41	Grade of snig track exceeded 25 degrees	1
Sch. 4, Con 70/1/2	Inadequate snig track drainage	1
Sch. 5, Con 9	Inadequate road drainage spacing	1
Total		472

The number of checks conducted was 3,431. Forests NSW identified 1,242 breaches made by internal and external contractors. Sixty-six per cent of these breaches related to accidental felling of trees into filter strips or other exclusions relating to drainage features. Other breaches include damage to habitat or trees to be retained for future habitat. The EPA issued four fines for breaches of water regulation.⁷⁸

2003

EPL	Brief description	Full description of Breach	No.
Sch. 4, Con 18	Trees must not be felled into filter strips	Trees felled into filterstrips and determined by State Forests to be negligent or poorly judged	65
Sch. 4, Cond. 19	Trees/Parts of trees felled into filterstrips must not be removed	Instances where trees or parts thereof that were felled into filterstrips were removed	4
Sch. 4, Cond. 20	Machinery must not enter filterstrips	Machinery entered filter strip	3
Sch 4, Cond. 18	Trees must not be felled into filter strips	Trees felled into filterstrips and determined by State Forests to be negligent or poorly judged	8

⁷⁷ Auditor-General’s Report to Parliament, Vol 5, 2002,

<http://www.audit.nsw.gov.au/publications/reports/financial/2002/vol5/173_ForestryCommission.pdf>

⁷⁸ Auditor-General’s Report to Parliament, above n77.

2004

EPL	Brief description	Full description of Breach	No.
Sch. 4, Cond. 18	Trees must not be felled into filter strips	Trees felled into filterstrips and determined by State Forests to be negligent or poorly judged	96
Sch. 4, Cond. 19	Trees/Parts of trees felled into filterstrips must not be removed	Instances where trees or parts thereof that were felled into filterstrips were removed	2
Sch. 4, Cond. 20	Machinery must not enter filterstrips	Machinery entered filter strip	1
Sch. 4, Cond. 70	Requirement to construct snig track drainage	Failure to construct snig track drainage structures or retain groundcover where required to do so	1
Sch. 5, Cond. 22	Wet weather restriction	Haulage on natural surface roads must cease when there is runoff from the road surface	1
Sch. 4, Cond. 20	Machinery must not enter filter strips	Falling machine was backed into filter strip to allow positioning to fall adjacent tree.	1
Sch. 4, Cond. 18	Trees must not be felled into filter strips	Trees felled into filterstrips and determined by State Forests to be negligent or poorly judged	6
Total			108

Forests NSW completed 3,558 reviews (3,701 in 2004-05), covering items of compliance and identified 565 breaches (1,615) for the whole estate.⁷⁹

2005

EPL	Brief Description of Condition	Full Description of Breach	No.
Sch. 4, Cond. 6	Filter strips must be retained along all drainage lines	Section of 1 st order stream boundary left unmarked	1
Sch. 4, Cond. 18	Trees must not be felled into filter strips	Trees felled into filter strips and determined by Forests NSW to be negligent or poorly judged	15
Sch. 4, Cond. 20	Machinery must not enter filter strips	Harvester and dozer entered unmapped drainage line	2
Sch. 4, Cond. 20C	Trees within protection zones must not be felled	Tree felled 8m from 1 st order drainage line	1

2006

EPL	Brief Description	Full Description of Breach	No.
Sch. 4, Cond. 18	Trees must not be felled into filter strips	Trees felled into filter strips and determined by Forests NSW to be negligent or poorly judged	12
Sch. 4, Cond. 20	Machinery must not enter filter strips	Harvester and dozer entered unmapped drainage line	1
Sch. 5, Cond. 37	Roads must be drained between 5m & 30m of drainage feature crossings	Rubber flap and mitre drain at drainage feature crossing ineffective.	1
Sch. 5, Cond. 52	Soil stabilisation must be undertaken to all disturbed areas within 20m of crossings	Fill batter of crossing unstable and depositing some sediment into filter strip	1
Sch. 4, Cond. 70	Drainage of snig tracks	Snig track drainage doesn't meet EPL conditions	4

⁷⁹ Auditor-General's Report to Parliament 2007 Volume one.

Thus there have been 701 breaches of the EPL in this period in the Southern region. These figures are provided by Forests NSW and as such can be viewed in light of the history of Forests NSW provision of data.

Conversely Forests NSW states there were 322 breaches for these periods. There is a dramatic difference. The RFA Progress Report 2003-04 states 44 EPL/TSL breaches and 592 Forests NSW breaches. The EPL Annual Reports for that year state 108 breaches, the Non-compliance register states 212 breaches.

Summary of South Coast Non-compliance register for 2002-2007

Registered Incidents					Disciplinary Action Taken			
Breach	Licence Condition	No. of Breaches	Accident	Error	Verbal	Written	Other	None
Tree/Part of tree over filter/stream exclusion zone	5.7g 5.7a11	874 115	703 81	171 34	9 5	9 9	16 5	840 96
Tree/part of tree over exclusion zone - rare forest ecosystem	5.5a	1		1				1
Tree/part of tree over exclusion zone - Rocky Outcrops	5.11a	2	2					2
Tree/part of tree over exclusion zone - Ridge/Headwater Habitat	5.8f	11	7	4				11
Tree/part of tree over exclusion zone - Rainforest	5.4f	21	14	7	1			20
Tree/part of tree over exclusion zone - Subterranean Roost	5.14.2	1		1				1
Tree felled into stream exclusion zone	5.7.1A 11	2	2					2
Removal of Tree/Part of tree from filter/stream exclusion zone	5.7.14J	1		1	1			
Excessive logging debris against retained tree	5.6.g11	27	20	7	7			20
Damage to retained tree	5.6g	63	56	7	1		1	61
Damage to and debris under retained tree	5.6.A.G(1+11)	2	2					2
Machine entry into filter strip/stream exclusion zone	5.7h 5.7.1a111	9	1	8	2	1	1	5
Machine entry into exclusion zone - Owl Habitat	6.4.2	1		1		1		
Machine entry into exclusion zone - Yellow Belly Glider Den Site	6.13	1		1		1		
Machine entry into exclusion zone - Flying Fox exclusion	5.14.4 5.14.5	1 1	1 1					1 1
Filter strips and protection zones not correctly or completely marked for 1 st order stream	5.7a	1		1	1			
Total		1,134	890	244	27	21	23	1,063

Non-Compliance statistics by year

Year	No. of Breaches	Percentage	Year	No	Percentage
2002	485	43%	2005	57	5%
2003	369	33%	2006	11	<1%
2004	212	19%			

The telling feature of these statistics is that ninety three percent of the time no action is taken against the non-compliance breach and any action taken is administrative. The general decline in statistical information on the occurrence of breaches is either due to vastly improved performance in the field, or a decrease in collection and auditing. The evidence in recently logged compartments suggests the latter.

Some examples given for non-compliance from the Register are:

Two trees pushed into Rocky Outcrop/Tiger Quoll buffer prior to tree marking in the field.

Operator was parking machine (977 Track Loader) out of sight for weekend in filter strip.

Push out dead stag for safety reasons. Stag broke up falling across line 20m F.S.

Enter a stream exclusion zone with dozer whilst pushing a tree off the 1st order stream boundary.

Contractor has attempted to remove debris from 1 tree but placed another 2 more trees with debris around base near filter unable to remove without putting machine over buffer.

Tractor driver pulled two heads out of 15m filter.

Skidder was stuck facing downhill. Winch rope was too short to reach anything. Owing to safety risk of skidder rolling over it could not be turned before the line. Driver was left with no option but to drive over line to turn with safety.

These excuses are not only grossly inadequate they highlight the lack of care by the logging contractors and, in accepting these excuses, the lack of genuine will on the part of the State Forest Officers (SFOs) to regulate. This has a compounding effect in that OEH cannot do any enforcement of worth on SFOs or Regional Managers.

When threatened species and their habitats are in danger through industrial logging practices and being negligently managed by belligerent bureaucracies there currently is no protection for them. The only protection and conservation is for Nippon Paper Group, trading in Australia as South East Fibre Exports, the sawmill owners Boral, Blue Ridge Timbers and through the filter on effect, a handful of logging magnates.⁸⁰ These businesses have been guaranteed product for twenty years and guaranteed exemption from legislation and regulation. Erroneously Forests NSW states for the period 2000 to 2006:

No significant non-compliances of the TSL were found.⁸¹

The ESFM plans for lands under the *Forestry Act 1916* (NSW) were not completed and published by December 2001.⁸² Eden, Upper and Lower North East,⁸³ Southern⁸⁴ and Tumut became available to the public in 2005,⁸⁵

⁸⁰ Cocks, Heffernans, Mathie & Sons.

⁸¹ A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements, (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Sydney, p172.

⁸² Southern Regional Forest Agreement cl47 (d).

⁸³ See <http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0006/266190/esfm-northeast-lower.pdf>.

⁸⁴ See <http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/266195/esfm-southcoast-southern.pdf>.

⁸⁵ See <http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0004/266188/esfm-eden.pdf>.

Hume, Riverina, Monaro, Macquarie, Western, Upper and Lower North East in 2008.⁸⁶ Their review is now overdue.

There is no evidence to suggest that maps have been kept up-to-date and publicly available. The definition of 'Land for Further Assessment' is opaque. The lack of information suggests a type of numbers laundering due to the varying figures for hectares in every Forests NSW annual report.⁸⁷

In the Tumut sub-region very little compliance monitoring is evident. OEH has not undertaken a field audit in the years 2007-09. Annual Implementation Reports (2006-07) no audits, no mention at all in 2005-06, 2004-05, 2003-04. During 2002/2003 two proactive audits were undertaken for the TSL for the Tumut sub-region. Six TSL conditions were investigated in each audit. Clearly the Tumut sub-region has been allowed to run feral with many systemic breaches and non-reporting.

Recent evidence from South Brooman State Forest Compartment 62 plainly shows that the Rainforest Identification protocols are in no way being adhered to. Documented evidence suggests rainforest breaches are systemic in daily logging practices.

The TSL non-compliance register held at the Regional Office has never been completely up-to-date for public inspection, with only up to year 2009 sighted. Registered are thirteen instances of non-compliance in the Eden and Southern regions between 24/309 and 1/12/09. Condition 5.8(f) heads the list of breaches, where a harvesting machine entered ridge & headwater habitat, because the unnamed operator was working in steep terrain and as a result his machine slipped on loose rock. There were also three breaches of condition 5.7(h) where the machine entered the filter strip either due to lack of care by the operator, or the operator did not see the marking tape, or even due to the operator having to perform an emergency repair to a second machine...which was where? The classic breach of 2009 was recorded in Yambulla 557, where harvesting of Mapped Old Growth in contravention of condition 5.3(c) eventuated, due to the GPS batteries going flat.



Milton Ulladulla Rainforest EEC South Brooman Cpt 62

⁸⁶ See <http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0005/266189/esfm-hume.pdf>.

⁸⁷ See Forests NSW Annual Report 2007, 2008, 2009, 2010.

Compliance and Enforceability

Illegal forestry practice has been defined as:

- logging species protected by national law
- logging outside concession boundaries
- logging in protected areas
- logging in prohibited areas such as steep slopes, river banks and catchment areas
- removing under/over-sized trees
- extracting more timber than authorised
- logging when in breach of contractual obligations
- restricting information about procurement contracts
- tailoring contract specifications to fit a specific supplier
- failing to meet licence provisions including pollution control standards

Currently in NSW all of the above is occurring.⁸⁸ Illegal forest activities have far-reaching economic, social and environmental impacts including ecological degradation and exacerbation of climate change. On the South Coast there are varying forms of State-sanctioned land clearing. From farmers wanting to obtain more land for their commercial purposes, as they, or past owners have degraded their land to such an extent that they cannot grow crops on it (climate change being a mitigating factor), to Forests NSW desperately trying to sustain twenty year wood supply agreements with the chipmill and Boral.⁸⁹ Logging is undertaken by Forests NSW or their contractors, whether on private or public land.

Although codes of practice are generally ‘aspirational’ they may be recognised as legal instruments and accorded formal stature as legislative instruments. Where they set out standards for compliance then they create enforceable obligations. We would suggest the IFOAs are such instruments.

Forests NSW, or any other person is subject to the conditions of the IFOAs including the terms of the relevant licences.⁹⁰ Under the Private Native Forestry Code (PNF Code) forestry operations under an approved Property Vegetation Plan (PVP) must be conducted in accordance with all provisions of the Code.⁹¹ Both the IFOA and the PNF Code contain the precautionary principle and principle of inter-generational equity.

In *Environment East Gippsland Inc v VicForests* [2009] VSC 386 Mr Justice Forrest held at 80:

I am not persuaded that the reference to the precautionary principle is, at least on the analysis required for this application, simply a statement of objective or lofty principle... It is the terms of the Code and the emphasis on the mandatory nature of the obligation on VicForests both before and during operations that satisfies me that there is a prima facie case that it was obliged to comply with the Code in relation to both the application of the precautionary principle and the consideration of expert evidence relevant to the area the subject of logging.

⁸⁸ See all correspondence SEFR to DECCW 2001-2010.

⁸⁹ On the south coast logs from private native forestry make up 10% of the total volume that goes to the Eden chipmill, URS Environmental Assessment Eden Biomass Power Station; on the north coast the estimated annual volume of private native forest timber harvested is 270,000 m3.

⁹⁰ *Forestry and National Park Estate Act 1998 Integrated Forestry Operations Approval for the Eden Region 1999*; the new unreviewed amended IFOAs make no mention of this clause.

⁹¹ *Private Native Forestry Code of Practice for Southern NSW 2008* cl 1(2).

The case as it stands is that in practice either the logging contractors are not reading the legislation or the drive for financial gain outweighs the need to comply with regulations.⁹² This combined with the threat of enforcement and monetary loss being minimal could be a compelling factor for non-compliance. As Forests NSW and contractors are currently out of control when it comes to regulation and compliance there is therefore little hope that the legislation will have the desired affect regardless of adequacy.⁹³

Regulatory Response

Non-compliance relies on lack or inadequacy of regulatory response. The current 'whole of government' approach has resulted in the original regulator being subsumed, the establishment of a 'forestry unit' within a government department which regulate another government department, who both seem to have the same goal.⁹⁴

In deciding whether or not to prosecute the most important step is the decision. In the interests of the environment, the offender and the community at large care must be taken to ensure that the right decision is made. The wrong decision will undermine the confidence of the community in the criminal justice system.⁹⁵

Justice Lloyd stated in *Director-General of the Department of Land and Water Conservation v Greentree & Anor* [2002] NSWLEC 102 that:

In my opinion the balancing of the legitimate public interest in the conviction of a crime and punishment of those who may be guilty against ensuring that the defendants are able to meet the case sought to be made against them, requires that greater weight should be given to the former.⁹⁶

If the offender has made deliberate attempts to conceal their offences, previous administrative responses to contraventions have not resulted in compliance, the offender shows no contrition and the community of the area, and indeed Australia as a whole, expect that the offences will be dealt with by prosecution, conducted in public before a court, then there are good grounds for prosecution.⁹⁷

The two strongest forces ensuring environmental compliance are criminal prosecutions and potential clean-up liability.⁹⁸ Regulators in Australia have been accused of not utilising the full scope of the penalty provisions and focusing on the 'less robust options'.⁹⁹ This is evidenced by the current regulatory response practice of relying on voluntary agreement. If regulators continue to implement the softer penalty provisions the deterrence objects

⁹² See *Minister for the Environment & Heritage v Greentree (No 2)* [2004] FCA 741; for the classic "I thought I didn't need approval", and "the clearing was routine agricultural management activities"; and Appellants 'outline of argument' at <<http://www.envlaw.com.au/greentree13.pdf>>; and see also *Director-General, Department of Environment and Climate Change v Walker Corporation Pty Limited (No 2)* [2010] NSWLEC 73; Shoalhaven Council are seemingly at the forefront of action compared to Bega and Eurobodalla Councils, see <<http://www.shoalhaven.nsw.gov.au/council/pubdocs/soe/region/indicator%20results%2005/Vegetationclearing%2005.htm>>.

⁹³ See Smith J, 'Making Law Work: Compliance and Enforcement of Native Vegetation Laws in NSW' (2009) 88 *Impact* 3; for an insightful history of the 'Redgums decision' see Flint C, 'River Red Gum: Barking Owls and Broken Laws on the Murray River' (2009) 88 *Impact* 6.

⁹⁴ 'DECCW will continue to work with Forests NSW. The State forests of the Eden Forestry Region...were set aside by the Eden RFA 1999 to provide a guaranteed timber supply to industry. Please be assured that the NSW Government and DECCW are working to protect the koala population and at the same time promoting regional economic development and employment' Letter to L Bower from M Saxon, Acting Director South, DECCW Environment Protection and Regulation, May 7, 2010.

⁹⁵ *Prosecution Policy of the Commonwealth*, DPP Prosecution Guidelines, 2009.

⁹⁶ See *Director-General of the Department of Land and Water Conservation v Greentree & Anor* [2002] NSWLEC 102, Lloyd J at [126] quoting Mason CJ, Deane and Dawson JJ in *Ridgeway v The Queen* [1994] HCA 33 at [38]; see also Australian Government Department of the Environment, Water, Heritage and the Arts, *Compliance and Enforcement Policy*.

⁹⁷ DEWHA *Compliance and Enforcement Policy*, Australian Government, 2009, <<http://www.environment.gov.au/about/publications/pubs/compliance-enforcement-policy.PDF>> viewed 16 June 2010.

⁹⁸ Smith S L, 'Doing Time for Environmental Crimes: The United States Approach to Criminal Enforcement of Environmental Laws' (1995)12(3) *Environment and Planning Law Journal* 168; see *Chief Executive Officer Department of Environment and Conservation v Szulc* [2010] WASC 195, a three month jail sentence for Munglinup farmer Maxwell Szulc, 27 July 2010 <<http://au.news.yahoo.com/thewest/a/-/breaking/7659368/wa-farmer-jailed-for-contempt/>>.

⁹⁹ The Australian Network of Environmental Defender's Offices, *Independent Review of the Environment Protection and Biodiversity Conservation Act 1999*, Submission 189, p15, <<http://www.environment.gov.au/epbc/review/submissions/pubs/189-australian-network-of-environmental-defenders.pdf>> viewed 16 June 2010.

of the legislation will be, and have been, greatly undermined.

A successful strategic approach to better law compliance in the forest sector is needed by increasing clarity, transparency and consistency of forest and forest-related legislation. This could be achieved by encouraging consistency of the regulatory framework to ensure that laws do not contradict others within the forest legal framework or other sectors, ensuring accountability and control of forestry operations at the local level, ensuring that in-country industrial capacity does not exceed sustainable supplies, for instance, by conducting feasibility studies and/or closing down mills.

It could also be achieved by promoting the independence of the regulator, giving the regulator and authorised officers stronger enforcement powers and creating transparency of the regulatory processes.

As none of the above suggestions will be implemented and as the current criminal behaviour is so entrenched we have little faith that any code or legislative instrument will be adhered to and less faith that the regulator will enforce compliance.

According to the Minister for Climate Change and the Environment in answer to questions in NSW Parliament the OEH employs three full time operational staff to audit Forests NSW forestry operations. These staff work closely with 14 other threatened species officers, forest policy staff and specialist investigators to deliver a robust and credible Crown forestry regulatory framework. OEH considers all potential breaches of Forests NSW licenses on their merit, including potential breaches of habitat and recruitment tree retention conditions. Before deciding on any course of enforcement action, OEH conducts an independent and comprehensive investigation to determine the facts. Following investigation, OEH considers the scale and magnitude of any environmental impacts identified, as well as the past performance of Forests NSW in relation to similar issues. These matters are then considered against OEH's publicly available prosecution guidelines. OEH only issues penalty notices or pursues prosecution action after following this process, to ensure that any action is fair and transparent. However there has not been any prosecutions or penalty notices issued for any under-retention of habitat or recruitment tree breaches. This is said to be due to complexities when establishing "beyond reasonable doubt" whether a licence breach has occurred. OEH's ability to establish whether Forests NSW has retained the correct number of trees depends on the nature of the potential breach and the quality of evidence available. The ability to enforce conditions, irrespective of the regulated environment, relies on the quality of the evidence and the clarity of the breach. Given the intricacies associated with investigating threatened species related matters, some licence conditions can be more complex to enforce. In reality, each circumstance is different and OEH ensures that all regulatory responses are appropriate, given the facts, and are fair and transparent.

This information from the Minister was previous to the 2011 election, how the OEH is resourced now that it is subsumed into Department of Premier & Cabinet is unknown. However a recent indication may be promising, after the high of the Smoky Mouse prosecution, it could be that OEH is taking a stronger stance. This recent update from our northern colleagues informs that:

For Doubleduke Forests NSW are still in court over logging 120 trees in 7.5 ha of the Subtropical Coastal Floodplain Forest EEC. OEH also issued a caution for failing to adequately mark up an area prior to logging, and two Penalty Infringement Notices for \$1,500 each (under EPL) for water pollution.

For Grange OEH issued Forests NSW two PINs with fines of \$300 for logging 8 trees in the protection zone of a fourth order stream and \$3,000 for logging

0.5 ha of the Lowland Rainforest EEC. We are yet to find out what action Fisheries took for the breaches they identified.

For Girard Fisheries issued a PIN for works in an unmapped watercourse and two cautions for works within the buffer zones of mapped streams. OEH issued Forests NSW with a formal Warning Letter in relation to the selection and marking of marked hollow-bearing and recruitment trees, snig track construction and rehabilitation, and protection of exclusion zone boundaries. By the time the agencies investigated Forests NSW had already undertaken a large number of rehabilitation works around streams since we had identified them to FNSW. OEH forgave Forests NSW's failure to mark up prior to logging due to the "thick impenetrable understorey".

All of us who have trudged through the forests witnessing and recording the devastation know that these are pathetic responses to the systematic and widespread breaches we are reporting. But it is at least having some effect.¹⁰⁰

A recent SEFR breach report on logging without having done the required koala surveys in Cathcart State Forests has resulted in a \$300 PIN being issued to Forests NSW.

Ecologically Sustainable? The ESFM Myth

There is no genuine attempt to implement and enforce the ESFM principles in any diligent manner. The five principles of Ecologically Sustainable Forestry Management are:

1. Maintain or increase the full suite of forest values for present and future generations across the NSW native forest estate;

Clear felling, under whatever guise put forward by Forests NSW spin doctors, the demise of species and the water shortages are all a breach of the principles of inter-generational equity. Australia has an obligation under international law to ensure that human rights are protected.¹⁰¹ These obligations arise through Australia's ratification of various international human rights instruments like the *International Covenant on Civil and Political Rights* and the *International Covenant on Economic, Social and Cultural Rights*. Australia has agreed to 'respect, protect and fulfil' these rights.¹⁰² Principle human rights which are subject to degradation as a result of climate change are the right to life,¹⁰³ the highest standard of physical and mental health,¹⁰⁴ and the right to water.¹⁰⁵

The Australian Human Rights commission in its submission to the *Environment Protection and Biodiversity*

¹⁰⁰ NEFA news post 7/11/11.

¹⁰¹ UN Office of the High Commissioner for Human Rights, "What are Human Rights?" (2008).

¹⁰² UN Committee on Economic, Social and Cultural Rights, *General Comment No 9 – the Domestic Application of the Covenant* (1998) UN Doc E/C.12/1998/24, UN Human Rights Committee, *General Comment No 31 – Nature of the General Legal Obligation imposed on State Parties to the Covenant* (2004) UN Doc CCPR/C/21/Rev.1/Add.13, UN Committee on Economic, Social and Cultural Rights, *General Comment No. 3 - On the Nature of State Parties' Obligations* (1990) UN Doc, E/1991/23, annex III.

¹⁰³ The right to life is contained in Article 6 *International Covenant on Civil and Political Rights*, opened for signature 16 December 1966, 999 UNTS 171 (entered into force 23 March 1976); Australia ratified the ICCPR on 13 August 1980 and the CRC on 17 December 1990.

¹⁰⁴ Article 3 of the *Universal Declaration of Human Rights*, GA Resolution 217A(III), UN Doc A/810 at 71 (1948).

¹⁰⁵ See Articles 11 and 12 ICESCR, Article 14, paragraph 2(h) CEDAW, Article 28, paragraph 2(a) CRPD and Article 24, paragraph 2(c) CRC.

Conservation Act 1999 (Cth) review stated that the Act:
requires formal and direct linkages to the *Water Act 2007* as a matter of urgency.¹⁰⁶

Deforestation and degradation is one of the biggest causes of climate change.¹⁰⁷ Water quality and availability has been dramatically reduced by logging of most catchment areas.¹⁰⁸

Article 2 of the *International Covenant on Civil and Political Rights* (1976) states at (3):
Each State Party to the present Covenant undertakes:

1. To ensure that any person whose rights or freedoms as herein recognized are violated shall have an effective remedy, notwithstanding that the violation has been committed by persons acting in an official capacity; to ensure that any person claiming such a remedy shall have his rights thereto determined by competent judicial, administrative or legislative authorities, or by any other competent authority provided for by the legal system of the State, and to develop the possibilities of judicial remedy;
2. To ensure that the competent authorities shall enforce such remedies when granted.

And at (5):

1. Nothing in the present Covenant may be interpreted as implying for any State, group or person any right to engage in any activity or perform any act aimed at the destruction of any of the rights and freedoms recognized herein or at their limitation to a greater extent than is provided for in the present Covenant.

Forests NSW are breaching these treaties by fact of section 40 of the FNPE Act and by industrial logging practices which are having adverse impacts on the environment.

Australia has obligations for forestry operations under international environment law. Section 1.4 (c) of the *Southern Region Forest Agreement 2002* states:

Note the obligations on the Commonwealth of Australia arising from the *Intergovernmental Working Group in Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests (Montreal Process)*, the *Convention on Biological Diversity*, *Agenda 21* and the *Kyoto Protocol on Climate Change*.

Conversely *Agenda 21* states:

11.1. There are major weaknesses in the policies, methods and mechanisms adopted to support and develop the multiple ecological, economic, social and cultural roles of trees, forests and forest lands...More effective measures and approaches are often required at the national level to improve and harmonize ..legislative measures and instruments...participation of the general public, especially women and indigenous people.

There is no participation of the public in any decision making processes.

In the *Vienna Convention on the Law of Treaties 1969* Article 18 states:

A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when:

- (a) it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty.

A material breach of a treaty is:

- (a) a repudiation of the treaty not sanctioned by the present Convention; or
- (b) the violation of a provision essential to the accomplishment of the object or purpose of the treaty.

¹⁰⁶ See the Australian Human Rights Commission "Independent Review of the EPBC Act," 30 January 2009.

¹⁰⁷ Garnaut R, *Garnaut Climate Change Review*, 2008.

¹⁰⁸ Mackey B, Keith H, Lindenmayer D, and Berry S, 'Green Carbon: The Role of Natural Forests in Carbon Storage, Part 1, A Green Carbon Account of Australia's South-Eastern Eucalypt Forest, and Policy Implications' ANU E Press, (2008) available at<
http://epress.anu.edu.au/green_carbon_citation.html>.

Therefore by exempting civil litigation from preventing the destruction of NSW state forests, for not enforcing the legislative requirements for compliance, for wilfully contributing to climate change and for the destruction of forests Australia is not only in breach of its domestic obligations, its in breach of international obligations.

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

For Forests NSW record of adhering to this principle see *Watt v Forestry Commission* and *Digwood v Forestry Commission*. There have been numerous breaches of provision of publically available documents.

There is no environmental democracy and no consultation in areas covered by the RFAs. Individuals or communities call a meeting, the community objects, Forests NSW log regardless. The rights of public participation is limited to making submissions to the state and federal governments if the various pieces of legislation come up for review.

Agenda 21 states:

23.2. One of the fundamental prerequisites for the achievement of sustainable development is broad public participation in decision-making...This includes the need of individuals, groups and organizations to participate in environmental impact assessment procedures and to know about and participate in decisions, particularly those which potentially affect the communities in which they live and work.¹⁰⁹

Forests NSW are exempt from preparing EIS in RFA areas and there is no assessment of the impacts of logging on native forest ecosystems.

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;

In contrast the FNPE Act and subordinate legislation provide incentives for unlawfulness without fear of capture. When penalties are low, and the possibilities of being found out are light, people take risks.¹¹⁰ Regulatory systems rely upon the enforcement of statutory requirements.

When there is no enforcement contraventions go unpunished and the incentive for compliance is nil.¹¹¹

‘Sustainable use’ means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.¹¹² Despite the rhetoric on ‘sustainable forestry’ the RFAs have not been effective in protecting forest species and habitats and they do not comply with the principles of ecologically sustainable development and the conservation of biodiversity.¹¹³

¹⁰⁹ Agenda 21 also states at 23.2: Individuals, groups and organizations should have access to information relevant to environment and development held by national authorities, including information on products and activities that have or are likely to have a significant impact on the environment, and information on environmental protection measures, <<http://www.un.org/esa/dsd/agenda21/index.shtml>>; for an example of Forests NSW unwillingness to inform the public see *Watt v Forests NSW* [2007] NSWADT 197; the royalty rate is \$6.90/tonne for pulp logs from the Southern Region and \$13/tonne for Eden; Forests NSW has received 2 warning letters for not providing the public with publicly available documents and still every office visit there is argument on providing documents; for example in the first two weeks of August 2010 Forests NSW refused information to 5 members of the public.

¹¹⁰ Dr Gerry Bates, Lecture on Fundamentals of Environmental Law, ANU, 16 July, 2009.

¹¹¹ Macintosh A, ‘Why the Environment Protection and Biodiversity Conservation Act’s Referral, Assessment and Approval Process is Failing to Achieve its Environmental Objectives’ 21 EPLJ [2004] 288, p302.

¹¹² *Convention on Biological Diversity* (Rio de Janeiro, 5 June 1992), Entry into Force Generally and for Australia: 29 December 1993 *Australian Treaty Series* 1993 No. 32

¹¹³ *Convention on Biological Diversity*, above n111.

4. Apply precautionary principles for prevention of environmental degradation;

The Precautionary Principle is based on German and Swedish environmental laws and policies. The relationship between economic development and environmental degradation was first placed on the international agenda in 1972, at the UN Conference on the Human Environment, held in Stockholm. After the Conference, Governments set up the United Nations Environment Programme (“UNEP”), which today continues to act as a global catalyst for action to protect the environment.

By 1983, when the UN set up the World Commission on Environment and Development, environmental degradation, which had been seen as a side effect of industrial wealth with only limited impact, was understood to be a matter of survival for developing nations. Led by Gro Harlem Brundtland of Norway, the Commission put forward the concept of sustainable development as an alternative approach to one simply based on economic growth. This gave rise to the *Ministerial Declaration of the Second International Conference on the Protection of the North Sea 1987*.

After considering the 1987 Brundtland report, the UN General Assembly called for the UN Conference on Environment and Development (“UNCED”). The primary goals of the Summit were to come to an understanding that would prevent the continued deterioration of the environment, and to lay a foundation for a global partnership between the developing and the more industrialized countries, based on mutual needs and common interests, that would ensure a healthy future for the planet.

The Precautionary Principle is Principle 15:

Where there are threats of serious or irreversible environmental damage full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment.

As McClellan CJ stated:

Thus, the inherent uncertainty or bias in the scientific method combined with (generally speaking) a perennial lack of resources and a consequential lack of data to assist scientists, leads inevitably to the conclusion that there is likely to be an incomplete understanding of the full extent of the environmental impacts of any particular act or activity proposed. That prospect, supported by empirical observations gathered world-wide, led to the development of the precautionary principle as a commonsense approach to avoid or minimise serious or irreversible harm to the Environment.¹¹⁴

The precautionary principle should have been triggered prior to the RFA process beginning in 1998.

5. Apply best available knowledge and adaptive management processes;

It is absurd to allege that these principles are at the helm of native forest management, given what is observed of day-to-day forestry operations. One of the biggest myths is that Forests NSW replant after logging native forests. This is very far from the truth. Once logged and burned the forests may take decades to regenerate or they might not regrow at all, and at any rate replanting is not sufficient to offset the biodiversity losses created by clearing because of lags in species becoming established and differences in species composition.¹¹⁵ Forests are altered inexorably. The public are subsidising the logging of native forests, which hold and remove vast amounts of carbon, so they can be woodchipped and sent to Japan. This is certainly not sustainable.¹¹⁶

¹¹⁴ In *BGP Properties Pty Limited v Lake Macquarie City Council* [2004] NSWLEC 399 citing Trenorden J et al in *Conservation Council of South Australia v Development Assessment Committee and Tuna Boat Owners Association* (No 2) [1999] SAERDC 86.

¹¹⁵ Forests NSW proposed to burn 23,263 hectares just in the Southern sub-region, Forests NSW Southern Region Burning Proposals 2007.

¹¹⁶ See Performance Audit ‘Sustaining Native Forest Operations,’ Auditor-General’s Report, 2009; see this report below p31.

The government has not ensured the adoption of ESFM practices, environmental safeguards have not improved and OEH has not ensured the maintenance of existing regulatory controls.¹¹⁷

Main Indicators for ESFM: Area available, Growing Stock, Wood Supply and Value

Data available states a two percent loss of native forest area available for logging during the period 1999 to 2005. There has been no data provided and no information given for total growing stock on timber production land. This is questionable. This is not surprising given the last three Auditor-General's opinions found in Forests NSW annual reports.

Wood supply agreements are between Forests NSW, the sawmills and the chipmill. The new wood supply agreements have no review clause and the authors note the lack of information on what public consultation went into making this decision. Full documentation regarding the 2005 and 2009 wood supply agreements should be made publicly available.

Forests NSW give no data on value of logs harvested and there seems to have been no monitoring undergone. ABARE collect a large amount of national data on the value of logs harvested.

The Auditor-General stated:

The Commission made various assumptions relating to the valuation of native forests. We were unable to confirm the assumptions used were statistically reliable.¹¹⁸

'Sustainable' Yield

In 1998 Forest Resource and Management Evaluation Systems ("FRAMES") data was run using all land tenure, that is, land that would be included in the future reserve system. Later Forests NSW hid real data from the Auditor-General audits by amalgamating plantation and native forest volume figures.¹¹⁹ Further the native forest logging industry has increasingly been overcutting to meet wood supply agreements and has not undertaken legislated reviews of sustainable yield.

The term ESFM was used in drafting of forestry law and delegated legislation. State and Federal Governments confirmed their commitment to the *National Forest Policy Statement 1992* by agreeing to develop and implement Ecologically Sustainable Forest Management.¹²⁰

As a requirement of ESFM NSW agreed to undertake a review of Sustainable Yield every five years using FRAMES and information bases. Results of which would inform the annual volume which could be logged from the Southern region 'being mindful of achieving long-term Sustainable Yield and optimising sustainable use objectives consistent with this Agreement'.¹²¹

The authors would agree with Mr Scott Spencer in that Forests NSW are not aware of the meaning of the term

¹¹⁷ The *Southern Region Forest Agreement 2002*, Environmental Management Systems 2.1, "The EMS shall be the mechanism by which Forests NSW will implement commitments and obligations under the NSW *forest agreements* and RFAs and effectively contribute to Australia's international obligations under the Montreal process" ESFM 'initiatives' are in s2.11.

¹¹⁸ The Auditor-Generals Report to Parliament, vol 1, 2009, < http://www.audit.nsw.gov.au/publications/reports/financial/2009/vol1/pdfs/31_0173_forestry_commission_of_new_south_wales.pdf >.

¹¹⁹ Auditor-General's Report to Parliament, vol 1, 2009, at < http://www.audit.nsw.gov.au/publications/reports/financial/2009/vol1/pdfs/31_0173_forestry_commission_of_new_south_wales.pdf >.

¹²⁰ *Regional Forest Agreement for the Southern Region of NSW 2001* s7(a); *Forestry and National Park Estate Act 1998 Integrated Forestry Operations Approval for the Southern Region* cl 7(1); the PNF Code carefully avoids the word sustainable but provides: 'supply of timber products from privately owned forests at a regular rate that can be maintained indefinitely for present and future generations'.

¹²¹ *Regional Forest Agreement for the Southern Region of NSW 2001* cl 8; like all reviews legislated for forestry operations either undertaken four or five years late or not undertaken at all, this review has not been undertaken.

‘required’:

It is somewhat concerning that Milestone 41 relating to the requirement (i.e. it is not optional) to produce annual reports of progress on meeting regional ESFM targets in ESFM Plans has not been delivered. This is surely central to accountability under the RFAs.¹²²

The statutes provide clear direction and guidance as to their intent for interpretation of supply commitments contained in RFAs. It is provided that Regional ESFM Plans, *Forest Agreements* (“FAs”), and IFOAs will collectively specify the wood supply commitments and their relationship to Sustainable Yield.¹²³ Further it was stated when the Southern IFOA was in process of enactment:

the IFOA also contains maximum timber volumes allowed to be harvested annually.¹²⁴

Allowable volume of trees logged is legislated to be based on ‘sustainable yield’ and FRAMES. The volume of pulp removed in the Southern region for the period 2002 to 2007 is equal to twelve percent above the legislated allowable cut.¹²⁵ This is above the five percent allowed in IFOA clause 5(a) where it provides, in essence, that Forests NSW must stay within the five percent range.¹²⁶

It is alleged that allowable volume figures in legislation can be overridden by contractual commitments.¹²⁷ This seemingly defeats the purpose of sustainable yield and indeed legislation. On this assumption terms such as ‘no more than’ and ‘up to’ therefore are taken to mean minimum volumes. If we were to take this erroneous assumption further it would mean the legislation and delegated legislation serves no purpose.

The focus on the one term ‘reflects contractual commitments’ at the expense of remaining legislation is in itself indicium. There are many other clauses in various pieces of legislation, intended to work in conjunction with each other. Assumptions that there is no maximum volume required therefore seems in tension with the objects of legislative instruments.

Overcutting

Dominating much desktop and industry documents is claims that strict public forestry regulation and ‘locking up’ of areas has caused the need for private forestry.¹²⁸ However, long before RFAs were enacted, questions of whether the native forest logging industry was sustainable were being asked.¹²⁹ It seems real causes of lack of wood supply are overcutting and erroneous figures of sustainable yield. This has resulted in shortened rotation times.¹³⁰

¹²² *Final Report on Progress with Implementation of NSW Regional Forest Agreements: Report of Independent Assessor*, November 2009<http://www.daffa.gov.au/__data/assets/pdf_file/0007/1546711/assessors-report.pdf >, viewed 24 July 2010.

¹²³ *Southern Region Forest Agreement 2002* 8(2)(a); the Southern, Eden and Northern ESFM plans are due to expire this year.

¹²⁴ Recommendation letter to enact IFOA, Letter (HOF2042) from David Nicholson NSW EPA to DPI, 18 April, 2002, signed by Director Waters and Catchments Policy (signed 18/4/02), Acting Assistant Director General (Water and Air), Director General (signed Lisa Corbyn 19/4/02).

¹²⁵ A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Appendix 4, p227.

¹²⁶ *Forestry and National Park Estate Act 1998 Integrated Forestry Operations Approval for the Southern Region* cl 5(a); *Forestry and National Park Estate Act 1998 Integrated Forestry Operations Approval for the Eden Region* cl 5(a).

¹²⁷ *Forestry and National Park Estate Act 1998 Integrated Forestry Operations Approval for the Southern Region* cl 5(3) To avoid doubt, the quantities of timber products specified in paragraphs (a) and (b) of subclause (2) do not impose any limitation on the quantities of those products that may be harvested under this approval. The quantities referred to simply reflect contractual commitments existing at the date of this approval.

¹²⁸ This erroneousness is perpetuated within the IFOAs themselves see *Forestry and National Park Estate Act 1998 Integrated Forestry Operations Approval for the Southern Region* Note for cl 5(b).

¹²⁹ See *South East Forests Conservation Council Inc v Director-General National Parks and Wildlife and State Forests of NSW* [1993] NSWLEC 194, Deputy Director (Policy and Wildlife).

¹³⁰ The current rotation times are between 5-15 years; for example compartment 62 of South Brooman State Forest has had ‘Timber Stand Improvement’ twice and been logged nine times since 1954, which is virtually every six years; see Southern Region - Compartment 62, South Brooman State Forest, Bateman’s Bay Management Area, Harvest Plan approved 8/5/09.

The NSW Scientific Committee suggests a safe rotation period for species conservation is 150-220 years.¹³¹ Analysis using this rotation period over a fifteen year timeframe in the Southern region would suggest 50-90 compartments should have been logged, yet more than six times that, a total of 355 compartments, have been clear felled or patch clear felled.¹³²

In a letter dated 29 October 1998 from Ross Sigley, Forests NSW sales manager, Northern Rivers region it states:

It has taken us just 2 years to completely exhaust the quota volume in Casino, Urbenville, and Murwillumbah MA's and Tenterfield is all but finished. It must dawn on our top resources people eventually that stands carrying a level of volume which is only a fraction of their capacity are already seriously in trouble. The only way to realise any of the volume that is there...would be to have an unlimited pulp market and clear fall the forest...

I suspect they [the greens] do know that we are playing the game of Brer rabbit. I hope a re-run of the frames data without using the plots that end up in the reserve system will give a more realistic picture [of the] state of the forests...I wait with hope that the Frames data can deliver some figures, which support what we know to be the case on the ground. We have just one last chance to come clean and be honest about the way things are before this UNE RFA is signed. State Forests will be held accountable for whatever happens as a result of the RFA decision and if the industry has been led to believe that the volume is there in this part of the State then we should be held responsible...¹³³

A memo from Ron Wilson, Forests NSW Marketing Manager to Bob Smith CEO of Forests NSW on a meeting with Davis and Herbert in 2001 is revealing.¹³⁴ Davis and Herbert (now Boral) expressed dissatisfaction with Forests NSW supply of logs. The companies allocation was 8000 cubic metres. Forests NSW stated 'the company is currently undercutting its allocation of high quality large sawlogs'. The company claimed the reason they were undercutting was that Forests NSW had not provided sufficient areas to produce sawlogs. Forests NSW denied there were any problems of supply but offered to extend the allocation period and 'let the company cut the 8000cu over two years'. Forests NSW also stated Davis and Herbert were at fault because they weren't 'value adding'. The company stated they were unhappy about 'log merchandising' and that timber was being sent 'elsewhere' which could be used by the company. Forests NSW told the company that 'without a residue market on the south coast the cost of producing sawlogs will be significantly higher'.¹³⁵

Unfortunately in the Southern and Eden regions there is an unlimited and voracious pulp market. A rerun of FRAMES was due in 2006 as part of ESFM requirements. No rerun of FRAMES has yet been undertaken. Review or no review, logging more intensively will effect remaining stand condition and ultimately sustainable yield. Given overcutting whether public and private native forestry can ever achieve the ideal of ESFM is doubtful.¹³⁶

The FRAMES industry modelling system used to derive volumes substantially over-estimated available timber volumes. To achieve the unsustainable volumes sought for the first twenty years, the system has had to dramatically over-cut for twenty years and thus result in much decreased volumes available thereafter. This is

¹³¹ *Loss of Hollow Bearing Trees Key Threatening Process*, Department of Environment, Climate Change and Water, NSW Threatened Species Website, < http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/threat_profile.aspx?id=20079 > viewed 25 July 2010.

¹³² Forests NSW Compartment Map and Annual Logging Records for period 1995 to 2010, this shows 680 total number of compartments.

¹³³ New South Wales, *Legislative Assembly*, Forestry and National Park Estate Bill, 17 November, 1998, (Fraser), p10052.

¹³⁴ Forests NSW internal memo Ron Wilson to Bob Smith and Gary Keating, 9 October 2001, H.O. 61342; the 'Use or Lose' 20 yr wood supply agreement provides for 'increased volumes of HQL and small sawlogs at one half of the company's intake' as of 2001.

¹³⁵ Forests NSW internal memo, above n133.

¹³⁶ Lunney D, Matthews A, Eby P, and Penn A M, 'The Long-Term Effects of Logging for Woodchips on Small Mammal Populations' (2009) 36 *Wildlife Research* 691; see Gibbons P, Lindenmayer D B, Barry S C, Tanton M T, 'The Effects of Slash Burning on the Mortality and Collapse of Trees Retained on Logged Sites in South-Eastern Australia' (2000) 139 *Forest Ecology and Management* 51.

clearly reflected in the industry modelling, which shows a volume reduction of almost fifty percent after 2018. For example, in the Eden Region, in 2008, Forests NSW was over quota and have been over quota for each of the previous nine years.

Notably, in 2003 the NSW Government re-issued timber supply contracts, without conducting the promised timber review, for a further twenty years (thus extending the contracts out to 2023). Therefore, timber supplies have been committed outside the twenty year timeframe of the RFAs, without a wood supply review or any required RFA review. These contracts have been extended well past the point at which timber supplies will fall in 2018.

The erroneous audacity of the claim that the review of the FRAMES systems and processes ‘also meets the milestone as it applies to the Southern region’ is obvious. One aspect is applicable:

The robustness of wood supply estimates...are commonly evaluated by conducting large numbers of scenario analyses rather than by consideration of statistical measures....If the level of cut is set at a high level...in the short-term and growth is less than expected, then over-cutting will occur and the predicted long-term cut will not be sustainable.¹³⁷

It was made known by the NSW Auditor-General that Forests NSW does not routinely compare harvesting results to its yield estimates. However the authors consider these reviews necessary to test the validity of Forests NSWs estimates.¹³⁸ No tangible efforts have been made by Forests NSW to ensure sustainability or to produce any reporting showing that efforts are being made. Forests NSW are operating in the gloom of uncertainty. For the Upper and Lower North East region the Auditor-General stated:

To meet wood supply commitments, the native forest managed by Forests NSW on the north coast is being cut faster than it is growing back.¹³⁹

The authors believe this to be true for the Southern region, if ever real data becomes available. The audit report mentioned for Southern was not completed by June 2009. ‘It may not be ready until mid 2010’ and ‘the report will be ready by June 2010’. The report is still not available as of June 2011.

It is my understanding that the review of the sustainable yield for the Southern Region was expected to be completed by June 2009 but is still being done. Forests have indicated it will take time to check the review and are unlikely to publish the results and methods of calculating the sustainable yield (covered by Milestone 54 in the RFA review report) before mid-2010.¹⁴⁰

Removal of Products from Forest Ecosystems

The level of firewood removal from the Southern Region is significantly greater than other RFA areas. There is no evidence of studies/reports that have been undergone to review whether this level of removal is sustainable. There have been calls for help to stop the rampant firewood removal from the Goulburn area especially from private land and leasehold land sources.

Honey is one of the few viable products from State forests. Of particular concern to bee farmers is the knowledge that:

forestry activities that remove flowering and/or mature trees are a continuous threat to the floral resources accessed by

¹³⁷ Forests NSW, ‘A Review of Wood Resources on the North Coast of New South Wales’ September (2004) p12.

¹³⁸ Performance Audit In Brief, NSW Auditor-Generals Report to Parliament, April 2009 p2.

¹³⁹ Performance Audit ‘Sustaining Native Forest Operations,’ Auditor-General’s Report, 2009; it was also stated ‘reviews of yield estimates for the southern region, due in 2004 for Eden and 2006 for Tumut and the south coast, have not been completed.’

¹⁴⁰ Michael Davies, Department of Environment and Climate Change, Environment Protection and Regulation Group, Crown Forestry Policy and Regulation Section (ex-Resource and Conservation Unit) 14/7/09.

beekeepers.¹⁴¹

The four year study undertaken by Law et al amounts to one page in a report on honeybees. It states:

This project has shown that current logging practices in NSW halve the nectar resource.¹⁴²

Removal of Wood Products Compared with Sustainable Volume

Any data given by Forests NSW does not describe accurately the relationship to forest cut versus sustainable volume, due to the lack of independent sustainable yield review data. Merely reporting on to what extent wood supply commitment volumes are being met does not address questions of sustainability. Without knowledge of volume and regeneration rates the assurance that wood supply agreements can be met without degrading the ability of the forest to maintain supply in perpetuity is an erroneous assertion.

The information Forests NSW has provided does not describe accurately the relationship to forest cut versus sustainable volume, due to the lack of independent sustainable yield review data. Merely reporting on what extent wood supply commitment volumes are being met by providing excerpts of FAs, RFAs and the IFOAs does not address questions of logging over quota.

If this information provided is the best on offer after ten years then the assumption is that this reports assertions are correct. It seems Forests NSW are relying on what is 'generally referred to' and one or two clauses without detailed analysis of the whole of legislation approach nor any real evidence of volume figures.

Statutes provide guidance as to their intent at the beginning, usually in an 'objects clause'. Courts prefer interpretation of statutes that promote objects of legislation. At clause 1.4(d) of the *Southern Region Forest Agreement 2002* it states:

In making this agreement we:

d) State that the overriding intention of forest management across all tenures is to maintain and enhance all forest values in the environmental, social and economic interests of the State.

Clause 7 of the IFOA states:

(1) In carrying out, or authorising the carrying out of, forestry operations SForests NSW must give effect to the principles of ecologically sustainable forest management

In the Southern RFA it states NSW agrees to:

undertake a review of Sustainable Yield every five years using enhanced FRAMES systems and information bases. The results of which will inform the annual volume which may be harvested from Southern region (or sub-region) being mindful of achieving long-term Sustainable Yield and optimising sustainable use objectives consistent with this Agreement.¹⁴³

The fact that the sustainable yield audits have not been undertaken is indicative of the inherent failure of the whole native forest logging industry to abide or adhere to any legislated requirements.

Allowable Volume of Logs

The allowable volume of trees logged was legislated to be based on 'sustainable yield' and FRAMES. Forests NSW alleges that the allowable volume figures in the legislation can be overridden by contractual commitments. This defeats the purpose of sustainable yield and indeed the legislation.

¹⁴¹ Commonwealth, Senate Standing Committee, 'More Than Honey: the Future of the Australian Honey Bee and Pollination Industries' p 48, see <<http://www.aph.gov.au/house/committee/pir/honeybee/report/chapter%203.pdf>>.

¹⁴² Law B, and Chidel M, 'The Impact of Logging on Nectar Producing Eucalypts' (2007) Publication Number 07/138, Rural Industries Research and Development Corporation, Canberra <<http://www.rirdc.gov.au>>.

¹⁴³ *Regional Forest Agreement for the Southern Region of NSW 2001*.

To take this erroneous assumption further it would mean the legislation and subordinate legislation serves no purpose. This assumption therefore does not meet the objects of the various Acts and subordinate legislation. In the Southern RFA it states:

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);

To focus on one clause at the expense of the remaining legislation is in itself indicium. There are many other clauses in the various pieces of legislation. At Attachment 8 (2)(a) of the Southern RFA:

2. New South Wales will further improve its Forest Management System across forest management agencies and land tenures by:

(a) developing consistent with this Agreement, a Regional ESFM Plan, a New South Wales *Southern Region Forest Agreement*, and an Integrated Forestry Operation Approval.

They will collectively:

specify the wood supply commitments and their relationship to Sustainable Yield;

If Forests NSW cannot provide actual volume figures the authors have attempted to. The volumes are tied to the High Quality Log volumes, yet it is reported in Appendix 4 of the *Draft Interim Report* that in the Southern region the ratio started at 100:101 in 2002 and jumped to 100:240 in 2006. Below are data sets on volume logged by Forests NSW from various sources.

HQL to Pulp Ratio for the Southern and Eden Regions¹⁴⁴

Southern				Eden		
Year	HQL	PULP	% >	HQL	PULP	%>
2002/03	62 329	65 484				
2003/04	70 021	78 291	12	26 131	309 088	1 182
2004/05	53 369	64 049	20	22 434	277 952	1 239
2005/06	60 673	109 447	80	23 936	294 519	1 230
2006/07	62 272	150 700	140	19 417	314 400	1 619
2007/08	70 124	135 231	93	24 871	315 839	1 270
2008/09	62 276	113 404				

¹⁴⁴ NB: 2008 and 2009 figures are different from the 'Report to conform to IFOA Condition 31 Annual Report on Logging Operations by financial Year 2007-08'; see IFOA Condition 31 report for 2008-09 figures.

The next figures Forests NSW provided to the Auditor General:

Volume Harvested Auditor-Generals Report 2009 Appendix 1

	03/04	04/05	05/06	06/07	07/08
South Coast					
HQL	43,571	34,927	42,699	43,314	46,563
Pulp	59,055	45,894	91,583	124,992	105,172
Tumut					
HQL	26,450	18,442	17,974	18,958	23,561
Pulp	19,236	18,155	17,864	25,708	30,059
Eden					
HQL	26,131	22,434	23,936	19,417	24,871
Pulp	309,088	277,952	294,519	314,400	315,839

These figures are based on data provided by Forests NSW who have proved to be erroneous in the past. From data analysis and observation these figures should be much higher. Also note that South Coast and Tumut are now the one area called Southern.

The following figures were provided by Forests NSW to Terrence Digwood (FOI Request):

		Eden			Southern	
year	HQL	PULP	area	HQL	PULP	area
98/99	36,237	317,508	3,238	43,253	59,303	
99/00	27,770	352,282	3,170	39,165	51,356	
00/01	31,656	337,434	4,254	34,618	69,030	
01/02	26,846	278,379	3,339	34,056	42,735	3,794
02/03	25,558	313,896	3,546	54,581	55,224	3,710
03/04	29,726	320,581	4,160	52,094	60,210	4,363
04/05	28,286	297,080	3,580	43,568	64,050	3,361
05/06	27,922	307,669	4,786	51,416	91,854	5,095
06/07	22,839	342,914	5,043	49,995	107,367	7,618

These are the volume figures in the Southern and Eden Regions according to the Draft RFA Implementation Report, page 121 and 122. The Pulp figures for Southern are at Appendix 4, p227.

Eden			Southern	
Year	HQL	PULP	HQL	PULP
1999	23 735	352 282		
2000	27 056	337 434		
2001	25 329	279 854		
2002	21 901	313 870	62 329	65 484
2003	26 131	309 088	70 021	78 291
2004	22 434	277 952	53 128	64 049
2005	23 936	294 119	60 673	109 447
06/07	19 417	314 400	62 272	150 700

The annual IFOA Implementation Reports figures are:¹⁴⁵

	Eden		Southern	
YEAR	HQL	PULP	HQL	PULP
01/02	25 329	279 854		
02/03	24 068	313 870	62 329	65 484
03/04	26 131	309 088	70 021	78 291
04/05	22 434	277 952	53 414	64 049
05/06	23 936	294 119	60 673	96 087
06/07	20 408	324 960	57 982	115 808

Pulp is defined as being subservient to logging of High Quality Logs (“HQLs”). This is the intent of RFA clause 83 as the volumes referred in RFA cls 80, 81 and 82 are to be as a by-product of harvesting for the volumes specified in RFA cl 76. These volumes also include the volumes obtained from thinnings and timber products, which are related to the committed volumes and also to sustainable yield.

As evidenced by all the figures and amounts shown, pulp can in no way be interpreted to be subservient in either region. It seems the actual volume of pulp removed in the Southern region for the period 2002 to 2007 is equal to twelve percent above the allowable cut.¹⁴⁶ This is above the five percent allowed in IFOA clause 5(a). In essence Forests NSW must stay within the five percent range.

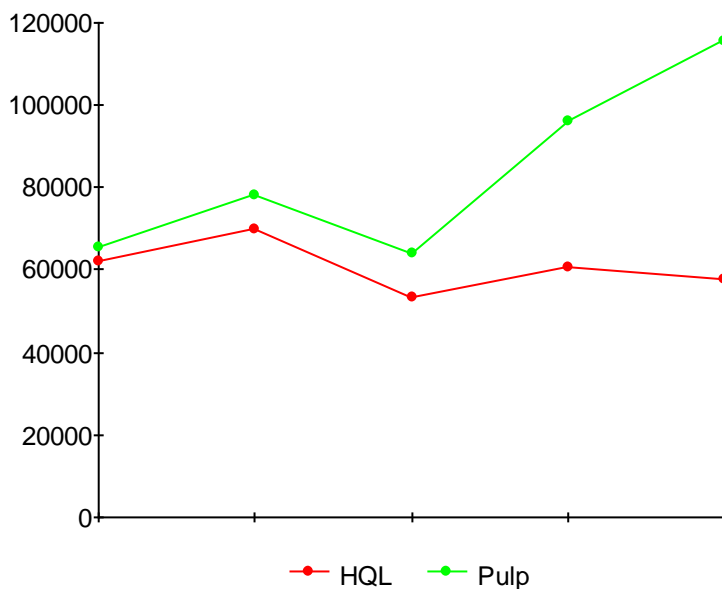
There is some concern with the differing volumes between the reports and the Digwood FOI figures. The difference is too great to be attributed to the averaging of the years. Differing reporting methods and figures are provided to obscure actual volume figures of RFA regions.

Incorrect figures aside, it can also be seen that in all the years the volume of pulp is inconsistent with the volume for HQL. The IFOAs do state that sole purpose pulp operations are disallowed, however Forests NSW have a myriad of ways around this. The the main one is to call the operations ‘thinning operations’ or ‘Australian Group Selection’ or ‘Modified Shelter Wood’. As most logging now is done by mechanical harvesters this renders most logs unfit for being a sawlog and creates pulp.¹⁴⁷ We would have to strongly disagree that compartments in the southern and Eden regions are chosen ‘for the volume of high quality sawlogs they can deliver’. On ground evidence suggests compartments are logged to meet the wood supply agreements for pulp with SEFE.

¹⁴⁵ 2006 IFOA Implementation Report for 2001/02; 2007 IFOA IR for 2002/03; 2008 IFOA IR for 2003/04.

¹⁴⁶ A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Appendix 4, p227.

¹⁴⁷ Connell M J, ‘Log Presentation: Log Damage Arising From Mechanical Harvesting or Processing’ Prepared for the Forest and Wood Products Research and Development Corporation, Project no: PN02.1309, CSIRO Forestry, (2003).



Consistency

Volumes of HQL over the past five years from South Coast sub region have been lower than the committed volume of 48 500m³, ranging from 2 000m³ to 11 000m³ under. In 2006-07 HQLs volumes were 43 314m³. Pulp volumes should also have stayed relatively constant or been ‘consistent’ at around the 2002/03 and 2003/04 volumes of approximately , yet the figure was 150 700t.

Continuing supply of *high quality small (HQS) logs* and provision of *residue timber* for charcoal and *pulpwood* **consistent** with the *HQL log* volumes in the Region will also occur.¹⁴⁸

And:

The harvest intensity will be determined by the 48 500 m³ HQL commitment and not commitments for *residue timber*.¹⁴⁹

Forests NSW have departed from the legislation, evidenced by the dramatic increase in pulp volume logged. Therefore pulp figures are definitely not consistent with the HQL figures.

If there is no maximum figure markets can keep demanding more ad-infinity, this is impossible when constrained by sustainable yield. The only way volumes can be increased is by logging more area, or by logging more intensively. Both of these outcomes will have an effect on sustainable yield.

If the maximum volume for pulp is 97 000t per year and Forests NSW have logged 102 372t on average for the past seven years then, as evidenced, Forests NSW are definitely logging over quota. Unless this figure was deliberately set as a smoke screen to have it seem that the industry was sawlog driven then this figure must stand as a maximum figure.

While RFA clause 82 states that supply of other forest products will be ‘in accordance with current and future market demands’, this must be taken in context with sustainable yield. Committed volume is already above sustainable yield thus there can be no increased volumes on the basis of market demand without throwing

¹⁴⁸ The Southern Region Forest Agreement 2002 (NSW), p25.

¹⁴⁹ The Southern Region Forest Agreement 2002 (NSW), p27.

sustainable yield out the window.

The pulp volume in RFA clause 80 is a maximum volume until there has been a recalculation of sustainable yield showing that this can be increased. The volumes for the various timber products in the RFA and FA are the only volumes allowed unless the agreements are amended. There has been no recalculation of sustainable yield nor have the agreements been amended. As these have not occurred there must therefore be a breach of the RFA and FA by Forests NSW.

It is clear the intent of all the various Acts and Agreements is the establishment of an ESFM framework as the core principle for the management of the forest estate of NSW. It is also clear that sustainable timber yield is a cornerstone of ESFM. Timber volumes that are unsustainable will have negative implications for not only the environmental values of forests but also for future socio-economic values.

The review response from the NSW government is thus:

ESFM criteria and indicators were established to track changes in a range of social, economic and environmental values. EFSM criteria and indicators were reviewed in relation to practicability, measurability, cost effectiveness and ease of implementation at the regional level. The review of the EFSM criteria and indicators has also aligned criteria and indicators with national indicators wherever practical.

A report entitled ESFM Criteria and Indicators for the Upper North East, Lower North East, Southern and Eden regions of NSW will be published as a separate document to this report. The ESFM criteria and indicators report will specify the revised ESFM criteria and indicators, and will include information on the rationale, potential data sources and potential interpretation of data for each indicator. The reporting timeframe for all indicators will also be extended to five years.

Exactly when this report will be made available is unknown.

In Depth Analysis of ESFM and Over-logging in the Eden Region (Ecologically She's Finished Mate)

The annual yields of timber currently supplied from the Eden region are not sustainable because:

- * The use of clear-fell logging which converts multi-aged forests into regrowth precludes the maintenance of forest values in perpetuity and breaches criteria for ecological sustainability.
- * The 'sustained yield' volumes included in the Integrated Forestry Operations Approval were not based on a legitimate run from the Forest Resource and Management Evaluation Systems ('FRAMES') software, but were merely derived by applying an inflated mean volume per hectare figure.
- * Data shows that the estimation process that FRAMES was based on – predicting alternate coupe volumes from logged coupes – is unreliable, but estimates have not been updated to account for this fact.
- * The committed annual yield volumes have been consistently overcut by Forests NSW in breach of the Forest Agreement and RFA.

The timber volume of 23,000m³ that is common to all Eden agreements is not a minimum volume but a maximum volume. This volume can only be increased by a recalculation of sustainable yield using enhanced FRAMES.

The timber volume allocated in the NSW FA/RFA for the Eden region is not derived from a legitimate FRAMES run and is not a sustainable yield volume. The allocated volume is approximately 2,350m³ above sustainable yield which over the past ten years has seen more than one years worth of future timber volume

already harvested. When combined with the actual over cutting of timber volume above that allocated, the future timber supply has been severely compromised.

This situation should have been rectified years ago when the review of sustainable yield was due to be conducted and if OEH enforced compliance with the allocated timber volumes being harvested by Forests NSW. It is indicative of the failure of the NSW FA and RFA process and outcomes to deliver truly sustainable forest management.

Forests NSW is claiming that timber supply is tight and that they have long term timber contracts to fulfil as to the reasons why they have to log the Koala habitat of Mumbulla SF. The real reasons are that the long term contracts are based on unsustainable yields and that Forests NSW have mismanaged the forest by over cutting.

Even if Forests NSW log the contentious areas it will not solve the long term problems that have already been caused. Therefore the NSW Government needs to cease all operations in the Eden region due to the unsustainability of these forestry operations. Industry buyouts and a move to the plantation estate are required immediately to protect the remaining multi-aged forests.

The concept and principles of ESFM have been adopted by the Commonwealth and State Governments as an essential element of forest policy in Australia. These concepts and principles have been developed and refined over time as new information has been obtained and international treaties or protocols adopted.

The FA for the Eden Region 1999 has the following definition for ESFM.

“ecologically sustainable forest management (ESFM) is managing forests so that they are sustained in perpetuity for the benefit of society by ensuring that the values of forests are not lost or degraded for current and future generations. ESFM applies to all forest tenures.”

The RFA for the Eden Region 1999 has a definition for sustainable yield which ties in with the definition of ESFM.

“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 yield plays a major role in the credibility and integrity of ESFM and without this core component any claims that forestry operations are in accordance with ESFM are false and misleading.

This report demonstrates that the concept of ESFM and especially ‘sustainable yield’ have been abused during the CRA process by the granting of unsustainable timber volumes and the subsequent over cutting for many years above these timber volumes by Forests NSW.

It is for this reason that Forests NSW are claiming that timber supply is tight and that they only have ‘2 to 3 years timber supply from the multi-aged forests’.¹⁵⁰ This situation is of Forests NSW own making with OEH and the government sharing culpability for failing to monitor the sustainability of timber volumes.

Legislation and Agreements in Relation to Eden ESFM

The *National Forest Policy Statement 1992* outlined objectives and policies for the future of Australia’s forests.

¹⁵⁰ Ian Barnes, Forests NSW Regional Manager, pers com to Daines.

ESFM has been incorporated in this statement in the vision, national goal and specific objectives and policies chapters.

The NFPS vision statement states:

The Governments share a vision of ecologically sustainable management of Australia's forests. This vision has a number of important characteristics... Forests and their resources are used in an efficient, environmentally sensitive and sustainable manner.

In the National Goals chapter it says 'The goal is for Australia to develop internationally competitive and ecologically sustainable wood production and wood products industries.'

The Objectives and Policies chapter, section 4.1 Conservation-ESFM and codes of practice says 'ESFM will be given effect through the continued development of integrated planning processes, through the codes of practice and environmental prescriptions and through management plans that, among other things, incorporate sustainable yield harvesting practices.'

Section 4.3 Intergovernmental arrangements- Comprehensive regional assessments also states '...In this respect, the guidelines will cover, for example, management for sustainable yield...'

Forestry and National Parks Estate Act 1998

The FNPE Act enables the making of NSW FAs. Clause 15 requires a regional forest assessment to be carried out prior to making a FA, and part of the assessment is to include ESFM.

Clause 16(2) states that a forest agreement must contain;

provisions that promote ESFM

provisions with respect to sustainable wood supply from forestry operations covered by the agreement.

The inclusion of ESFM principles and especially sustainable timber supply in the FNPE Act is important as this act forms the legislative basis for the NSW FAs and IFOAs to be made and these in turn enable RFAs to be made, all of which have driven forest management for the last 10 years. It should also be noted that s40 of the act takes away the rights of third parties to take legal action against Forests NSW for breaches of this act, NSW FAs, RFAs and IFOAs.

NSW Forest Agreement for the Eden Region 1999

Following on from the CRA for the Eden region a NSW *Forest Agreement* came into effect in March 1999. The agreement sets out the principles and strategic framework for the cooperative management of all forests by the government and its agencies.

Section 2 is titled Promoting ESFM in the Eden region. Section 2.2.1 requires the preparation of regional ESFM Plans, and that these plans must have the status of management plans under the Forestry Act 1916.

Section 2.10.1 acknowledges that 'ESFM is the guiding philosophy for forest management'. Criteria and indicators for ESFM have been developed to evaluate and review the sustainability of forest management practices. Section 2.10.2 lists the ESFM indicators adopted for the Eden region. Under the criteria *The Productive Capacity and Sustainability of Forest Ecosystems*, indicator 2.1b requires reporting on the 'annual removal of timber and non- timber products from forest ecosystems compared with those estimated to be ecologically sustainable by tenure'.

Section 3 sets the framework for sustainable timber supply for the region. Section 3.1, *Sustainability strategy for timber supplies*, sets the High Quality Large Sawlog (HQL) timber volume at 23,000m³ from the Eden region, 1,000m³ from Ingebirah and 1,000m³ for the first 5 years from the South Coast region. ‘Any increases to these volumes must be sustainable and consistent with modeling using the Forest Resource And Management Evaluation System (FRAMES)’.

Section 3.5 *Timber Resource Assessment* requires the refinement of resource availability. This is to be achieved through improvements to FRAMES and resource inventory measurement. Comparison of actual volumes to predicted volumes are to be made. These results must then be used to ‘review the performance in achieving the implementation of sustainable yield of timber products’.

Regional Forest Agreement for the Eden Region 1999

The RFA is an agreement between the State and Commonwealth Governments to facilitate forestry operations. In the agreement the Commonwealth acknowledges that the State Government has undertaken a CRA and created a CAR reserve system. In return the Commonwealth exempts RFA regions from the EPBC Act and export control regulations.

Developing and implementing ESFM in the Eden region is a fundamental aspect to the RFA and many clauses deal with this issue. Clause 46 (c) requires NSW to publish a Regional ESFM Plan under the Forestry Act 1916 and 46 (f) requires a review of sustainable yield consistent with attachment 11 of the RFA and FRAMES.

While clause 72 notes the NSW FA for Eden “*establishes the sustainability strategy for timber supplies*”, clause 73 confirms the timber volumes contained in the NSW FA. Clause 76 requires NSW to review timber volumes using processes described in cl 46 (f), and only additional sustainable timber volumes are to be made available.

Clause 95.6 requires NSW in accordance with cl 46 (f) to review sustainable yield consistent with attachment 11 and FRAMES in time for the first 5 year review. It should be noted that a failure to comply with cl 46 (f) and review sustainable yield by the first 5 year review is a trigger for termination of the RFA (cl 99 (iv)).

Attachment 11 *Sustainable yield systems and processes* sets out the requirements for reviewing sustainable yield calculations. Point 4 requires any changes to the volumes in clause 73 to be based on sustainable yield and consistent with FRAMES.

Integrated Forestry Operations Approvals

The IFOA brings all the environmental assessment, planning, and regulatory regimes that apply to forestry operations together into one document. There is a general requirements section, called the non-licence conditions, an EPL, TSL and a Fisheries Licence.

It is clauses 5(2) (a) and 5(3) of the non-licence conditions that define the volume of HQL that can be harvested each year.

5. Description of forestry operations to which this approval applies

(2) *This approval applies to logging operations, being the cutting and removal of timber for the purposes of producing any of the following:*

(a) *High Quality Logs (including an amount of up to 23,000m³ per year, being a quantity*

which reflects contractual commitments existing at the date of this approval);
(3) To avoid doubt, the quantities of timber products specified in paragraphs (a) and (b) of subclause (2) do not impose any limitation on the quantities of those products that may be harvested under this approval. The quantities referred to simply reflect contractual commitments existing at the date of this approval.

It is clearly impossible to have a sustainable yield that is based on contractual commitments alone.

ESFM plan for Eden region

Part 7 of the ESFM plan pertains to sustainable timber supply with the policy statement saying: *'Forests NSW will optimize the supply of timber products within ecological constraints and within a long term framework as specified in the Regional Forest Agreement for Eden NSW'.*

The background section starts with *'The NFPS identifies ecologically sustainable wood production..... as one of the broad national goals for native forests'*. It then goes into a description of FRAMES. This is trying to infer that the figures used in the plan have some validity as sustainable yield from FRAMES. It will be shown later that the timber yield in the ESFM plan is not a FRAMES volume.

In the section *Ecological sustainability of wood supply* it says *'Ecological sustainability is assured by incorporating an ecological framework in the modeling process and applying the Integrated Forestry Operations Approval for Eden Region (IFOA) and license conditions during operations.'*

The ecological framework is comprised of...

Periodic review of wood availability and supply commitments based on monitoring of areas and volumes harvested and improvement of the FRAMES models'

Page 4 of the ESFM plan has a table titled *'Developing Ecological Sustainability in Wood Supply in Eden Region'*. This has the gross area of native forest at 156,963ha, a net area of 137,510ha and a net harvestable area ("NHA") of 124,071ha for an annual volume of 23,000m³. The net area excludes Forest Management Zones ("FMZ") 1, 2 and 3a. The NHA excludes FMZs and all other mappable features.

Analysis of Sustainability of Eden Timber Yields

FRAMES was designed during the CRA process as a tool to determine the ecologically sustainable timber yield for forest regions under various management systems and NHAs. The Eden FRAMES Report 12/5/98 formed the basis for the timber volumes adopted in the NSW FA and RFA for Eden.

Whilst there are many concerns with aspects of FRAMES methodologies, assumptions and error limitations, the estimates produced by FRAMES are all there is to calculate sustainable yield and FRAMES should be regularly reviewed, updated and adhered to. Any changes in sustainable yield need to be validated by FRAMES as required by the NSW FA and RFA. However, the yields of timber currently supplied from the Eden region are not sustainable because:

1. The use of clear-fell logging which converts multi-aged forests into regrowth precludes the maintenance of forest values in perpetuity and breaches criteria for ecological sustainability.
2. The 'sustained yield' volumes included in the IFOA were not based on a legitimate run from the FRAMES software, but were merely derived by applying an inflated mean volume per hectare figure.

3. Data shows that the estimation process that FRAMES was based on – predicting alternate coupe volumes from logged coupes – has become increasingly unreliable, but it has not been updated to account for this fact.
4. The specified annual ‘sustained yield’ volumes have been consistently overcut by Forests NSW in breach of the FA and RFA.

Each of these four factors is addressed in detail below.

Conversion of multi-aged forests to regrowth

In the period 1997-2019 the majority of the timber volumes will come from the multi-aged forests of the region with the transition from 2016 onwards to full regrowth. Multi-aged forests are clear-felled in the Eden region in 10-100 hectare coupes, in a practice which Forests NSW refers to as ‘Modified shelterwood harvest system’. The Resource Assessment Commission in 1992 stated that even though some silviculture systems (including Modified shelterwood harvesting system) retain habitat and seed trees these systems are still classified as clear-fell logging. This conversion of multi-aged forests into regrowth forests is against the principles of ESFM and sustainable yield. The Eden region is the only region in NSW that the multi-aged forest is to be converted to a regrowth forest. It is questionable how this management strategy is to maintain all forest values in perpetuity.

One very important forest value is the ability of the forest to sustain biodiversity. The loss of hollow bearing trees has been listed as a Key Threatening Process (“KTP”) in New South Wales. The conversion of multi-aged forests into regrowth results in a massive reduction of hollow bearing trees from a sub-optimal 13+ per hectare to 2-6 per hectare. This will have a severe impact on hollow dependent fauna into the future.

Sustained yield volumes not based on legitimate FRAMES run

The analysis conducted below shows that the timber volumes in the NSW FA and RFA are not based on a legitimate FRAMES run and are higher than the sustainable yield. This analysis has at its base a comparison of the differing areas and timber volumes that have been used for different yield estimates, and compares the estimates of sustained yield from three different reserve scenarios that were considered during the development of the forest agreement.

The three scenarios are:

The base case – sustained yield over the full area of State Forest without any new reserves

The NSW department position – sustained yield available if recommended reserves are created

The actual reserve outcome – sustained yield available given the final reserve outcome and off-reserve constraints that were implemented.

Scenario area and sustainable yield

Scenario	Net area (ha) *	Sustained Yield (m ³)	Source of yield estimate	Notes
Base Case	175,401	28,300	FRAMES run	Reference Point 1 Information from Towards an Eden RFA 1998
Departmental Position	149,813	23,000	FRAMES run	Scenario B Information from Towards an Eden RFA 1998
Actual Reserve Outcome	137,510	23,000	Unknown	Regional Forest Agreement outcome Information from the ESFM Plan for the Eden region

*The net area only excludes FMZ areas and is not the NHA which further excludes other mappable features.

This comparison shows that even though the Actual Reserve Outcome resulted in 12,303 ha less available for logging than that recommended by the Government departments, the estimated timber yield was exactly the same. This timber yield is the volume that has been committed for supply through the Forest Agreements and other regulatory instruments.

The Actual Reserve Outcome estimate appears to be based on application of the average volume per hectare from the Base Case, and not from a legitimate FRAMES run. The NHA for the base Case and RFA were used to calculate the yield. This can be seen in the tables below:

Volume per hectare comparison

	Volume per hectare (m ³ /ha)
Base Case	0.18539
Reserve Outcome	0.18537

From FRAMES report, base case – RFA relationship

	Gross Area ha	Net Harvest Area ha*	Volume M3	Yield m3/ha
FRAMES	198,315	152,651	28,300	.18539
RFA	156,963	124,071	23,000	.18537
		81.27%	81.27%	

* These figures are the NHA. FMZ and all mappable exclusions have been accounted for.

It is too coincidental for the volumes per hectare to match exactly in this manner. This leads to the conclusion that the current yields were derived by applying the base case volumes per hectare to the area available after the reserves were implemented.

However, this is likely to lead to a major overestimate of sustained yield, because large areas of high yielding forest were reserved which means that the average yield per hectare can be expected to decline substantially.

Compounding the difference between the RFA and scenario B net areas is the large amount of area allocated to FMZ 3b special prescription zones in the RFA outcome. These areas generally modify the logging practices to 50% canopy reduction instead of the usual 70-90%. The effect of this volume reduction has not been estimated in this analysis.

A more accurate sustainable yield figure for the reserve outcome could be obtained from using the volumes per hectare from the Departmental Position scenario. This holds because the Departmental Position and the Actual Reserve Outcome were much closer in configuration and area than the base case was to either.

The volume per hectare for the Department Position is 0.15018m³/ha. Applying this to the Actual Reserve Outcome position of 137,510ha results in an estimate sustained yield of 20,651m³.

This shows that the RFA timber allocation of 23,000m³ is completely unsustainable by approximately 2,350m³ per annum. As this situation has been in effect for 10 years approximately 23,500m³ has been extracted from the region which is more than 1 year of supply at the sustainable yield of 20,650m³. These figures are extremely conservative as they do not take into account the volume reduction from increased FMZ 3b areas.

Unreliable FRAMES Estimation Without Proper Review

FRAMES timber volumes have reported confidence limits of $\pm 30\%$. However, there is evidence to suggest that the differences between estimated yields and actual yields are in fact far greater than this.

FRAMES relies on actual timber volumes logged in cut coups to estimate likely timber yields in uncut coups. However, the Eden FRAMES report 1998 noted that post 1994 the yield relationship between cut and uncut coups starts to break down with a subsequent decline in actual volume/ha compared to the estimated volume. The FRAMES report recommended investigation into the declining yields since 1994 as this could have important ramifications to sustainable yield calculations. However, there has been no investigation nor any change in sustained yield estimations in response to this information.

Possible causes for the decline in yield could be increased tree mortality due to Drought Associated Dieback, climate change or Bell Minor Associated Dieback. Even if BMAD or DAD are not the reason for the past decline they will become a concern for future timber volumes as the area of forest affected is increasing. The impact of climate change on future timber yields was not accounted for in the CRA process.

The NSW FA and the RFA require sustainable yield to be reviewed by the first five year review and for an independent review by the second five year review. It has been ten years since the signing of these agreements and there has still been no review of the sustained yield estimates from FRAMES. This is increasingly urgent, as Forests NSW is planning to complete the conversion of multi-age forests to regrowth within the next few years.

Consistent Overcut of Committed Yields

SEFR sent a report to OEH on 8/9/08 regarding the over cutting of committed timber yields by Forests NSW being in breach of the NSW FA, RFA and IFOA. The information detailed in the legislation section of this report and in the breach report establishes the principles of ESFM and especially sustainable timber yield. SEFR stands by its opinion that Forests NSW is in breach of the NSW FA, RFA, ESFM plan and the Forestry Act 1916 by the over cutting of sustainable timber yield.

While the RFA/FA state 'a minimum of 23,000m³ from the Eden Region' this has to be taken in the context of ESFM and sustainable yield. In both the RFA/FA it also states any increase to these volumes has to be sustainable and consistent with FRAMES. There has been no recalculation of sustainable yield to date for the Eden Region, and so although it says minimum, the 23,000m³ is also a maximum. The whole concept of sustainable yield is the maximum volume that can be harvested each year in perpetuity; any other interpretation is completely untenable in the context of ESFM and sustainable yield.

OEHs interpretation of clause 5(3) of the Eden IFOA as to why Forests NSW are not in breach of over cutting is shallow reasoning, against one of the core concepts of ESFM, against all other Acts and Agreements and is also demonstrably in error.

While clause 5(3) does seem to negate any limitations on timber volumes there are other clauses in the IFOA which also need to be taken into account and this is what is meant by shallow reasoning on behalf of OEH.

Eden IFOA

PART 2 – Provisions applying to forestry operations generally

7. Ecologically sustainable forest management

(1) In carrying out, or authorising the carrying out of, forestry operations SForests NSW must give effect to the principles of ecologically sustainable forest management as set out in Chapter 3 of the document entitled, “ESFM Group Technical Framework” (Ecologically Sustainable Forest Management Group, New South Wales and Commonwealth Governments, July 1999).

This clause states that Forests NSW must give effect to the principles of ESFM. These principles are in attachment 14 of the RFA.

ATTACHMENT 14 (clause 44)

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

Aims for values include

B The productive capacity and sustainability of forest ecosystems

Ensure the rate of removal of any forest products is consistent with ecologically sustainable levels.

Again this reinforces the concept of sustainable yield which Forests NSW must give effect to. Clause 7(2) requires Forests NSW to monitor the indicators for ESFM. As stated earlier indicator 2.1b is to report on actual yield against sustainable yield. Clause 7(3) states Forests NSW ‘*must have regard to any data or information*’ from the monitoring of indicators. This monitoring should have told Forests NSW and OEH, as OEH writes the annual ESFM reports, that over cutting of sustainable yield was occurring.

PART 7 - Miscellaneous

44. Most restrictive requirement to be complied with

(1) If, in a particular set of circumstances:

(a) more than one requirement applies to the carrying out of forestry operations, and

(b) by complying with the most restrictive of those requirements, all of the requirements will be satisfied, then the most restrictive of the requirements is the one which must be complied with.

(2) A requirement for the purposes of this clause is a requirement imposed by a term of this approval (including a term of a licence set out in this approval) or a document with which this approval requires compliance.

This clause also needs to be taken into account. As there are obviously differing requirements and inconsistency between the IFOA and other Acts and Agreements and also within the IFOA itself then clause 44 must have effect and enforce compliance with the concept of sustainable yield.

As shown earlier the FNPE Act 1998 requires provisions with respect to sustainable timber supply. SEFR finds it hard to accept that Forests NSW are not in breach of the IFOA when they are in breach of the FNPE Act which enables the granting of IFOAs.

These clauses in the IFOA override 5(3) with respect to timber volumes and obviously were not taken into account when considering SEFRs breach report.

Since sending the breach report and waiting almost a year for a reply there has been an additional cl 24 annual volume report obtained by SEFR. Updating the data in the breach report shows Forests NSW are still logging at an unsustainable level.

Section 3.3 *Timber Supply Arrangements* states '*Continuation of arrangements under existing agreements to allow for the carrying forward into subsequent years of volumes of under cut and over cut*'. This clause allows slight variations of over or undercut each year to give some flexibility due to operational constraints. While there are no values for these arrangements for Eden all other IFOA regions have the same specified values and these are applied in this analysis.

The maximum overcut allowed each year is 25% of 23,00m³ (23,000 x 1.25=28 750m³).

Every 5 years the maximum overcut allowed is 5% of 5 x 23,000m³ (5 x 23,000= 115,000m³ x 1.05=120,750m³).

At the end of the RFA period of 20 years the allowable volume harvested is to be no more than 20 x 23,000m³= 460,000m³.

HQL harvested above allocated volumes

IFOA cl24 Year	Volume	Excess	5yr Volume	excess
2000	25,378	2,378		
2001	23,726	726		
2002	25,154	2,154		
2003	26,806	3,806		
2004	26,513	3,513	127,577	6,827
2005	23,126	126	125,325	4,575
2006	24,708	1,708	126,307	5,557
2007	25,261	2,261	126,414	5,664
2008	24,311	1,311	123,919	3,169
Total		17,983		

* 23,000 x 5 x 1.05 = 120,750m³

The year 2004 was the first 5 year period for which there is available data. The 5 year volume column shows the total volume harvested in this period. The volume above 5 years + 5% column shows the volume harvested in excess of that which is allowable.

Forests NSW are still harvesting above the FA/RFA allocated volume of 23,000m³ and all 5 year periods are above the allowable volume plus 5%. The total over cut of 17,983m³ is almost one year's supply of the true sustainable yield of 20,650m³.

Inconsistency Between Data Sets

There are three different data sets on timber volumes harvested in the Eden region that are in existence. The first data set, the one that SEFR relies upon, are the annual volume reports required by clause 24 of the IFOA. These reports are to be on a calendar year basis. SEFR has been obtaining these reports since 2001.

The second data set is that contained in the annual reports on the NSW FA/IFOA which are also repeated in the

Draft Report on Progress with Implementation of the NSW RFA's. These cover the period 1999/2000 - 2006/2007 and are on a financial year basis.

The last data set is from the Auditor Generals Report- *Performance audit-sustaining native forest operations 2009* Appendix 1. It reports on a financial year from 03/04 to 07/08.

HQL harvested

Yr	CI24 IFOA	Yr	FA/IFOA/RFA	Yr	Auditor General
		99/00	23,735		
		00/01	27,056		
01	23,726	01/02	25,329		
02	25,154	02/03	21,901		
03	26,806	03/04	26,131	03/04	26,131
04	26,513	04/05	22,434	04/05	22,434
05	23,126	05/06	23,936	05/06	23,936
06	24,708	06/07	20,408	06/07	19,417
07	25,261			07/08	24,871
08	24,311				

Analysis of Data Sets

There is one obvious difference between the AG report and the FA/IFOA/RFA report for the year 06/07. After comparing the clause 24 reports and the FA/IFOA/RFA reports it is impossible to reconcile the two, with clause 24 reports showing greater timber volumes, to a significant amount in some years. Converting the FA/IFOA/RFA volumes to calendar years, eg (year ab + year bc)/2, and comparing the total volume harvested between 2001 and 2006 produces the following figures.

HQL harvested adjusted to calendar year

CI 24 IFOA Yr	Volume	FA/IFOA/RFA Report	Volume
01	23,726	01	26,192
02	25,154	02	23,614
03	26,806	03	24,015
04	26,513	04	24,282
05	23,126	05	23,185
06	24,708	06	22,172
Total	150,292	Total	143,460

The difference of 6,573m³ is too great for any slight discrepancies in the averaging method used. Only in year 2005 are the volumes in alignment. The reasons for these differing data sets need to be resolved and the exact volumes harvested reported.

Conclusion for the Eden Region

It is clear the intent of all the various Acts and Agreements is the establishment of an ESFM framework as the core principle for the management of the forest estate of NSW. It is also clear that sustainable timber yield is a cornerstone of ESFM which is being neglected. Timber volumes that are unsustainable will have negative implications for not only the environmental values of forests but also for future socio-economic values.

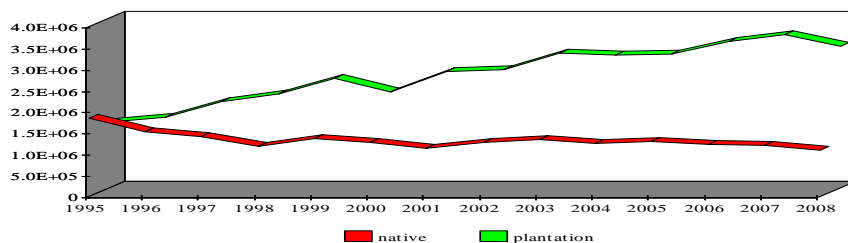
The timber volume of 23,000m³ is a maximum volume. If this volume is taken as a minimum then there can be absolutely no claim that forestry operations are conducted in accordance with the principles of ESFM and sustainable yield.

The timber volume allocated in the NSW FA/RFA for the Eden region is not derived from FRAMES and is not a sustainable yield volume. The allocated volume is at least 2,350m³ above sustainable yield which over the past ten years has seen several years of future timber volume already harvested. When combined with the actual over cutting of timber volume above that allocated in the NSW FA/RFA, the future timber supply has been severely compromised.

This situation should have been rectified years ago when the review of sustainable yield was due to be conducted with an updated FRAMES, and if OEH enforced compliance with the allocated timber volumes being harvested by Forests NSW. It is indicative of the failure of the NSW FA and RFA process and outcomes to deliver truly sustainable forest management.

Forests NSW is claiming that timber supply is tight and that they have long term timber contracts to fulfil as to the reasons why they have to log the Koala habitat of Mumbulla and Bermagui State Forests. The real reasons are that the long term contracts are based on unsustainable yields and that Forests NSW have mismanaged the forest by over cutting.

Even if Forests NSW log the contentious areas it will not solve the long term problems that have already been caused. Therefore the NSW Government needs to cease all operations in the Eden region due to the unsustainability of these forestry operations. Industry buyouts and a move to the plantation estate are required immediately to protect the remaining multi-aged forests.



Statistics on historic yields show that since 1995 Forests NSW wood production moved increasingly from native forest to plantation. As the figures show, the plantation estate has been the main timber provider prior and during the RFA period.

Native Forest, Softwood Plantation historic yields.

Year	TOTAL	Native Forest	% of total	Plantation	% of total
1995/96	3 538 554	1 822 560	51.5	1 539 213	43.5
1996/97	3 259 545	1 497 744	45.9	1 653 144	50.7
1997/98	3 512 765	1 404 370	40	2 003 050	57
1998/99	3 471 892	1 167 190	33.6	2 195 338	63.2
1999/00	4 001 015	1 340 521	33.5	2 558 613	63.9
2000/01	3 681 742	1 246 858	33.9	2 250 277	61.1
2001/02	4 116 148	1 121 121	27.2	2 712 429	65.9
2002/03	4 133 000	1 257 497	29.2	2 765 514	64.3
2003/04	4 489 397	1 331 225	29.6	3 158 172	70.3
2004/05	4 334 034	1 233 249	28.5	3 100 749	71.5
2005/06	4 445 424	1 276 113	28.7	3 138 478	70.6
2006/07	4 696 032	1 212 403	25.8	3 433 210	73.1
2007/08	4 827 955	1 190 251	24.6	3 582 127	74.2
2008/09	4 454 402	1 076 966	24.1	3 306 452	74.2

Figures from Forests NSW Annual Reports.

Conclusion for Both Regions

There is no justification for the sharp rise in pulp volumes over the past three years other than trees are being felled specifically for pulp, at a substantial loss to the taxpayer, to subsidise the profits of SEFE.

An analysis of compartments logged in the past five years shows that the quality of forest has remained relatively constant and therefore volumes should also have stayed relatively constant. The volume figures for pulp have risen dramatically, no matter which figures are used. The only way for this to happen is by logging more intensively, which will affect the remaining stand condition and ultimately sustainable yield.

As stated above there has been no noticeable difference in forest quality and so the only explanation is that pulp operations are the driving force in the region, not HQL as is alleged. At this rate of logging it brings the rotation time down to five to ten years, which is unsustainable. A legacy of ecological deserts where once was forest is all the future generations have to look forward to.

The RFA, FA and IFOA have not been amended over the years. There has also been no recalculation of sustainable yield over this time. Therefore Forests NSW are in breach of these agreements and are contrary to the principles of ESFM.

If the objects of the Forestry Commission are:

- (a) to conserve and utilise the timber on Crown-timber lands and land owned by the commission or otherwise under its control or management to the best advantage of the State,

- (b) to provide adequate supplies of timber from Crown timber lands and land owned by the commission or otherwise under its control or management for building, commercial, industrial, agricultural, mining and domestic purposes,
- (c) to preserve and improve, in accordance with good forestry practice, the soil resources and water catchment capabilities of Crown-timber lands and land owned by the commission or otherwise under its control or management¹⁵¹

As evidenced the Commission has not only failed to meet its legislated requirements it has failed to meet the objects of the Commission and the Act.

The IFOA provides the mechanism to implement the operational provisions of the Southern Forest Agreement. It contains the Terms of Licences issued by NSW Fisheries and NPWS as well as the EPA's current Environment Protection Licence for the Southern Region. The IFOA also contains **maximum timber volumes allowed to be harvested annually**.¹⁵²

Biodiversity

The numbers of threatened species, threatened populations and ecological communities increased significantly since the RFAs were signed and many threatened and endangered flora and fauna species are at extreme risk from current logging operations. The Reserve system gazetted to date, along with the off-reserve protection measures of the IFOAs, are neither comprehensive, representative, or adequate to meet the needs of threatened species survival. The Scientific Committee's figure for NSW species, populations or ecological communities threatened with extinction in 2009 was 1035, and now in 2011 it is up again to 1074.¹⁵³ This figure, when compared to the 1998 figure of 868 is the most indicative of the RFAs effect on our environment.¹⁵⁴

A recent report by Professor Richard Kingsford, Professor Brendan Mackey and a think tank of thirteen eminent scientists stated that:¹⁵⁵

Loss and degradation of habitat is the largest single threat to land species, including 80 percent of threatened species.¹⁵⁶

As evidenced the greatest threats to Australia's biodiversity are caused by broad-scale land clearing and forestry operations including establishment of plantations and fire management practices, yet these industrial forestry practices continue to remain exempt from legislation.¹⁵⁷

¹⁵¹ The *Forestry Act 1916* (NSW) s8(a)1.

¹⁵² Letter to DOPI from Lisa Corbyn and David Nicholson, 18 April, 2002, signed by Director Waters and Catchments Policy (signed 18/4/02), Assistant Director General (Water & Air), Director General (signed Lisa Corbyn 19/4/02), emphasis added.

¹⁵³ For 2008 figures see <<http://www.threatenedspecies.environment.nsw.gov.au/index.aspx>>.

¹⁵⁴ For 2000 and 2003 figures see <http://www.environment.nsw.gov.au/soe/soe2003/chapter6/chp_6.3.htm#6.3.69>; and for 2006 figures <http://www.environment.nsw.gov.au/soe/soe2006/chapter6/chp_6.3.htm#6.3.71>.

¹⁵⁵ See <<http://www.threatenedspecies.environment.nsw.gov.au/index.aspx>>; two examples illustrate this point: firstly, in relation to the endangered Hasting River Mouse, the conditions contained in the Integrated Forestry Operations Approval for this species have recently been weakened for certain core areas for the Hasting River Mouse at the behest of the Forests NSW to increase access for logging; secondly, in relation to the endangered Spotted-tailed Quoll, Forests NSW were found illegally logging a Spotted-tailed Quoll exclusion zone in Forestland State Forest in Upper and Lower North East NSW; they admitted the fact, but claimed it was a 'mistake'.

¹⁵⁶ Kingsford R T, Watson J E M, Lundquist C J, Venter O, Hughes L, Johnston E L, Therton J A, Gawel M, Keith D A, Mackey B G, Morley C, Possingham H P, Raynor B, Recher H F, and Wilson K A, 'Major Conservation Policy Issues for Biodiversity in Oceania' (p 834-840), Published Online: (2009), <<http://www3.interscience.wiley.com/journal/118487636/home?CRETRY=1&SRETRY=0>>.

¹⁵⁷ See The National Strategy for the Conservation of Australia's Biological Diversity (1996).

The Intergovernmental Agreement 1992 states that:

The parties agree that policy, legislative and administrative frameworks should provide for:

- (iv) consultation with affected individuals, groups and organisations;
- (v) consideration of all significant impacts;
- (vi) mechanisms to resolve conflict and disputes over issues which arise during the process;
- (vii) consideration of any international or national implications.¹⁵⁸

The Expert Panel stressed that the persistence and perpetuation of hollow bearing trees is imperative for the survival of forest fauna.¹⁵⁹ A discussion of the conservation measures in place to maintain these hollow bearing trees highlighted the following points:

Tree mortality is high; the ratio of one recruit tree to one hollow bearing tree is unlikely to maintain the targeted number of hollow bearing trees in Net Harvest Areas in the mid to long term. This is particularly the case in the regrowth zones. Modelling is required to define a more appropriate ratio of recruits to hollow bearing trees.

The rotation time between harvesting events within a compartment requires revision. Current rotation intervals are too short to allow recruitment trees to form hollows. Additionally, hollow bearing trees retained from the previous harvesting event are not permanently marked therefore could be removed in the next rotation.

Guidelines or criteria should be developed for the selection of recruitment and hollow bearing trees. Trees with the potential to develop a broad range of hollow types should be targeted for selection. Suppressed trees should not be selected as recruit trees.

Prescriptions for the retention and recruitment of hollow bearing trees in the NHA should be rewritten to emphasise, not only maintaining these features during a single cutting cycle, but managing them to persist in the landscape.

Specific prescriptions should be developed for hotspots, defined as areas of high species richness. A sliding scale, where incremental increases in species diversity are matched by increases in prescription strength, was suggested.

Observations, from on-ground monitoring ten years later, see little change to the prescriptions; the habitat to recruitment ratio is still one to one; the regrowth zone is weaker, because only the hollow-bearing trees present (up to a maximum of ten per two hectares) are retained - if ten are not present then consequently less recruitment trees are retained; there are no stipulations in any harvest plans to retain previously retained trees and rotation times have shortened. For example compartment 62 of South Brooman State Forest has had 'Timber Stand Improvement' twice and been logged nine times since 1954, which is virtually every six years.¹⁶⁰

There is no available ESFM data on the marking up of retention trees, both habitat and recruitment trees, and consequently many trees that had been retained have now been logged. Indeed currently there is no available data on past history of retention trees and their location thus previously retained trees are constantly available for logging.¹⁶¹

Habitat and recruitment tree selection is getting more parlous by the year. Many suppressed recruitment and very small habitat trees (often with no visible hollows) are always found when auditing logged areas, though strangely the stumps are invariably of the largest size class. The sliding scale idea was put in place in Eden yet the solid data on exact amounts of each habitat class that has been logged since 1999 seems non-existent and the volume of "high" class habitat is not reported on.

¹⁵⁸ *Intergovernmental Agreement 1992* sch 2 (3).

¹⁵⁹ From 'Review of Protective Measures and Protective Measures and Forest Practices - Biodiversity Workshop Southern Region' Ecologically Sustainable Forest Management Group, July 1999, Project No. NA45/ESFM p176-177.

¹⁶⁰ Southern Region – Compartment 62, South Brooman State Forest, Bateman's Bay Management Area, Harvest Plan approved 8/5/09.

¹⁶¹ Gibbons P, Lindenmayer D B, Barry S C, Tanton M T, 'The Effects of Slash Burning on the Mortality and Collapse of Trees Retained on Logged Sites in South-Eastern Australia' (2000) 139 *Forest Ecology and Management* 51.

Forests NSW have been informed on the extent of threatened species in their region yet could only find fifteen percent of these species in the Eden region and thirteen percent in the Lower North East in the pre-harvest fauna surveys.¹⁶²

To obtain data for surveys Forests NSW officers conduct 'nocturnal surveys'. SFOs have often been observed shining their torch on the ground.

A case in point is three years prior to logging Compartment 3046 Forests NSW conducted a nocturnal call playback and spotlight survey and South East Forest Rescue observed the following breaches and inadequacies during this survey.

8.8.5 Nocturnal Call Playback

Nocturnal call playback must target the following species: Masked Owl, Sooty Owl, Barking Owl, Powerful Owl, Squirrel Glider and Yellow-bellied Glider. Nocturnal call playback surveys must be conducted as follows:

c) At each call playback site, an initial listening period of 10 minutes should be undertaken, then each target species call must be played for five minutes followed by at least a two minute listening period. After the last call at least 10 minutes must be spent listening. Calls must be played from a good quality portable tape cassette or CD player and amplified through a nine volt megaphone, or equivalent or better.¹⁶³

We met the SFOs at 6.30pm on the Tilba-Punkalla Road and after introductions drove a few hundred metres to the call playback site. There were to be calls from the following species: Koala, Masked Owl, Sooty Owl, Barking Owl, Powerful Owl and Yellow-bellied Glider. The time required for this at seven minutes per species (five minute playback and two minute listen) is forty two minutes. On top of this is the initial ten minute listening period and a final ten minute listening period. This makes the total time for the playback survey to be sixty two minutes. The time was 6.45 when the equipment was set up and SEFR were given instructions on what to do. It was 7.30pm when the parties got back into the cars to drive to the spotlight survey area.

The total time for the call playback was forty five minutes, which is in breach of the above condition.

Also of concern is the position and timing of the call playback. The Tilba-Punkalla Road is a back road to Narooma and the access to many properties. A motorbike drove along the road about ten minutes before the start of the survey and a car came past during the second call. To do this survey at this time, at that position, with this level of disturbance seems that the survey was set up to fail from the start. This also needs investigation as it is not in the spirit of the IFOA.

The sound from the amplification gear was very distorted and several of the calls were not representative of the species in question, whether that was from the bad sound quality or bad taping of the call is unclear.

These breaches undermine the, albeit limited, scope for protection of threatened species by the IFOA.¹⁶⁴ This survey stood as the data on threatened species for the Bodalla SF compartment 3046 logging operations three years later.

The lack of care for threatened and endangered species is nowhere more apparent than in the ESFM report which states:

Any change to the number of species recorded on the estate are likely to reflect research and survey effort rather than

¹⁶² NSW Government 2006 ESFM 'Criteria and Indicators monitoring Report- 2001/2002: Upper North East, Lower North East and Eden Regions' A Supplementary Report to the NSW Forest Agreements Implementation Report, Forestry and Rural industry Policy, NSW Department of Natural Resources, Parramatta, p25.

¹⁶³ Southern Region Integrated Forestry Operations Approval, cl 8.8.5.

¹⁶⁴ Letter from SEFR to Doug Mills NPWS Southern Directorate, Threatened Species Unit, 23/8/04.

true species richness of forest areas.¹⁶⁵

Further scientific judgment on surveying runs thus:

Unless the probability of detecting a species when it is present is equal to 1, false negative observation errors will occur in species surveys. The probability of detecting the presence of the case study species in any single standard survey based on spot-lighting and call elicitation has been found to be very low (Pr[detection/presence] ~ 0.12–0.45); making the reliability of absence data a potentially serious form of uncertainty in our case study. Recent studies have demonstrated the negative impact that false-negative observation error may have on species habitat analyses, meta-population models and monitoring studies.¹⁶⁶

Scientists advocate an approach based on maintaining ecosystem structure and function, and therefore ultimately protecting more species.¹⁶⁷ Protecting key functional species and diversity within functional groups is a key way to do this thereby enhancing ecosystem resilience, so that they are able to maintain their functions and processes. It is not enough to merely record species, the impact of the logging must be recorded.

The authors note with great concern that slow growing species such as *Macrozamia communis* (Burrawangs), *Dicksonia youngiae*, and *D antarctica* (Soft Tree Ferns), *Cyathea australis* and *C cunninghamii* (Rough Tree fern) and *Xanthorrhoea spp* (Grass Trees) are particularly vulnerable in logging areas. Most of these plants have been alive long before white settlement, they grow up to one cm of trunk per year, and when young will take up to ten years to start forming a trunk. Research shows that only between two to thirteen percent of tree ferns regenerate after logging and never regrow on snig tracks or log dumps. Tree ferns, which play a vital role in maintaining the moisture of the forest floor and providing protection for the growth of other forest plants, are often casualties of logging.¹⁶⁸ There are no prescriptions for these flora even though they are protected under NSW legislation.

IFOA and PNF Prescriptions for Species

In the Southern and Eden regions there are around 25 compartments active in State forest and 46 Property Vegetation Plans which mainly feed the pulp market. All of these contain threatened and/or endangered species.¹⁶⁹ Once a species has been listed by the Scientific Committee it triggers numerous obligations for habitat conservation.¹⁷⁰ Thousands of dollars have been spent both State and Federally on each species recovery plan and threat abatement plan, yet despite this, and there being a plethora of legislation and regulations to conserve biodiversity, native forestry operations are exempt.

Scientists advocate an approach to conservation based on maintaining ecosystem structure and function, and

¹⁶⁵ NSW Government 2006, ESFM 'Criteria and Indicators monitoring Report- 2001/2002: Upper North East, Lower North East and Eden Regions' A Supplementary Report to the NSW Forest Agreements Implementation Report, Forestry and Rural industry Policy, NSW Department of Natural Resources, Parramatta, p37.

¹⁶⁶ Wintle B A, Elith J, and Potts J M, 'Fauna Habitat Modelling and Mapping: A Review and Case Study in the Lower Hunter Central Coast Region of NSW' (2005) 30 *Australian Ecology* 719.

¹⁶⁷ McIntyre S, Barrett G, Kitching R, and Recher H, 'Species Triage – Seeing Beyond Wounded Rhinos' (1992) 6 *Conservation Biology* 4 p604; see also Walker B, 'Conserving Biodiversity Through Ecosystem Resilience' (1995) 9 *Conservation Biology* 4, p747.

¹⁶⁸ Unwin G L, and Hunt M A, 'Conservation and Management of Soft Tree Fern *Dicksonia Antarctica* in Relation to Commercial Forestry and Horticulture, *Pteridology in Perspective*, Camus J M, Gibby M and Johns R J [eds], (1996) pp 125-137, Royal Botanic Gardens, Kew : London.

¹⁶⁹ There are 91 forest dependent species of fauna in the region, National Parks and Wildlife, Atlas of NSW Wildlife, <<http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlasSpecies.jsp>>, viewed 19 July 2010.

¹⁷⁰ See the *Environment Planning and Assessment Act 1979* (NSW); the *Protection of Environment Operations Act 1997* (NSW); the *Threatened Species and Conservation Act 1995* (NSW); the *Environment Protection Biodiversity and Conservation Act 1999* (Cth); *National Parks and Wildlife Act 1974* (NSW).

therefore ultimately protecting more species.¹⁷¹ Protecting species and diversity enhances ecosystem resilience therefore species are able to maintain their functions and processes.

The object of IFOAs are stated at s25 of the FNPE Act as being ‘for the protection of the environment and for threatened species conservation’.¹⁷²

The Scientific Committee’s main recommendations to protect hollow dependant species were to establish appropriate recruitment tree ratios as part of the Private Native Forestry Code under the *Native Vegetation Act 2003* (NSW), and adopt appropriate policies for recruitment tree ratios with a stipulated minimum retention density in areas of State forestry operations.¹⁷³

Both of these strategies for different land tenures are given High priority, both of these strategies have not been implemented. Given that generally eucalypts form hollows after about 120 years of age a sustainable rotation age would be one that allows forest values to regenerate.¹⁷⁴ Reducing forests to a flat rate of 5 or less hollow bearing trees per hectare from an optimum of 27-37 hollow bearing trees per hectare puts at risk expectations that future generations will see fauna such as the Greater Glider in the wild.

Prescriptions for threatened species and habitat conservation in IFOAs and the PNF code are grossly inadequate. Furthermore, neither a FOP or Harvest Plan can be classed as a species impact statement.¹⁷⁵ It is perfunctory to merely record species. Impacts of logging and post-logging burning on species and their habitat must also be recorded and monitored to ensure due process in achieving conservation objectives.

A comparison with a species recovery plan and threat abatement plan for species and prescriptions contained within the PNF Code and the IFOA TSLs highlights the inadequacy of these prescriptions. The results of this practice is reflected in numbers of threatened and endangered species rising in line with the increase in forests logged.¹⁷⁶

The regulators misconception of implementation of TSLs prescriptions has ensured that many breaches of licence conditions which have destroyed habitat have gone unpunished. Furthermore Forests NSW have recommended to OEH that many prescriptions be nullified.¹⁷⁷

Further the PNF Unit in OEH have shown themselves to be completely incapable of managing and implementing the PNF Code and operations, approving more than 70% of old-growth high conservation value native forest for logging, according to information obtained through Parliament that is 7,898 hectares over a 3

¹⁷¹ McIntyre S, Barrett G, Kitching R, and Recher H, ‘Species Triage – Seeing Beyond Wounded Rhinos’ (1992) 6 *Conservation Biology* 4 p604-606; Walker B, ‘Conserving Biodiversity Through Ecosystem Resilience’ (1995) 9 *Conservation Biology* 4, p747.

¹⁷² *Forestry and National Park Estate Act 1998* (NSW) s25.

¹⁷³ *Threatened Species Conservation Act 1995* (NSW) Sch 3 s8, *Loss of Hollow Bearing Trees Key Threatening Process*; <<http://www.environment.nsw.gov.au/determinations/LossOfHollowTreesKtp.htm>>; clicking on ‘Threat Abatement Strategies’ will take you to ‘Review and Amend or Adopt Existing Legislation or Policies’, clicking on this will take you to ‘All Priority Actions for this KTP’, clicking on that will take you back to ‘All Priority Actions for this KTP’.

¹⁷⁴ Crane M J, Montague-Drake R M, Cunningham R B, and Lindenmayer D B, ‘The Characteristics of Den Trees Used by the Squirrel Glider (*Petaurus norfolcensis*) in Temperate Australian Woodlands’ (2008) 35 *Wildlife Research* 663.

¹⁷⁵ ‘I am obliged to note that, in my opinion, the Eden FIS is an appallingly inadequate document, even by Commission standards. It suggests they do not take the Act (and the conservation of endangered fauna) very seriously’ *South East Forests Conservation Council Inc v Director-General National Parks and Wildlife and State Forests of NSW* [1993] NSWLEC 194, Deputy Director (Policy and Wildlife) Mr David Papps.

¹⁷⁶ For 2008 figures see <<http://www.threatenedspecies.environment.nsw.gov.au/index.aspx>>; for 2000 and 2003 figures see <http://www.environment.nsw.gov.au/soe/soe2003/chapter6/chp_6.3.htm#6.3.69> and for 2006 figures see <http://www.environment.nsw.gov.au/soe/soe2006/chapter6/chp_6.3.htm#6.3.71>.

¹⁷⁷ Original Eden TSL cl 6.6 Southern Brown Bandicoot *Isodon obesulus* a) An exclusion zone of at least 200 hectares must be implemented around each record of the species; amended Eden TSL now has very small buffer zone as evidenced by Nadgee SF Cpt 62 harvest plan; the SBB is an EPBCA endangered species.

year period.

Fragmentation

There is nothing positive to report. Fragmentation has increased but conveniently no data exists to show this. Scientifically, habitat corridors need to be one hundred to two hundred and fifty metres wide to be beneficial, the current forty to eighty metres is simply not adequate.

Fauna experts consulted during the Response to Disturbance Project have recommended that corridors and riparian buffers be expanded to 200 m for yellow-bellied gliders, 1 km along major rivers for owls, 240 m for fishing bats and golden tipped bats, and 1km (with low-intensity logging) between catchments for stuttering frogs.¹⁷⁸

Roads bring more people into an area which results in fragmentation of the landscape, but they also have much broader and wide ranging effects. At the landscape scale, roads disrupt ecosystem processes and, at both a fine and coarse scale, cause a loss of biodiversity.¹⁷⁹

Fragmentation of the landscape and the consequent habitat loss is the major threat to biodiversity.¹⁸⁰ It has been suggested that fragmentation within a forest will force the inhabitants of the logged forest patch into the surrounding forest, thereby causing dysfunctional behaviour due to higher than normal densities.¹⁸¹ This phenomenon is reduced when the remaining forest is large and intact.

Listing Forest-Dwelling Species

Forests NSW state that the reporting of forest dependent species depends on the reporting of SFOs prior to logging. This does not instill confidence. Forests NSW give no data on this from the Southern Region at all to the Independent Assessor. The data appeared to be CRA data which is blatantly untrue. There are Greater Glider and Squirrel Glider habitats within State forests in the Southern region. To base decisions on this type of erroneous data would be unjustifiable.

Status of Threatened Forest-Dwelling Species

During the review reporting period there was a recognised increase in threatened species, endangered populations, endangered ecological communities, and Key Threatening Processes, which is material evidence on the failure of the RFAs. KTPs such as the removal of dead trees and the loss of hollow-bearing trees occur on a daily basis on the State forest estate, creating an ecological desert with impunity.

Species Extent and Abundance

Current RFA mechanisms are not functioning positively. There has been no action on KTP abatement. For example the Southern Brown Bandicoot, for which the Eden IFOA initially stipulated a two hundred hectare exclusion zone, in Nadgee SF compartment 62, SBBs have been given no exclusion zone (see Operational Plan approved 30/06/09). There has been an amendment at Forests NSW request of the SBBs prescriptions on the strength of alleged SBB monitoring surveys. The authors can find no documentation to substantiate the claim that the monitoring plans mentioned by Forests NSW exist. There is a 2007 species management plan but no

¹⁷⁸ From CRA Report 'Draft Assessment of Forest Management Practices for the Eden RFA' CSIRO Forestry and Forestry Products and Andrew Smith, Sestscan and Pat O'Shaughnessy and Associates, (1997), ne27esfm, ISBN 0-642-28398-2 p48.

¹⁷⁹ Forman R T T, and Alexander L E, 'Roads and Their Major Ecological Effects' (1998) 29 *Annual Review of Ecology and Systematics* 207.

¹⁸⁰ Benson J, 'Past, Present and Future: the Role of Scientific Knowledge in Nature Conservation' (1993) *National Parks Journal* February, p17; see also Wilcove D S, Rothstein D, Dubow J, Phillips A, and Losos E, 'Quantifying Threats to Imperiled Species in the United States' (1998) 48 *BioScience* 607.

¹⁸¹ Hagan J M, Vander Haegen M, and McKinley P S, 'The Early Development of Forest Fragmentation Effects on Birds' (1996) 10 *Conservation Biology* p188.

further monitoring reports.

The IFOA is a flawed document and the conditions it holds are therefore flawed, it is worded so that carte blanche non-compliance can be explained away as an accident, and is seriously undermining threatened species extent and abundance.

Status	2000	2003	2006
Extinct	77	79	75
Endangered	379	396	441
Vulnerable	367	386	392
Populations	17	28	36

To merely list a threatened species - to 'take note' of a species and its location - is not considering the impacts of logging on that species or its habitat, nor is that in any way affording protection to these species. These species have been legislated into extinction and Forests NSW, the regulatory agency OEH, the State governments and the Commonwealth are all liable under domestic and international obligations.

Climate change will dramatically increase other threats to species in the region, through increased spread of invasive species, increased fire frequency and severity, increased spread of forest dieback, and reduced stream flows. The cumulative impact of all these threats compounded by industrial logging operations operating under an exemption to the EPBC Act and the RFAs, have resulted in a major impact on threatened species.

Residue versus Habitat Protection

A case study of the conditions of the Threatened Species Licence in the Southern Region.

Late in 2001 the pressure was on agency players to finalise prescriptions of the TSL within the context of the heated issue of a Charcoal Factory proposal. The factory was being promised 200,000tpa of residue timber feedstock by Forests NSW. When the RFA process began, this proposal was not in the mix. Luckily, the factory never received approval, but the ramifications of the threat continue to this day.

It became an over-riding concern for the National Parks and Wildlife Service ("NPWS") that during the negotiations for the TSL the removal of up to 200,000 tonnes a year of residual timber was not considered to be part of Forests NSW operations in the South Coast sub-region.¹⁸²

A further concern was that the residual timber supply proposal forecasted the use of mechanical harvesting and grapple snagging. These techniques had not previously been used on the South Coast and therefore the impacts, negative or beneficial, of these types of operations in the forests of the region were not fully understood. Consequently, it was difficult for the NPWS to fully anticipate the implications of the residual timber supply proposal for the threatened species of the region. To ameliorate these concerns, NPWS proposed to include a review in the TSL to enable comprehensive assessment of the on-ground implications of the operations and for consideration of these implications in the TSL conditions.

2.1 k) SForests NSW must assist the NPWS in a review of the on-ground implications of the removal of residual timber and mechanical harvesting / grapple snagging techniques as they relate to the management of threatened species. This review must commence within 18 months of the start of supply to residual timbers to the charcoal plant.

¹⁸² National Parks and Wildlife Service letter to Forests NSW, 14/10/2001.

Forests NSW considered this reasonable and agreed to the wording of this proposal. However, the condition never made it into the final TSL document. Indeed the current prescriptions include such conditions like:

5.4 g 4) Nothing in this condition (being condition 5.4) prevents the use of a harvesting arm of a mechanical harvester to rehabilitate or reinstate ground or soil in Rainforest or an exclusion zone around Warm Temperate Rainforest or Cool Temperate Rainforest in accordance with another term or condition of this approval.

Forest Type By Area:

There seems to be no data for the Southern Region. Updated information regarding changes to the extent of forest type in the CAR is not available. The Forests NSW statement stating the system was established in accordance with the JANIS is erroneous for a number of reasons, mainly due to the lack of willingness by legislators to promote ecology over economy.

Forests NSW has stated:

Changes to the extent of forest type on state forests are reported through data obtained from the forest management zoning (FMZ) system. This zoning is based on the nationally agreed JANIS reserve criteria which give effect to the CAR reserve. The system defines a number of zones and specifies what activities are permissible within each zone. The extent of reservation of different forest vegetation communities is a measure of the degree of protection of biological diversity at the species and ecosystem levels. The modelled forest type extents listed in the RFAs are used as the baseline to measure changes to the extent of forest types. The *State of the Parks 2004* report and ESFM annual reports provide further detail on the extent and management of forest ecosystems *in each region*.

This information is vital for proper assessment, yet it is being left aside in Southern, and is lacking to the extent that the regionally produced ‘harvesting plans’ are not providing any information of how many hectares of each forest type yield association is within the net harvest areas. The information given in the recent Wandera Harvest Plan only gives basic statements such as ‘stands of multi-aged regrowth with patches of maturing stands...forest stands of mixed age’.¹⁸³ This implies that previously undisturbed forest is being logged under this plan. This is in tension with the *National Forest Policy Statement (1992)* and the need to preserve old-growth forest.

The ESFM Monitoring Report for 2001/02 tells us that:

any change to the extent of forest ecosystem types can only be presented separately for each tenure, and cannot accurately identify change to the extent of forest ecosystem types across the whole public forest estate. Forest ecosystem type data are currently derived from different data sets for the national park estate and State forests and therefore cannot be directly compared.

This confounding effect needs to be emended.

Area of Forest Type by Growth Stage:

All observations made to date of forestry operations under the RFAs have shown that logging old-growth is a high priority, indeed it is generally recognised that the Forests NSW achievement of finalising the removal of unprotected old-growth is less than four years away. Information showing the effect on forest type by area and growth stage (under Forests NSW Research Note 17 classification) on the State forest estate is not publicly available. There is a lack of informative data on what type of forest is used as classification and again assert that classification by growth stage is not classifying by forest type.

¹⁸³ See Site Specific Harvesting Plan, Southern Region -Compartment 584, 585, and 586 Wandera State Forest, Batemans Bay Management Area, approved 1/5/08, Forests NSW.

Unfortunately, RFAs have developed and utilised relatively simple forest ecosystem classifications - note that in my professional estimation even classifications with 100-150 types are inadequate to assess Comprehensiveness.¹⁸⁴

Regeneration

The white elephant in the room is the regeneration of native forest after industrial logging. The meaning of Forests NSW statement that there is a hundred percent regeneration target set for harvested native forest is obscure. The research and data that the forest does regrow after industrial logging and burning is inadequate. The Forests NSW publicly available data is cursory to say the least, and even what little forest was surveyed did not equal 'one hundred percent regenerated'.

From the period 2001 to 2006 the number of surveys for the Southern region was twenty one covering a total of 2,176 hectares.¹⁸⁵ There is no information provided by Forests NSW or the RFA regime on the effectiveness of regeneration.

The vascular floristics about a decade after harvesting operations differed significantly from the floristics of similarly aged forest regenerating after wildfire. In clear-felled areas, weed and sedge species occurred more frequently than on wildfire sites and *Acacia dealbata* was much more abundant, whereas resprouting shrubs, tree ferns and most ground-fern species were more abundant in wildfire regeneration sites. The low survival rate of resprouting species reported in an increasing number of studies suggests that soil disturbance is likely to be a major contributor to differences.¹⁸⁶

There should be full disclosure of the actual results of this monitoring.

Forests NSW do not 'replant' native forest. Once logged and burned the forests may take decades to regenerate or they might not regrow at all and they are altered inexorably.¹⁸⁷ If Forests NSW ever did replant, they'd then fail again as replanting is not sufficient to offset the biodiversity losses created by clearing because of lags in species becoming established and sustained differences in species composition.

The one hundred percent regeneration rate for Southern in 2005-06 stated in the Draft Report is not only erroneous but highly incredible given that there were no regeneration surveys undertaken in the Tumut subregion in that period. There is no data given showing how much area was assessed, except:

In 2005-06 there were no regeneration surveys in the UNE or Eden regions.¹⁸⁸

Information from Forests NSW concerning Southern Region regeneration assessments for the period 2001-02 to 2005-06 stated that a total of 2,019 hectares had been surveyed in the southern sub-region, and only 167 hectares in the Tumut sub-region.¹⁸⁹ The analysis reports that 'are available' on this clause 52 data are actually unavailable. The assessment report completed by 31 December 2006 is similarly 'unavailable'. There is a lack of comprehensive information available showing the full extent of regeneration surveying efforts and the results thereof.

Comparisons to other reporting is incongruous in relation to effective regeneration. For example, in the State of

¹⁸⁴ Mackey B, 'Regional Forest Agreements – Business as Usual in the Southern Region?' (1999) 43 *National Parks Journal* 6.

¹⁸⁵ Southern IFOA Clause 52 Assessment of Regeneration Report 20/6/07, Forests NSW Batemans Bay; this 'report' is a thin five line by five column table.

¹⁸⁶ Ough K, 'Regeneration of Wet Forest Flora a Decade after Clear-felling or Wildfire - Is There a Difference?' 49 *Australian Journal of Botany* 5, p645, <<http://www.publish.csiro.au/paper/BT99053.htm>>.

¹⁸⁷ Forests NSW burned 23,000 hectares in the South East alone last year, Forests NSW Annual Report 2007.

¹⁸⁸ A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements, (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Sydney, p129.

¹⁸⁹ 'Southern IFOA Clause 52 Assessment of Regeneration', Forests NSW Batemans Bay Office, 20/6/07.

the Forests Report 2008 (“SOFR”) at Table 37 on page 67 it is noted that in 2005-06 NSW had 3,870 hectares effectively regenerated; meanwhile in the Draft Report on Implementation on page 129 there were no regeneration surveys in Upper North East and Eden Regions; noted above Tumut also had zero surveys for the year; which means that 3,438 hectares must have been assessed solely in the Lower North East region that year. This seems like an incredible focus of regeneration surveying for the year 2005-06.

Gnupa ‘Regenerating’



Ecosystem Health and Vitality

The biggest and most common ‘negative agents’ to the health and vitality of ecosystems are logging contractors and Forests NSW. The ecosystem health and vitality of a native forest becomes severely affected once logged and burnt.

Commercially logged forests have substantially lower carbon stocks and reduced biodiversity than intact natural forests, and studies have shown carbon stocks to be 40 to 60 per cent lower depending on the intensity of logging.¹⁹⁰

The data shows ongoing areas treated and expenditure on feral animals, but does not indicate what quantities are present, or what quantities have been exterminated, and therefore does not show how effective this program is.

Forests NSW stated at Table 5.18 on page 132 of the Draft Report that in 2004-05 in the Southern Region 877,734 hectares of Forests NSW forest estate were treated for introduced predators, but earlier on page 101 it states at Table 5.1 that in the same year in the same region there were only 205,545 hectares of forest estate managed by Forests NSW.

There is a lack of independent scientific assessment examining the effectiveness of the RFA feral animal and weeds program. An example of weeds control in the Southern region can be found in compartment 516 of Buckenbowra State Forest, an area of unprotected wilderness west of Batemans Bay, where logging machinery introduced Scotch Thistle to the recently logged environment. The famous ring of lantana around Gulaga Mountain in State forest compartments has not lessened in extent yet \$575,965 was spent by Forests NSW on weed management during the period 2002-2006.

Hundreds of thousands of dollars was spent in the Southern region but again there is no data on what outcomes or effects this spending had on noxious weeds. We note the whole of this criterion manages to evade mention of climate change, whereas it was stated in the SOFR 2008 that climate change will have a profound effect on

¹⁹⁰ Mackey B, Keith H, Lindenmayer D, Berry S, ‘Green Carbon: The Role of Natural Forests in Carbon Storage, Part 1, ‘A Green Carbon Account of Australia’s South-Eastern Eucalypt Forest, and Policy Implications’ ANU E Press, (2008), Online version available at: <http://epress.anu.edu.au/green_carbon_citation.html>.

forests.

Post Fire Recovery and Research

The roll out of RFAs throughout the State's forested zones was the first step to increasing fire risk for NSW.

One of the major planning constraints associated with thinning is *the higher level of fuel present after the operations*. It is not considered feasible in Tasmania to carry out fuel reduction burns in thinned coupes because of the high fuel loads and the sensitivity of the retained trees to fire. The location of thinned coupes amongst conventionally logged coupes is problematic, as it is not recommended that any regeneration burn take place within two kilometres of areas with high levels of flash fuel within two years of harvest (Cheney 1988).

And:

Tree crowns (heads), bark, and other harvest residue make up the fuel load. The climate on the floor of the forest is altered by thinning, with higher wind speeds and temperature, lower humidity, and lower moisture content in the fuel itself. Understorey vegetation characteristics change because of these changes to the microclimate, especially increased light. Bracken ferns and cutting grass may grow vigorously, each having a far higher flammability than the replaced woody species (Cheney and Gould 1991).

Strangely this is from the Forestry Commissions own data but is only now coming to light and certainly was not mentioned in 1998, when the RFAs were signed.

Native forests can take hundreds of years to recover from Forests NSW mismanaged and very hot 'post harvest burns'.

Soil and Water Resources

"This criterion is concerned with the most fundamental resources of a forest environment: soil and water."¹⁹¹

As reported, in the SOFR 2008, NSW has about 200,000 hectares managed specifically for water supply. This equates to 0.24% of the land area of the state, or 0.76% of the NSW native forest area¹⁹².

Many studies have shown that microbial biomass decreases following forest harvesting, and that these changes occurred before measurable changes in soil organic matter quantity were found. The decline of microbial Carbon and Nitrogen following tree removal ranged between twenty seven percent and sixty four percent. When bacterial and fungal biomass were determined separately, it was found that fungal biomass declined more sharply than bacteria. The often rapid decrease in fungal biomass may be explained by a reduction in ectomycorrhizal fungi, which decline sharply once the root system of cut stems can no longer support them.

Conventional practices in intensive forest use such as short rotations, use of heavy machinery, harrowing and high intensity burning of slash can be viewed as detrimental to soil health. After burning, the organic content of forest soils can be transformed into ash and mineralised nutrients. This may result in an intense pulse of nutrients that can change the soil pH and can easily be leached, leaving a nutrient and humus poor soil, with a significantly different structure from the original condition.¹⁹³

Research by the CSIRO states:

Timber harvesting and its associated activities cause drastic changes in soil physical structures and hydraulic properties. In situ changes of surface soil hydraulic properties using a newly developed disc permeameter are assessed. Five forest sites, two radiata pine forests near Oberon and three native eucalypt forests near Eden NSW,

¹⁹¹ *Australia's State of the Forests Report 2008*, Montreal Process Implementation Group for Australia (2008), Bureau of Rural Sciences, Canberra, p87.

¹⁹² Ibid 7, 89.

¹⁹³ Green D, and McQuillan P, 'The Soil Mites of Warra and their Recovery Under Modern Forestry Practices' (2004) <http://www.warra.com/warra/research_projects/research_WRA103.html>.

were investigated for the impact of timber harvesting on soil structure and hydraulic properties. On most sites, there was an increase in soil bulk density and a declining trend in sorptivity and hydraulic conductivity associated with logging. Changes in hydraulic properties suggest that the logging and associated activities had resulted in soil compaction, attributable mainly to redistribution of soil pore sizes and with a decrease mostly in pores greater than 3mm in diameter. This reduction in macroporosity suggests a reduction in aeration and a change of water retention characteristics.¹⁹⁴

Usually the majority of forestry operation non-compliances reported are on EPL breaches and how they relate to soil and water protection practices. One CRA report stated that all impacts of logging were significant at only buffer widths of less than 30 metres.¹⁹⁵

Currently all unmapped, first and second order streams have less than thirty metre buffers, which suggests that current logging adjacent to these streams is having a significant impact. This report went on to say that the methodology used for the EPLs is not scientifically defensible. Even more recent research found in the SOFR 2008 suggests that twenty metre buffers need to be retained to generally reduce turbidity levels.¹⁹⁶

Forestry machinery compacts soil, preventing absorption of rainwater. When it rains the run-off carries a significant amount of sediment into streams. Movement of this machinery and other logging-related vehicles along forest roads raises a large volume of dust (30 -90 tonnes per year for every hectare of unsealed road, compared to 0.3 tonnes for unsealed roads in undisturbed forests). Erosion is the largest contributor to turbid water in Australia.

A study of the Eurobodalla catchments in NSW showed that approximately 905 tonnes of sediment were transported through the river in one four-day storm. This is compared with thirteen tonnes for the previous six-month period.¹⁹⁷ Significant sediment loads have also been identified as coming from the 50,000 kilometres of unsealed roads within state forests and reserves.¹⁹⁸ Suspended sediment loads in inland waters caused by gully erosion and degraded flow paths, can have significant impacts such as siltation of river channels, infilling of wetlands, reduced light penetration inhibiting photosynthesis, and loss of habitat and spawning sites for gravel-bed dependent fish.¹⁹⁹

Water costs have soared since the CRA analysis was done. The price per kilolitre in the Eurobodalla in 2000 was \$0.80.²⁰⁰ It is currently \$2.40 per kilolitre and \$3.60 for consumption of over one hundred fifty kilolitres. When forests are logged, the amount of water flowing in creeks and rivers, after a short initial increase, can decrease by up to fifty percent. It may even cease to flow in dry periods. Regrowth needs much more water to grow than mature trees.

¹⁹⁴ Hung J (CSIRO, Division of Soils); Lacey ST (State Forests of New South Wales); Ryan PJ (CSIRO, Division of Forestry) 'Impact of Forest Harvesting on the Hydraulic Properties of Surface Soil' (1996) 161(2) *Soil Science* 79-86.

¹⁹⁵ From CRA report 'Water Quality and Quantity for the UNE, LNE and Southern RFA Regions' (1998) Project NA61/ESFM, 54.

¹⁹⁶ See the State of the Forests Report 2008 109.

¹⁹⁷ Drewry J J, Newham L T H, Greene R S B, Jakeman A J and Croke B F W, 'An Approach to Assess and Manage Nutrient Loads in Coastal Catchments of the Eurobodalla Region, NSW, Australia' (2005), MODSIM 2005 International Congress on Modelling and Simulation, pp 2658-2664.

¹⁹⁸ Drewry J J, Newham L T H, and Greene R S B, 'An Index-Based Modelling Approach to Evaluate Nutrient Loss Risk at Catchment-Scales' (2008) Integrated Catchment Assessment and Management Centre, The Australian National University, Canberra <http://www.mssanz.org.au/modsim07/papers/43_s47/AnIndex-Baseds47_Drewry_.pdf>.

¹⁹⁹ See Monitoring and Evaluation Trials, New South Wales Region, Southern Catchment, Phase 1 Report, (2004) National Land & Water Resources Audit, <<http://lwa.gov.au/files/products/national-land-and-water-resources-audit/er050846/er050846.pdf>>; and also NSW Diffuse Source Water Strategy, DECC 2009/085, <<http://www.environment.nsw.gov.au/resources/water/09085dswp.pdf>>.

²⁰⁰ See the Water Use and Allocation in the Eurobodalla <<http://www.esc.nsw.gov.au/site/plans/Documents/Archive/1999/SOE/SOERd/TheReport/Eurobodalla/IndicatorResults/WaterDemandManagement.htm>>.

In 1999 it was estimated that the cost of water lost by the logging of 2000 hectares of native forests in the Eurobodalla catchments in one year to be over ten million dollars. This amount is compounded each year that these catchment forests continue to be logged.²⁰¹ Therefore there is a need to independently reassess the economic costs of the RFA as it applies to water quantity and security.

The severity of the prolonged drought and inclement climate change conditions is readily portrayed by the flow recordings of the three rivers, the Tuross, Deua, and Buckenboursa, in the Eurobodalla Shire. The Shire's water supply depends upon these rivers. Logging in these catchments is continuing to compound the negative effects of this form of land use on catchment hydrology. Since the last minor flood peak in February 2008 these rivers have been extremely low.

Socio-Economic Benefits

The task was made difficult by the limited time frame and the need to commence and undertake studies without knowledge of the options that would arise from the negotiation process.²⁰²

The only economic benefits of logging is to the chipmill and logging contractors. Forests NSW is currently running sixteen million dollars in the red.

I can only see this loss increasing as Forests NSW continues to look for new sources of hardwood timber and the costs of harvest and haulage increase. This will be very difficult to manage.²⁰³

Forests NSW allege that:

Estimated figures provided by Forests NSW for the total direct and indirect employment in the forest sector across all regions totalled 6,676 equivalent full-time (EFT) positions for 2005–06. The largest employment sector is primary processing, which makes up 67% of its total employment across all NSW FA regions. Harvesting and haulage accounts for 16% and growing and managing of forests accounts for 8% of employment.

These figure do not delineate between native and plantation sectors. Further detailed reporting should be done to allow the public to understand the true socio-economic 'benefits' of native forest logging.

It should be obvious for Forests NSW to recognise that there is no socio-economic benefit in logging native forests when consideration of Forests NSW employee numbers show a drop of 2,183 employees over the period 2002 to 2008.²⁰⁴ The winners are businesses such as Boral, SEFE and Blue Ridge Hardwoods whose profit driven shareholder reward systems need to consume the environment to perpetuate, the losers are the community who have had their forests plundered at a loss. Forests NSW state it will maximise its contribution to the social well being of the communities, yet in Forests NSW Annual reports its shown that Forests NSW did not make any grants to non-Government community organisations during 2005-06, 2006-07 and again in 2007-08.²⁰⁵ There is the expectation that the text will remain unchanged in the 2010 Annual Report due at the end of the financial year, though still unavailable.

The present system of RFA forest management is uneconomical as the supposed income is generated by the

²⁰¹ Atech Group, 'Southern Forests Catchment Values and Threats' (1999) <<http://www.atechgroup.com.au>>.

²⁰² Draft Interim Assessment report, 'Socio-economic Assessment Framework' <http://www.racac.nsw.gov.au/reports/iap/chapter2/ch2_700.htm Ch 2.7>.

²⁰³ The Auditor-General, Mr Peter Achterstraat, Media Release, Auditor-General's Report, Sustaining Native Forest Operations, 29/4/2009, <<http://www.audit.nsw.gov.au>>.

²⁰⁴ The NSW Forest Agreements Implementation Report (2001/2002) published in 2006, p69 and Forests NSW Annual report 2007-08, p88.

²⁰⁵ Forests NSW Annual Reports; 2005-06 p59, 2006-07 p69, 2007-08 p81.

depletion of capital assets.

Jobs

The *total* employment in the forestry sector in NSW in 2006 was:²⁰⁶

841311	Forestry worker	404
841312	Logging Assistant	120
721112	Logging Plant Operator	227
841313	Tree Faller	203
234113	Foresters	358
Total:		1312

The total figures for forestry workers in Australian Bureau of Statistics data is 1,695. The total for Forests NSW staff was 1,069, which is broken down into 538 managerial and 531 other.²⁰⁷ These figures are not broken down into plantation versus native forest, they are aggregated. This employment has now dropped.

South Coast employment figures

Place of employment	employees
Blue Ridge	55*
Boral Nowra	55*
Boral Narooma	20*
South East Fibre Exports	40*
Eden logging workers	24
Southern logging workers	32
Log truck drivers	20(approx.)
Total	246

*These figures were pers com by companies to authors. 77 truck drivers in total for East Gippsland and NSW.

Legislative Frameworks

To tell deliberate lies while genuinely believing in them, to forget any fact that has become inconvenient, and then, when it becomes necessary again, to draw it back from oblivion for just so long as it is needed, to deny the existence of objective reality and all the while to take account of the reality which one denies—all this is indispensably necessary.²⁰⁸

Foresters have eagerly endorsed part of Principle 1 of the UN *Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests* which states:

(a) States have, in accordance with the Charter of the United Nations and the principles of international law, *the sovereign right to exploit their own resources* pursuant to their own environmental policies...

But the Principle goes on to state:

And have responsibility to ensure that activities within their jurisdiction or control do not cause damage to the

²⁰⁶ Australian Bureau of Statistics, Cat. No. 2068.0 - 2006 Census Tables, '2006 Census of Population and Housing NSW' Occupation by Sex-Alternative View; occupation was coded to the 2006 ANZS Classification of Occupations, this has replaced the 1996 Australian Standard Classification of Occupations(ASCO) 2nd Edition, <<http://www.censusdata.abs.gov.au>>.

²⁰⁷ Forests NSW Annual report 2007-08.

²⁰⁸ Orwell G, *Nineteen Eighty-Four*, (1949) Penguin Books, England, (reprint 1980), p171.

environment of other States or of areas beyond the limits of national jurisdiction.²⁰⁹

The strict statutory obligations of the *Environment Planning and Assessment Act 1979* (NSW) (“EPA Act”), the *Protection of Environment Operations Act 1997* (NSW) (“POEO Act”), the *Threatened Species and Conservation Act 1995* (NSW) (“TSC Act”), *National Parks and Wildlife Act 1974* (NSW) (“NPW Act 1974”) and the *Environment Protection Biodiversity and Conservation Act 1999* (Cth) (“EPBC Act”) are such that, arguably, anyone contemplating illegal activities against native flora, fauna or the environment does so at their peril.²¹⁰ Not so the Forestry Commission, trading as Forests NSW, for areas covered under the IFOAs and RFAs.

Forestry operations are bound by the *Protection of the Environment Operations Act 1997* and are licensed under Section 55. Under the IFOA these licences provide that State Forests must comply with Section 120 of the POEO Act:

*Except as may be expressly provided in any condition of this licence.*²¹¹

Under clause 29(3A) and (3B) Forests NSW can turn the EPLs on and off depending on whether they want to log unmapped drainage lines with immunity.

There are several international agreements and domestic policy documents that are legally and morally binding on the Commonwealth.

The Rio Declaration, *Convention on Biological Diversity* 1992 at Article 8(c) states:

Each Contracting Party shall, as far as possible and as appropriate:

Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas with a view to ensuring their conservation and sustainable use;

and

(d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings.²¹²

Commonwealth, State and Local governments are governed by the obligations of the *Intergovernmental Agreement on the Environment* 1992 which states:²¹³

The parties consider that the adoption of sound environmental practices and procedures, as a basis for ecologically sustainable development, will benefit both the Australian people and environment, and the international community and environment. This requires the effective integration of economic and environmental considerations in decision-making processes, in order to improve community well-being and to benefit future generations.²¹⁴

The Montreal Process at Criteria 7 states:²¹⁵

Legal, institutional and policy framework for forest conservation and sustainable management

²⁰⁹ *Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests* (Rio de Janeiro, 3-14 June 1992) A/CONF.151/26 (Vol. III) emphasis added.

²¹⁰ Macintosh A, ‘Why the Environment Protection and Biodiversity Conservation Act’s Referral, Assessment and Approval Process is Failing to Achieve its Environmental Objectives’ (2004) 21 *Environment and Planning Law Journal* 288.

²¹¹ Southern Region IFOA at Appendix A 5 (emphasis added).

²¹² The Rio Declaration, *Convention on Biological Diversity*, Rio de Janeiro, 5 June 1992, Entry into force for Australia: 29 December 1993, Australian Treaty Series 1993 No 32.

²¹³ *National Environment Protection Council (New South Wales) Act 1995* (NSW), Schedule 1, *InterGovernmental Agreement on the Environment* 1992.

²¹⁴ For an in-depth analysis on inter-generational equity see Dr Laura Horn, ‘Climate Change Litigation Actions for Future Generations’ (2008) 25 *Environment and Planning Law Journal* 115.

²¹⁵ Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests ‘*The Montréal Process*’ Third Edition, December 2007, <www.rinya.maff.go.jp/mpci/>.

7.1 Extent to which the legal framework (laws, regulations, guidelines) supports the conservation and sustainable management of forests, including the extent to which it:

- Clarifies property rights, provides for appropriate land tenure arrangements, recognizes customary and traditional rights of indigenous people, and provides means of resolving property disputes by due process;
- Provides opportunities for public participation in public policy and decision-making related to forests and public access to information;
- Provides for the management of forests to conserve special environmental, cultural, social and/or scientific values.²¹⁶

Criteria 7.2 states:

7.2 Extent to which the institutional framework supports the conservation and sustainable management of forests, including the capacity to:

Provide for public involvement activities and public education, awareness and extension programs, and make available forest-related information;

7.5.d Enhancement of ability to predict impacts of human intervention on forests;

7.5.e Ability to predict impacts on forests of possible climate change.²¹⁷

And at 7.2e is the requirement to: Enforce laws, regulations and guidelines.²¹⁸

Despite numerous legitimate breaches referred to OEH there was no prosecutions for breaches of the EPLs on the South Coast since the signing of the RFAs, and in fact there has only been one prosecution in the whole of NSW since the signing of the RFAs.²¹⁹ The output to date of regulatory enforcement actions in no way reflects the rate of non-compliance. On ground assessment evidence suggests that non-compliance rates are now running at four per hectare of forest logged, that is, over ten percent of all areas logged are in breach. The Draft Implementation Report states breaches can run up to ninety one per audit.²²⁰

Commonwealth Legislation

The Regional Forest Agreements Act 2002 (Cth) (“RFA Act”) removes RFA areas from the scope of the *Export Control Act 1982* (Cth) and other associated regulations. Operators are not required to obtain a yearly licence to export woodchips and there are no limits on the amount of woodchips which can be removed.²²¹ The significance of this is that currently over eighty percent of NSW native forest is turned into woodchips.

The RFA Act also reinforces those provisions of an RFA agreement which require the Commonwealth to compensate a State.²²² Under an RFA when the Commonwealth takes any action to protect environmental or heritage values in native forests, which prevents or limits the use of land for any forestry operations, compensation is required.

Section 6 removes forestry operations conducted on land covered by an RFA from being subject to the environmental impact assessment provisions in the EPBC Act. This means that no environmental impact

²¹⁶ *The Montréal Process*, above n223 at a) c) d) e).

²¹⁷ The authors have had many conversation with Forests NSW officers who truly believe there is no such thing as climate change.

²¹⁸ The Montreal Process also states at 7.4 Capacity to measure and monitor changes in the conservation and sustainable management of forests, including: 7.4.a Availability and extent of up-to-date data, statistics and other information important to measuring or describing indicators associated with criteria 1-7; 7.4.b Scope, frequency and statistical reliability of forest inventories, assessments, monitoring and other relevant information; 7.5.b Development of methodologies to measure and integrate environmental and social costs and benefits into markets and public policies, and to reflect forest-related resource depletion or replenishment in national accounting systems; of which have not been adhered to by Forests NSW.

²¹⁹ See title page of this report.

²²⁰ See A Draft Report on Progress with Implementation of the New South Wales Regional Forest Agreements (2009), Resource and Conservation Unit, NSW Department of Environment and Climate Change NSW, Sydney, p175.

²²¹ Note: The *Export Control Act 1982* regulates the export of ‘prescribed goods’; in 2008 SEFE exported 977,074 tonnes of green wood and recorded a record profit of \$10,907,529.

²²² *Regional Forest Agreements Act 2002* (Cth) s8.

assessment under Commonwealth legislation is required.²²³

The EPBC Act effects public participation in environmental law enforcement in a number of ways.²²⁴ The Act states that Part 3 does not apply to forestry operations. Part 3 contains requirements for environmental approvals of activities with a significant impact on a declared World Heritage property, a National Heritage place, a declared Ramsar wetland, a listed migratory species, and actions on listed threatened species or endangered communities are prohibited without approval. It also contains the offences and penalties for breaches of these sections.

For a very comprehensive and insightful critique on issues of Indigenous cultural heritage see the Australian Network of Environmental Defenders Offices 'Submission to the Independent EPBC Act Review' (2009) available on the Commonwealth Department of Environments website.²²⁵ The Australian Network of Environmental Defenders Offices in quoting *The Declaration of the Rights of Indigenous People*, Article 19 stated:

The *EPBC Act* currently fails to implement robust Indigenous engagement provisions. ANEDO submits that the Act should be amended to implement a process of "free prior and informed consent before adopting and implementing legislative or administrative measures that may affect them (Indigenous peoples)"

The *EPBC Amendment Act 2006* (Cth) reduced rights of the public to participate in decision making processes under the EPBC Act. The public cannot request an emergency listing on the National Heritage list and there is no longer a right to appeal to the Administrative Appeals Tribunal against various decisions by the Minister under Part 13A or s303CC(5), s303FN, s303FO and s303FP.²²⁶

The greatest threats to Australia's biodiversity are caused by broad-scale land clearing and forestry operations including establishment of plantations and fire management practices, yet these industrial forestry practices continue to remain exempt from legislation because of the RFA regime.²²⁷

The remedy required is that government repeal sections 38–41 of the EPBC Act (those sections relating to forestry operations occurring in areas covered by a RFA that do not currently require approval under the EPBC Act).

NSW State Legislation

The *Forestry and National Park Estate Act 1998* (NSW).

There are many exemptions to civil litigation under the FNPE Act. The Act states at s36 that if logging or roading is in an area covered under the IFOAs that Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW) does not apply, an environmental planning instrument under the EPA Act cannot 'prohibit, require development consent for or otherwise restrict forestry operations' and in (5): this applies to an environmental planning instrument made before or after the commencement of this section.²²⁸

²²³ *Regional Forest Agreements Act 2002* (Cth) s6 (4).

²²⁴ For discussion on the effectiveness of the EPBC Act in protecting the environment see McGrath C 'Swirls in the Stream of Australian Environmental Law: Debate on the EPBC Act' (2006) 23 *Environment and Planning Law Journal* 165; and see also Macintosh A, and Wilkinson D, 'EPBC Act – The Case for Reform' (2005) 10 *Australian Journal of Natural Resource Law and Policy* 1, p139; see also Macintosh A, 'Environment Protection and Biodiversity Conservation Act An Ongoing Failure' The Australia Institute, July 2006; section 38 is the corresponding section to s36 in the *Forestry and National Park Estate Act 1998* (NSW).

²²⁵ ANEDO submission on the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), (2009),

<<http://www.environment.gov.au/epbc/review/submissions/pubs/189-australian-network-of-environmental-defenders.pdf>>.

²²⁶ See s303GJ of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

²²⁷ See The National Strategy for the Conservation of Australia's Biological Diversity (1996).

²²⁸ *Forestry and National Park Estate Act 1998* (NSW) s36 (1).

Forestry operations cannot be declared to be a project under Part 3A of the EPA Act, an order under Division 2A of Part 6 of the EPA Act does not have effect, any approval of forestry operations that is in force under Division 4 of Part 5 of the EPA Act has no effect during any period that Part 5 of that Act does not apply to the forestry operations, and any development consent for forestry operations that is in force under Part 4 of the EPA Act has no effect during any period that development consent under Part 4 of that Act is not required for the forestry operations.²²⁹

Stop work orders and interim protection orders of the NPW Act and the TSC Act do not apply.²³⁰ An order under section 124 of the *Local Government Act 1993* does not have effect.²³¹ At s39 an area in which forestry operations authorised by an IFOA may be carried out cannot be proposed or identified as, or declared to be, a wilderness area under the *Wilderness Act 1987* (NSW) or the NPWA Act.

At s 40 proceedings may not be brought if the breach is:

a breach of the FNPE Act (including a breach of any forest agreement), a breach of an IFOA (including a breach of the terms of any licence provided by the approval), a breach of an Act or law that arises because any defence provided by any such licence is not available as a result of a breach of the licence, the Act that includes the statutory provision (including a breach of an instrument made under that Act) if the breach relates to forestry operations to which an IFOA applies.²³²

Section 40 also exempts the Act from:

..a provision of an Act that gives any person a right to institute proceedings in a court to remedy or restrain a breach (or a threatened or apprehended breach) of the Act or an instrument made under the Act, whether or not any right of the person has been or may be infringed by or as a consequence of that breach.

When the legislation was introduced by the government the community was given assurances that:

The agencies which currently have enforcement and compliance powers will continue to have those powers and continue to use them to ensure that the licences are adhered to.²³³

Despite numerous legitimate breaches referred to OEHL by various communities, there has not been a prosecution for breaches of any regulation on the South Coast since the FNPE Act was introduced contrary to Section 2 of the *Interpretation Act 1987* (NSW) which states:

In any Act or Instrument, the word 'shall', if used to impose a duty, indicates that the duty must be performed.

A contravention of the terms of a relevant licence makes the person carrying out the forestry operations liable for offences for which the licence provides a defence (eg. damage to critical habitat of threatened species under the NPW Act; offence of polluting waters under the POEO Act 1997).²³⁴

²²⁹ *Forestry and National Park Estate Act 1998* (NSW) s36(2), (2A), (3), (4).

²³⁰ *National Park and Wildlife Act 1974* (NSW) s37 Part 6A; the *Threatened Species Conservation Act 1995* (NSW) Division 1 of Part 7 (*Forestry and National Park Estate Act 1998* (NSW) s37).

²³¹ *Forestry and National Park Estate Act 1998* (NSW) s38.

²³² *Forestry and National Park Estate Act 1998* (NSW) s40 (2)(a), (b) (c), & (d); at 40 (1); the *Forestry and National Park Estate Act 1998* (NSW) is also exempt from s 219, s252 and s253 of the *Protection of the Environment Operations Act 1997*.

²³³ Minister Yeadon, *NSW Legislative Assembly Hansard*, 12 November 1998.

²³⁴ *Forestry and National Park Estate Act 1998* (NSW) note on p21.

Remedies of threatened or apprehended breaches since the date of assent.²³⁵

EDEN	1999 2000	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007	2007 2008	2008 2009	TOTAL
Audits	5	3	7	3	3	4	1	2	3	4	35
Breaches	57	34	39	24	33	17	91	104	108	79*	586
Warning Letter	3	3	3	2	3	3	1	2	3	1*	24
Remedial Works	17	17	5	2	13	5	8	8	4	0	79
Clean-up Action	0	0	0	0	0	0	1	0	0	0	1
PINS	0	0	0	0	0	0	0	0	0	2*	0
Prosecution	0	0	0	0	0	0	0	0	0	0	1

SOUTHERN	2001/ 2002	2002/ 2003	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	TOTAL
Audits	1	6	4	2	2	6	3	4	28
Breaches	3	196	35	1	107	1	115	27*	485
Warning Letter	1	1	2	0	2	1	3	2*	12
Remedial Works(per site)	2	4	7	1	14	1	6	0	35
Clean-up Action	0	0	0	0	0	0	1	0	1
PINS	0	1	0	0	0	1	0	2	2
Prosecutions	0	0	0	0	0	0	0	0	0

A much oft favoured quote by Forests NSW and OEH EPRG is found in the EPA *Prosecution Guidelines*:

It has never been the rule in this country ... that suspected criminal offences must automatically be the subject of prosecution.²³⁶

In fact the full quote from Sir Hartley Shawcross goes on to state:

Indeed the very first Regulations under which the Director of Public Prosecutions worked provided that he should ... prosecute “wherever it appears that the offence or the circumstances of its commission is or are of such a nature that a prosecution in respect thereof is required *in the public interest*.”

Sheahan J held in *EPA v Forestry Commission (1997)* that:

The Forestry Commission, although gaining a profit from its activities, carries out a function in the public interest, and the public looks to the public body involved in the industry to set some standard.

Mr Justice Sheahan also held that:

The forestry industry must be persuaded to adopt preventative measures because the potential for harm to the

²³⁵ Provided by Ian Cranwell, DECCW, 2009.

²³⁶ EPA *Prosecution Guidelines* at 3: Sir Hartley Shawcross QC, UK Attorney General and former Nuremberg trial prosecutor, speaking in the House of Commons on 29 January 1951, emphasis added.

environment is great, and is a public concern reflected in the relevant legislation.²³⁷

Section 25b of the FNPE Act states the purpose of the IFOAs are:

...for the protection of the environment and for threatened species conservation.

It was a condition under the FNPE Act that OEH 'continue to enforce the conditions' of the Act.

The protection of native forests and the mitigation of climate change impacts is definitely in the public interest. Yet recent responses to forest auditing breaches have resulted in an apparent unenforceability and lack of compliance with the FNPE Act.

'...there is some difficulty in making a determination on the suitability of trees selected for retention after a harvesting event'.²³⁸

The IFOA is grey-worded, containing myriad loopholes and allowances the forestry industry has white-anted into the prescriptions, making conservation bottom priority and DPI output high priority. The promised maintenance of the enforcement of the FNPE Act has not materialised and has been budgeted to redundancy status. In Mogo State Forest for example OEH took no further enforcement action against Forests NSW for a breach when told by Forests NSW that:

Forests NSW did acknowledge that whilst some of the trees marked for retention did not strictly meet the requirements of hollow-bearing, an adequate number were retained across the landscape when unmarked trees were included in the count.²³⁹

There is no clause in the Southern Region IFOA allowing unmarked trees to be used in habitat tree retention counts.

The NSW Scientific Committee made a determination in 2007 that the loss of hollow-bearing trees is a key threatening process. During forestry operations thousands of hollow-bearing trees per week are routinely destroyed. Representations have been made to the relevant Ministers recommending changes to forestry operations prescriptions to ameliorate this environmental impact but no change has been made to on-ground forestry activities to prevent this on-going loss.²⁴⁰

OEH Environment Protection and Regulations Forestry unit often resort to sending Forests NSW officers to investigate breaches. Therefore, it should come as no surprise, that when the perpetrator of the crime is sent to report on the crime the result is no evidence of the crime.

Even though the RFAs are not law, they are merely agreements, Forests NSW still must comply with its obligations under the RFAs in order to get an exemption from the EPA Act and TSC Act's requirements. In *Brown v Forestry Tasmania* Marshall J ruled that as Forestry Tasmania had not complied with the RFA it was not exempt from the EPBC Act and even though the case was overturned on appeal, the judgment still stands.²⁴¹ If the Federal Court decision was brought down in NSW at this time, then all NSW forestry operations would have to cease. Forests NSW does not adhere to the current prescriptions, which are inadequate, and on the ground there is little or no adherence to these prescriptions by logging contractors. The penalties are low, the possibilities of being found out are minimal.²⁴²

²³⁷ *EPA v Forestry Commission of NSW* [1997] NSWLEC 96, Sheahan J.

²³⁸ Letter: DECCW to South East Forest Rescue(SEFR), 12/2/08.

²³⁹ Letter: DECCW to T Whan (SEFR) 16/2/09.

²⁴⁰ This also applies to the Key Threatening Process of removal of dead standing trees.

²⁴¹ See *Brown v Forestry Tasmania and Others* [2006] FCA 1729, Marshall J.

²⁴² Dr Gerry Bates, Lecture on Fundamentals of Environmental Law, ANU, 16 July, 2009.

Regulatory systems rely upon the enforcement of statutory requirements. When there is no enforcement contraventions go unpunished and the incentive for compliance is nil.²⁴³ The government has not ensured the adoption of ESFM practices, environmental safeguards have not improved and OEHL has not ensured the maintenance of existing regulatory controls.²⁴⁴

National Parks and Wildlife Act 1974 (NSW)

Forests NSW buffer zones on sites of significance are very small at ten metres only. If sites are damaged or destroyed there is no enforcement of section 37 subsection (1) that states Stop work orders and interim protection orders of the NPW Act can be applied.²⁴⁵ Forests NSW state any destruction was an unfortunate accident.

An article by Ridge and Seiver concerning the Sandon Point Development sums up community feeling on this Act:²⁴⁶

The central fault with the NPW Act cultural heritage provisions is that an Aboriginal community cannot prevent an activity that is likely to result in the destruction of their heritage. The agency responsible for administering the NPW Act retains all ownership rights, including the right to consent to destruction of their property, Aboriginal heritage. The NPW Act does not protect Aboriginal heritage, it merely regulates its destruction.²⁴⁷

Therefore the legislation enables the listing of sites but does not protect them.²⁴⁸ In 2006 the Gulaga Mountain blockade was an example.²⁴⁹ Also see the recent logging of Mumbulla Mountain. Mumbulla Mountain is an Area of great Aboriginal Significance. Part of the Mountain was Gazetted in 1984. Forests NSW illegally logged this place from March to May 2010.

Threatened Species Conservation Act 1995 (NSW)²⁵⁰

Forests NSW hold licences granted by the Director-General of National Parks and Wildlife. The licence holder must comply with conditions and requirements of the licence. The person carrying out the forestry operations is liable for an offence under the NPW Act.²⁵¹ The licence holder is not authorised to harm endangered populations or communities, pick plants that are part of those communities, damage critical habitat or damage the habitat of endangered populations or communities.

As is standard with forestry operations there is a loophole:

it may be a defence to a prosecution for an offence if the accused proves that the offence was authorised to be done, and was done in accordance with a general licence or was the subject of a certificate issued under s95 (2) of the TSC

²⁴³ Macintosh A, 'Why the Environment Protection and Biodiversity Conservation Act's Referral, Assessment and Approval Process is Failing to Achieve its Environmental Objectives' (2004) 21 *Environment and Planning Law Journal* 288, pg302.

²⁴⁴ The *Southern Region Forest Agreement 2002*, Environmental Management Systems 2.1, "The EMS shall be the mechanism by which Forests NSW will implement commitments and obligations under the NSW *forest agreements* and RFAs and effectively contribute to Australia's international obligations under the Montreal process" ESFM 'initiatives' are in s2.11.

²⁴⁵ *Forestry and National Park Estate Act 1998* (NSW) s37(2) states: However that does not prevent the making of an order for the purpose of protecting any Aboriginal relic or place.

²⁴⁶ For an overview see *Minister for Planning v Walker* [2008] NSWCA 224.

²⁴⁷ Ridge K and Seiver A, 'Carriage: An Elders Journey through the Courts' (2005) 10 *Indigenous Law Bulletin*.

²⁴⁸ For a very comprehensive overview of legislation effect on sites see Aliza Tubman, 'Protecting Aboriginal Sacred Sites: the Aftermath of the Hindmarsh Island Dispute' (2002) 19 *Environment and Planning Law Journal* 2.

²⁴⁹ Uncle Guboo Ted Thomas, (Aboriginal elder and traditional owner) *Mumbulla Mountain; an Anthropological and Archaeological Investigation*, Brian J Egloff, Aboriginal and Historical Resources, NPWS, 1979.

²⁵⁰ Farrier D, 'Fragmented Law in Fragmented Landscapes: the Slow Evolution of Integrated Natural Resource Management in NSW' (2002) 19 *Environment and Planning Law Journal* 89; Farrier D, Kelly AHH, Comino M and Bond M, 'Integrated Land and Water Management in New South Wales: Plans, Problems and Possibilities' (1998) 5 *Australian Journal of Natural Resource Law and Policy* 153.

²⁵¹ Section 118A, *National Park and Wildlife Act 1974* (NSW).

The damage caused by the forestry worker's interpretation of the IFOA Threatened Species Licence prescriptions is systemic and across the board.²⁵³ Despite numerous legitimate breaches referred to the OEHL by many NGO and independent forest auditing groups, there has only been one prosecution for breaches of the TSLs since the signing of the RFAs.²⁵⁴

Garth Riddell sums up the TSC Act succinctly:

After 10 years in operation the TSC Act has not met its primary objectives. Although it has made a small contribution to the conservation of biological diversity and the promotion of ecologically sustainable development, it has not gone far enough. The Act's protections are procedural rather than substantive, its provisions are placatory rather than effective and its operation has been hampered by a lack of funding, lack of will and widespread misunderstanding of the concepts underlying it.²⁵⁵

Why Legislate?

It should come as no surprise that the FNPE Act and its subordinate regulations were enacted to further the interests of the Forestry Commission, Harris Daishowa, the Construction Forestry Mining and Energy Union, National Association of Forest Industries, the logging and haulage contractors, the police and the State.²⁵⁶

Sometimes legislation arises to further the interests of one group or another, against other interest groups and sometimes the entire society.²⁵⁷

An indication that this was the case is the reaction of the Commonwealth when the Queensland government refused to sign the Queensland RFAs and proposed instead a transition to hardwood plantations.²⁵⁸ The Commonwealth Minister for Forestry, Wilson Tuckey, wrote personally to the thirty sawmills that would be affected, within three working days of the Queensland government's proposal announcement, opposing the proposal, couched in a concern for jobs.

Our fundamental view is that a SE Queensland RFA must provide for a continued, viable native timber industry...[it must fall] within the parameters of ...our requirement for real jobs protection and growth.²⁵⁹

This statement was proved erroneous when more jobs were created as part of the plantation sector proposal than under the status quo of the RFA proposal.

It seems there is in reality no obstacle to the ending of native forest logging apart from political will.²⁶⁰ The amount of money in compensation and redundancy packages to logging contractors is paltry compared to other buyout packages in previous years. Further any buyout would save the State money given the loss that Forests NSW is running.

²⁵² *National Park and Wildlife Act 1974* (NSW) s3 (a), s3(a1).

²⁵³ For example the Southern Brown Bandicoots original prescription was an exclusion zone of 200 hectares around each record of the species but in the latest harvest plan from Nadgee State Forest there is no prescription (Forests NSW Harvest Plan for Compartments 80/81 2009). Forests NSW was recently logging grey-headed flying fox habitat with immunity (Cpt 62 South Brooman, NSW).

²⁵⁴ Smoky Mouse case citation

²⁵⁵ Garth Riddell, 'A Crumbling Wall: The Threatened Species Conservation Act 10 years On' (2005) 22 *Environment and Planning Law Journal* 446.

²⁵⁶ Now Nippon Paper Group trading as South East Fibre Exports, there was a great piece of graffiti on the rear of a log truck, "I'm too young to Dieshowa"; NAFI is the very well funded lobbying body of the woodchip industry, based in Canberra.

²⁵⁷ See W Chambliss and R Seidman, *Law, Order and Power*, 1982, Addison-Wesley Pub Co, (1982), pp77-78.

²⁵⁸ Brown A J, 'Beyond Public Native Forest Logging: National Forest Policy and Regional Forest Agreements After South East Queensland' 18 *Environment and Planning Law Journal* 2.

²⁵⁹ Media Release, W Tuckey MP, "Report Does Not Support QLD RFA Proposal," REF AFFA99/130TU, 30 Nov 1999; the minister was in direct conflict with the QLD Timber Board.

²⁶⁰ See *New South Wales v Commonwealth* (2006) 81 ALJR 34.

The majority of these non-compliance breaches are of a very serious nature and have severe effects on the environment. OEHL has decided that these non-compliance breaches are so insignificant so as to not warrant prosecution. If the reason for legislation is enforcement of regulations it follows thus that there is no reason to have licence conditions and the RFAs if there is no enforcement, and therefore the RFAs should be terminated forthwith.

Michael O'Connor: At the end of the day, whether something's legal or not, is not the key question for us. The key question for us will be: Is this company sourcing its wood fibre from a forest that has been managed sustainably?

Stephen Crittenden: Just because its legal doesn't mean its sustainable?

Michael O'Connor: Correct.²⁶¹

This is What We Know and This is What We Don't Know We Don't Know

It is somehow wrong to despoil the environment, to act in ways that waste natural resources and wildlife, and to gratify pleasures of the moment at the expense of living creatures who are no threat to us.²⁶²

Millions upon millions of taxpayer dollars were funnelled into consultants and workshops to produce a plethora of reports aiming to provide an 'up-to-date snapshot' of the whole issue of native forest conservation and timber production. The timeframe for the CRAs meant that comprehensiveness became a misnomer and the quality of the reports produced left much to be desired from a scientific and social point of view. Besides the fact that all reports begin with a disclaimer that the information therein cannot be relied upon as factual, the key conclusion from the bulk of the reports was that there was not enough scientific knowledge available about forests. For example:

The modelling project has highlighted some significant areas or species where there still exist gaps in quality data. In the future, it is recommended that further effort is put into systematic targeted surveying of these priority species to enable better presence-absence modelling.²⁶³

And:

The previous report concluded that the methodology for estimating the effects of logging management on catchment water yield provided a reasonable "best guess" that was unlikely to be much improved even with the expenditure of considerable effort. This statement applies equally well to this study. Within the limitations of current data availability the methodology represents the current best understanding of the different factors that influence water quantity and quality from forested catchments. However, the absolute magnitude of the estimates are subject to considerable uncertainty."²⁶⁴

It is notable that this latter report makes no mention of climate change, even though nine years earlier the Intergovernmental Panel on Climate Change completed its report on the greenhouse effect.

The effects and rate of human-induced climate change have increased dramatically since the RFAs were signed in 1998. Climate change was not considered at all during the CRA process. Further, the significant carbon and water storage aspects of native forests have been inadequately or not addressed at all.

²⁶¹ Michael O'Connor, National Secretary, Construction Forestry Mining Engineering Union, ABC 'Background Briefing' <<http://www.abc.net.au/rn/backgroundbriefing/stories/2010/2908767.htm#transcript>>.

²⁶² D'Amato A, 'What Obligation Does Our Generation Owe the Next? An Approach to Global Environmental Responsibility' (1990) 190 *American Journal of International Law*.

²⁶³ 'Modelling Areas of Habitat Significance for Vertebrate Fauna and Vascular Flora in the Southern CRA Region' project number NS 09/EH February 2000 NSW NPWS.

²⁶⁴ ESFM Project: 'Water Quality and Quantity for the Southern RFA Region' project number NA 61/ESFM November 1999 Sinclair Knight Merz.

Numerous nationally-listed species in NSW are increasingly threatened by climate change, including species such as the Spotted-tailed Quoll, but the exemptions to the EPBC Act leaves things frozen in time, stopped at 1998, when climate change was not considered.

Climate change will dramatically increase other threats to species in the region, through increased spread of invasive species, increased fire frequency and severity, increased spread of forest dieback, and reduced stream flows. The cumulative impact of all these threats, plus industrial logging operations operating under an exemption to the EPBC Act and the RFAs, have resulted in a major impact on nationally-listed species.

Conditions placed on logging to ameliorate impacts as a result of the RFAs are increasingly inadequate as climate change escalates. Forest authorities accounting and information systems fail to assess the true value of carbon and water resources that are stored in native forests. The value of these stored resources far exceed the royalties received from logging operations, even when carbon is conservatively valued at a price of twenty dollars a tonne. The RFAs are the result of a flawed and scientifically unsound process that privileged economic concerns over the environment.

Young people from four hundred and fifty nations gathered in Bonn for the UN Talks on Climate Change. Their declaration states:

World leaders and negotiators of the climate deal, our survival is in your hands. We trust that you will take immediate action to stop deforestation, and industrial logging of the world's biodiverse forests. We are depending on you to protect our forests and provide us with a healthy, ecologically sustainable, low carbon future.

They called for:

- Immediately end deforestation, industrial scale logging in primary forests, the conversion of forests to monoculture tree crops, plantations;
- Protection of the world's biodiverse forests including primary forests in developed countries (e.g. Australia, Canada and Russia) and tropical forests in developing countries;
- Respect for the rights of women, Indigenous peoples and local communities and allow them to lead healthy and sustainable lives whilst stopping deforestation and industrial logging of primary forests in their country, and;
- To not allow developed countries to use forest protection and the avoiding deforestation and industrial scale logging of primary forests in other countries as an offset mechanism for their own emissions.

Galaxy Research conducted a public opinion poll in July 2009. The question was:

The Australian National University has found that Australia's native forests contain a large amount of carbon that would be protected by ending forest clearance. In your opinion, do you agree or disagree that the Rudd government should stop the logging of native forests?²⁶⁵

The results were:

Strongly Agree: 43%	Agree: 35%	Total Agree: 78%	
Strongly Disagree: 3%	Disagree: 11%	Total Disagree: 14%	Don't know/refused: 8%

²⁶⁵ Galaxy Research, Sample: 1100 Australians, 24-26 July, 2009, <<http://www.galaxyresearch.com.au/index.php?page=galaxy-omnibus>>; Galaxy Poll, Galaxy Research- 28/30 May 2010, Job:100502A.

In 2010 Galaxy conducted another poll. Three in four (77%) Australians want the government to stop the logging of native forests and almost three in four (72%) Australians favoured the Federal Government assisting logging contractors to take redundancies, retrain or move permanently to a plantation based industry.

Given what is now known, and all that is still yet to learn, about native forest ecosystems and about the effects of climate change, the non-enactment of the precautionary principle verges on the criminal.

Maintaining the Forest Global Carbon Pool

The Government's land-use policy frame is fundamentally erroneous. Native forests, the less efficient resource for forestry industry competitiveness, are tagged for wood production with lost opportunities for the job they do best: carbon storage. Plantations, the less efficient and less reliable resource for carbon storage, are tagged for carbon storage with lost opportunities for the job they do best: wood supply.²⁶⁶

Both the State and Federal Governments have expressed the need to have full and frank regard for the urgency of action on climate change. One of the practices that must change is the degradation of the native forest estate.

With Australia's existing plantations able to meet virtually all our wood needs, whether for domestic consumption or export, native forests are available for immediate climate change mitigation.²⁶⁷

Conditions placed on logging native forests to ameliorate impacts as a result of the RFAs are increasingly inadequate as climate change escalates. Forest authorities' accounting and information systems fail to assess the true value of carbon and water resources that are stored in native forests. There is no reporting on total native forest ecosystem biomass, the figures provided are for plantations only. The value of these stored resources in native forests far exceed the royalties received from logging operations, even when carbon is conservatively valued at a price of twenty dollars a tonne.

Brendan Mackey et al states:

Forest protection is an essential component of a comprehensive approach to mitigating the climate change problem for a number of key reasons. These include: For every hectare of natural forest that is logged or degraded, there is a net loss of carbon from the terrestrial carbon reservoir and a net increase of carbon in the atmospheric carbon reservoir. The resulting increase in atmospheric carbon dioxide exacerbates climate change.²⁶⁸

And

The remaining intact natural forests constitute a significant standing stock of carbon that should be protected from carbon emitting land-use activities. There is substantial potential for carbon sequestration in forest areas that have been logged if they are allowed to re-grow undisturbed by further intensive human land-use activities. Our analysis shows that in the 14.5 million ha of eucalypt forests in south-eastern Australia, the effect of retaining the current carbon stock (equivalent to 25.5 Gt CO₂ (carbon dioxide)) is equivalent to avoided emissions of 460 Mt CO₂ yr for the next 100 years.²⁶⁹ Allowing logged forests to realize their sequestration potential to store 7.5 Gt CO₂ is equivalent to avoiding emissions of 136 Mt CO₂ yr⁻¹ for the next 100 years. This is equal to 24 per cent of the 2005 Australian net greenhouse gas emissions across all sectors; which were 559 Mt

²⁶⁶ Ajani J, 'Australia's Transition from Native Forests to Plantations: The Implications for Woodchips, Pulp mills, Tax Breaks and Climate Change' (2008) 15 *Agenda: A Journal of Policy Analysis and Reform* 3.

²⁶⁷ Ajani J, 'Time for a Coherent Forest Policy - Finally' (2008) Centre for Policy Development, <<http://cpd.org.au/article/time-coherent-forest-policy-finally>>.

²⁶⁸ Mackey B, Keith H, Lindenmayer D, Berry S, 'Green Carbon: The Role of Natural Forests in Carbon Storage, Part 1, A Green Carbon Account of Australia's South-eastern Eucalypt Forest, and Policy Implications' ANU E Press, (2008), online version available at: <http://epress.anu.edu.au/green_carbon_citation.html>.

²⁶⁹ Gigatonne (Gt) equals one billion or 1.0 x 10⁹ tonnes; Megatonne (Mt) equals one million or 1.0 x 10⁶ tonnes.

CO₂ in that year.²⁷⁰

The report goes on to state:

We can no longer afford to ignore emissions caused by deforestation and forest degradation from every biome (that is, we need to consider boreal, tropical and temperate forests) and in every nation (whether economically developing or developed). We need to take a fresh look at forests through a carbon and climate change lens, and reconsider how they are valued and what we are doing to them.²⁷¹

In NSW forest degradation in 2006 created over seventeen percent of NSWs greenhouse gas emissions.²⁷² Ending native forest logging would assist in reducing the greenhouse gas emissions of the State.

The clearing of native forests and woodlands and their degradation - mainly through logging - generates a conservatively estimated 18 per cent of Australia's annual greenhouse gas emissions.²⁷³

Professor Peter Wood and Professor Judith Ajani indicate that at CO₂ prices of just ten to fifteen dollars per tonne, which is less than the Garnaut Review's recommended starting price for carbon pollution permits, hardwood plantation owners will receive more money from growing carbon than wood.²⁷⁴ The Australian Greens included in their 2010 election campaign a platform of a \$23 per tonne carbon tax levied on the heaviest polluters, as an interim measure 'to a functional and effective emissions trading scheme'.²⁷⁵

Australia is very fortunate, by letting previously logged native forests regrow to their natural carbon carrying capacity, the ANU scientists estimate that they would soak up around 7500 million tonnes of CO₂-e over the coming one hundred to two hundred years.²⁷⁶

Private Native Forestry

Despite much scientific knowledge about the value of healthy forests as habitat conservation and carbon sinks, native forests in New South Wales can be logged with approval in varying ways depending on land tenure.²⁷⁷ Conservationists have for some time lobbied strongly for conservation of both public and private lands, effective regulation and regulatory response to native vegetation degradation and land clearing, and advocated for stronger legislation governing native forest management.²⁷⁸

Over-logging of public forests has seen private forests, once envisioned as reservoirs of conservation, targeted, particularly in Northern regions, to supplement government wood supply agreements. Fortunately traditional distinction of conservation on land tenures within the wider community is changing. Due to increasing public knowledge on climate change it is understood there needs to be considerably more conservation, both on public

²⁷⁰ Mackey et al, above n 276.

²⁷¹ Mackey et al above n 276, 13.

²⁷² Department of Climate Change, *Australia's National Greenhouse Accounts 2006 State and Territory Greenhouse Gas Emissions*, (2008) 17, the figure is 17.2%.

²⁷³ Blakers M, 'Comments on Garnaut Climate Change Review: Issues Paper 1 Land-use – Agriculture and Forestry' (2008).

²⁷⁴ Wood P J and Ajani J, Submission to the Commonwealth Government on the Carbon Pollution Reduction Scheme Green Paper + Addendum, (2008).

²⁷⁵ *Green Voice* Winter Edition 2010, 4.

²⁷⁶ Ajani J, above n 275.

²⁷⁷ Steffen W, Burbridge A A, Hughes L, Kitching R, Lindenmeyer D, Musgrave W, Stafford Smith M and Werner P A, *Australia's Biodiversity and Climate Change: a Strategic Assessment of the Vulnerability of Australia's Biodiversity to Climate Change*, A Report to the Natural Resource Management Ministerial Council commissioned by the Australian Government, CSIRO Publishing, (2009); see Park H, *Biodiversity: Regulatory Frameworks Briefing Paper 3/2010*, New South Wales Parliamentary Library Research Service (2010).

²⁷⁸ For one example of lobbying of government to enact regulations on private land see National Park Association, <<http://www.npansw.org.au/web/journal/200604/logging.htm>> viewed 23 July 2010.

and private land.²⁷⁹

Both State and Commonwealth legislative instruments regulating conservation have thus far proved inadequate to meet international and scientific benchmarks of nature conservation. The statutes and delegated legislation is inadequate and there is lack of compliance and enforcement.

Logging on private land is allowed through the NV Act's delegated legislation, the Private Native Forestry Code of Practice ("PNF Code").

Improving and Maintaining?

Under the PNF Code broadscale clearing for purposes of private native forestry 'improves and/or maintains environmental outcomes' if it complies with requirements of the Code.²⁸⁰ The PNF Code provides that any area cleared must be allowed to regenerate and not subsequently cleared 'except where otherwise permitted'.²⁸¹ A landowner can also seek development consent to undertake private native forestry outside provisions of the Code under the *Native Vegetation Act 2003* (NSW) ("NV Act").²⁸² Landowners must prepare a PVP, then a Forest Operation Plan ("FOP") which must contain recorded locations of any listed populations or endangered ecological communities.²⁸³

While the FOP must contain details of flora and fauna management actions, it is not required to mention impacts logging will have on those species. Further, if there are records of species in adjoining areas of public land, species can be ignored for FOP preparation if it can be demonstrated that species have been protected and conditions of the relevant TSLs or IFOAs have been met.²⁸⁴

The PNF Code provides that if there are not enough hollow bearing trees, that extra recruitment trees from the 'next cohort' must be retained, so total numbers of hollow bearing and recruitment trees retained in each two hectare area is 20.

As discussed earlier in this report the loss of hollow bearing trees has been listed as a Key Threatening Process since 2007.²⁸⁵ A lengthy discussion of conservation measures to maintain hollow bearing trees has been

²⁷⁹ Galaxy Poll, Galaxy Research- 28/30 May 2010, Job:100502A, three in four (77%) Australians want the government to stop the logging of native forests, almost three in four (72%) Australians favour the Federal Government assisting logging contractors to take redundancies, retrain or move permanently to a plantation based industry.

²⁸⁰ For a comprehensive background and critique see Prest J, 'The Forgotten Forests: the Environmental Regulation of Forestry on Private Land in New South Wales between 1997 and 2002' Phd Thesis, Centre for Natural Resources Law and Policy, University of Wollongong, (2003), available at < <http://ro.uow.edu.au/theses/413> >; under the *Native Vegetation Conservation Act 1997* (NSW) regional committees were formed, to produce regional vegetation management plans allegedly to designate areas of high conservation value; the *Native Vegetation Act 2003* (NSW) did not come into effect until 2005.

²⁸¹ *Private Native Forestry Code of Practice for Southern NSW 2008* Introduction p1.

²⁸² *Private Native Forestry Code of Practice for Southern NSW 2008*; the Silvicultural Guidelines state it is 'heavily based' on Florence RG, *Ecology and Silviculture of Eucalypt Forests*, CSIRO Publishing, Melbourne, 2004, which was prepared for use with the *Native Vegetation Conservation Act 1997*, yet there is no mention of climate change or its effects in this work; Florence stated in his 1984 thesis "When an mature, mixed eucalypt-rainforest community is felled and the debris burned, massive Acacia regrowth may develop very rapidly from soil-stored seed" in Florence R G, and Marsh J P, 'Soil Factors Limiting the Establishment and Vigour of Spotted Gum Regrowth' (1984) Department of Forestry, ANU Research Project.

²⁸³ Listed under schedules of the *Threatened Species Conservation Act 1995* (NSW) and in the Listed Species Ecological Prescriptions for Southern NSW Forests.

²⁸⁴ *Private Native Forestry Code of Practice for Southern NSW 2008* cl 2.1; the PNF Code also contains provisions for Australian Group Selection ("AGS") despite the finding that this patch clear felling has significant impact on species and their habitat.

²⁸⁵ *Threatened Species Conservation Act 1995* (NSW) Sch 3 s8; see DECCW <<http://www.environment.nsw.gov.au/determinations/LossOfHollowTreesKtp.htm>>.

discussed since 1999.²⁸⁶ There has been a priority action statement produced for this KTP, yet habitat to recruitment tree ratio in the PNF Code is still one to one.²⁸⁷ This is despite the Expert Panel stressing that persistence and perpetuation of hollow bearing trees is imperative for survival of forest fauna.²⁸⁸

Rotation time definitions in the PNF Code seem parlous and seem dependent on a basal area count to assess the stocking rate of the stand.²⁸⁹ Of note is the inclusion of the out-dated native forest logging industry catchphrase 'promote regeneration through disturbance'.²⁹⁰ This terminology is in conflict with much scientific knowledge. Many scientists doubt the success of what is called 'natural seeding' after logging for eucalypt species.²⁹¹ If this argument held true there would be no burgeoning issue of lack of supply.²⁹²

It seems on analysis that prescriptions for habitat protection and conservation contained in the PNF Code are inadequate. Due to lack of available data it is difficult to know whether prescriptions are being met on private land.²⁹³ Given that requirements for species 'protection' under the TSLs or IFOAs are not being met on public land, due to non-compliance of legislation and delegated legislation, if logging has occurred on adjoining State forest land it would be difficult to argue that species have been protected.²⁹⁴

A comparison of public and private forestry codes shows the PNF Code is modelled on the IFOAs that allegedly apply to public State forests which fall under RFA areas. Under IFOAs many severe breaches are being classed as 'technical' by the regulator. This is often without the regulator viewing the breach. While the regulator has instigated proceedings on land clearing enacted without approval there seems to be some reticence to enforce compliance of the PVPs.²⁹⁵

²⁸⁶ See 'Review of Protective Measures and Protective Measures and Forest Practices - Biodiversity Workshop Southern Region' Ecologically Sustainable Forest Management Group, July 1999, Project No. NA45/ESFM p176-177.

²⁸⁷ *Threatened Species and Conservation Act 1995* (NSW) s74 and s90A; a threat abatement plan sets out recovery and threat abatement strategies that must be adopted for promoting the recovery of each threatened species, population and ecological community to a position of viability in nature and for managing each key threatening process.

²⁸⁸ Review of Protective Measures, above n 294; see also Goldingay R, 'Characteristics of Tree Hollows used by Australian Birds and Bats' (2009) 36 *Wildlife Research* 394; see also Gibbons P, Lindenmayer D B, 'Issues Associated with the Retention of Hollow-Bearing Trees Within Eucalypt Forests Managed for Wood Production' (1996) 83 *Forest Ecology and Management* 245.

²⁸⁹ Lindenmayer D B, Franklin J F, Fischer J, 'General Management Principles and a Checklist of Strategies to Guide Forest Biodiversity Conservation' (2006) 131 *Biological Conservation* 433.

²⁹⁰ Bizarrely the PNF Code provides at cl 3.3: The minimum stand stocking...must be achieved within 24 months of a regeneration event; and at (2) In this clause, regeneration event is a harvesting or thinning operation.

²⁹¹ See Fischer J, Lindenmayer D B, 'The Conservation Value of Paddock Trees for Birds in a Variegated Landscape in Southern New South Wales: Species Composition and Site Occupancy Patterns' (2002) 5 *Biodiversity and Conservation* 807.

²⁹² Bauhus J, McElhinny C, and Alcorn P, 'Stand Structure and Tree Growth in Uneven-Aged Spotted Gum (*Corymbia maculata*) Forests: Some Implications for Management' (2002) 75 *Forestry* 451, 'only a small proportion of trees are growing at an acceptable rate'; the forests in the Southern region have been targeted for woodchip production as there is a predominance of Spotted gum, Stringybark, Silvertop Ash and Brown Barrel forests. This is because they are blonde wood. Spotted gum is particularly targeted as it is a softwood. 10-15 years after heavy logging a quarter of a compartment will have no Spotted Gum regrowth at all, and in the remaining area any Spotted Gum will be relatively weak and usually dominated by more vigorous Acacias. Where Spotted Gum seedlings become established, they lack the early vigour of Acacia and other shrub species. The more vigorous Acacia regrowth often overwhelms eucalypt seedlings, because unlike the hard-coated Acacia seed, eucalypt seed will only remain viable for a short time in the soil, probably no more than 6-12 months.

²⁹³ The *Annual Report on Native Vegetation 2008* provides that in New South Wales in 2008, 2060ha of land was legally cleared under approved private Harvesting Plans, while overall there was a total reduction of over 48 193ha of 'native woody vegetation'; *NSW Annual Report on Native Vegetation 2008*, Department of Environment Climate Change and Water, p2; a condition of the *Native Vegetation Regulations* at s12: The Minister is to make publicly available on the Internet: (a) the Global Positioning System ("GPS") coordinates of the location of land that is the subject of a development consent or PVP that provides for broadscale clearing of native vegetation on the land; Of note is that the reporting of private native forestry on the regulators website is grossly inadequate, the map coordinates for PVPs are erroneous and there are no figures for actual logging events or area logged; if calculated on the PVP register for Southern 1097ha were logged in 2010, however without data, analysis is impossible, this is indicative of the secrecy that surrounds PNF.

²⁹⁴ Of interest the 'business as usual' approach by State forestry is causing some concern among landowners post logging, the main concerns seem to be badly eroded snig tracks and the amount of debris left behind; for a Queensland example see Ryan S, Taylor D, 'A Methodology for Private Native Forest Extension in South East Queensland' (2001) The Regional Institute, < <http://www.regional.org.au/au/iufro/2001/ryan.htm> >.

²⁹⁵ See *Director-General of the DECC v John Rae* [2009] NSWLEC 137; *Director-General, Dept of Environment and Climate Change v Calman Australia Pty Ltd; Iroch Pty Ltd; GD & JA Williams Pty Ltd t-as Jerilderie Earthmoving* [2009] NSWLEC 182; *Director-General of the Department*

Issues for auditors hinge on access. Gaining access to audit public State forest can be difficult for non-government auditors. Gaining access to audit private forest logging operations is nearly impossible. A breach with proof of actual harm is not leading to civil penalty or injunction, what chance a breach without proof. While some law is better than none, if law is inadequate and not backed up with appropriate regulatory response it is dormant law.²⁹⁶

Logging Endangered Ecological Communities

The erroneous statement that broad scale land clearing can in any way be improving environmental outcomes, particularly in the context of logging endangered ecological communities (“EECs”), is indicative of the whole native forest logging industry publicity spin. If the point of listing a community is that it is endangered then to allow logging in endangered ecological communities seems in complete conflict with everything known about biodiversity, climate change and the link to forest degradation. It is also in tension with other legislative instruments.

For example the Guidelines breach the EPBC Act by opening up federally listed EECs for logging in areas both inside and outside RFA regions.

Logging can occur in endangered ecological communities as part of an approved ‘Ecological Harvesting Plan’ if approved by OEH.²⁹⁷

Commercial logging does not ‘maintain or improve’ the environment under any circumstances - it is a recognised threat to the environment. This erroneous assumption would hold if ‘environmental outcomes’ are furthering species to extinction and increasing degradation of native forest.

Logging under so called Ecological Harvest Plans will not improve forest structure of the Endangered Ecological Community, particularly when it is 80% of the total EEC. This is more Forests NSW spin on an already flawed piece of delegated legislation. The Guideline refers to ‘thinning’ operations, but there is already a ‘thinning’ pathway under Property Vegetation Plans (“PVPs”). In the Southern and Eden regions the term thinning is synonymous for clearfelling or patch clearfelling.

The authors are absolutely opposed to the PNF Guidelines. We call for their immediate withdrawal. The PNF Code opens a massive loophole in the native vegetation laws and further entrenches the ‘cut and run’ mentality of the native forest logging industry.

Conclusion

The disclaimer at the beginning of most of the documentation of Forests NSW is apt:

While every reasonable effort has been made to ensure that this document is correct at the time of printing, the State of NSW and the Commonwealth of Australia, its agents and employees, do not assume any responsibility and shall have no liability, consequential or otherwise, of any kind, arising from the use of or reliance on any of the information contained in this document.

of Environment and Climate Change v Hudson [2009] NSWLEC 4; *Department of Environment and Climate Change v Olmwood Pty Limited* [2010] NSWLEC 15.

²⁹⁶ Gunningham N, ‘Environmental Auditing: Who Audits the Auditors?’ (1993) August *Environmental and Planning Law Journal* 229 “If the audit is conducted, particularly internally, by the firm’s own employees, then the internal auditors may come to share the same corporate goals”.

²⁹⁷ *Private Native Forestry Code of Practice for Southern NSW 2008* cl 4 Table C.

‘Reasonable effort’ for establishment of fact has not been taken by the drafters of Forests NSW documentation. All criteria in every report reviewed are lacking in up-to-date verifiable scientific data, or in fact any data, to support any of the claims.

It is difficult to see how broadscale clearing of native forest can equate to improving environmental outcomes.²⁹⁸ Or how a logging event can be defined as regeneration. Carefully avoiding the word sustainable, the objects of the PNF Code are stated as ensuring a:

supply of timber products from privately owned forests at a regular rate that can be maintained indefinitely for present and future generations while at the same time maintaining non-wood values at or above target levels considered necessary by society for the prevention of environmental harm and the provision of environmental services for the common good.²⁹⁹

Due to failure to enact principles of ESFM, principles of inter-generational equity in meeting the above objective seems in doubt. Further due to current logging practices it is difficult to argue that maintaining environmental values at or above target levels can be achieved. Given current knowledge on causes and effects of climate change it would be difficult to argue that continuance of logging could maintain these levels given the amount of environmental harm caused. Certainly with regard to climate change and extinction of species it would be very difficult to argue that logging was ‘for the common good’.

Thus far legislative instruments regulating conservation have proved inadequate to meet standards of nature conservation. Regulatory response has proved inadequate to deter offenders. The combination of non-compliance, inadequate legislation and lack of appropriate regulatory response could ensure that extinction of species is a certainty.

On the south coast the distinction between conservation in protected areas in public ownership and conservation on privately owned land is becoming wider as more private native forestry is undertaken. It seems, while there is no guarantee of survival in the coming years, there is more chance for species if they are resident in National Parks, threats of habitat being consumed by ‘reduction burns’ aside.

Political will is crucial to improving forest law compliance and ensuring that measures taken have positive outcomes for conservation that are long-lasting. As there has been no compliance and continuous over-logging, the only positive outcome for conservation would be to end native forest logging. The challenge now for public native forest conservation is to pressure political will to transfer all State owned land to National Parks co-managed with traditional owners.

This measure could put increased pressure on private land therefore legislation should be enacted halting logging of all native forest. The anticipation is that, with increasing knowledge of the link between climate change and forest degradation, landowners and Government will cease logging of native forest. Until then species who cannot speak or defend themselves are reliant on political will and the care of developers, farmers, loggers and multinationals.

²⁹⁸ *Private Native Forestry Code of Practice for Southern NSW 2008* p1; see Gibbons P, Briggs S V, Ayers D, Seddon J, Doyle S, Cosier P, McElhinny C, Pelly V, Roberts K, ‘An Operational Method to Assess Impacts of Land Clearing on Terrestrial Biodiversity’ (2009) 9 *Ecological Indicators* 26.

²⁹⁹ *Private Native Forestry Code of Practice for Southern NSW 2008* p1.

The State of the South East Forests Reports findings are:

That the RFAs did not consider the critical issues of climate change or water and are therefore inadequate instruments to determine forest management.

The Regional Forest Agreements are severely inadequate to protect forest species and forest habitats. The conservation targets of almost all nationally-listed fauna species and many nationally-listed flora species were not achieved through the RFAs and substantial additional conservation action is still required to meet minimum benchmarks. Using the NSW government's own conservation analysis and data produced during the CRA, it is evident that only one of the twenty nationally-listed forest fauna species met their conservation targets after the RFAs, and many nationally-listed flora species have fallen dramatically short of their targets. The number of threatened and endangered species has risen since the RFAs were signed and many threatened and endangered flora and fauna species are at extreme risk from current logging operations. Current logging practices do not adequately protect Australia's native flora and fauna. The threat of native forest logging must be considered a matter of national significance.

In the south east of NSW, covered by the Eden and Southern RFAs, the annual net areas logged have rapidly increased and yields have fallen. In other words, the industry is having to log ever greater areas to maintain the same levels of production. Demonstrably unsustainable timber volumes were committed for twenty years, and these even extend beyond the term of the RFAs. The FRAMES industry modelling system used to derive these volumes substantially over-estimated available timber volumes. Consequently, after the twenty year period of the RFAs, there will be a dramatic short-fall in timber. Royalties in South East NSW are now less, in real terms than they were fifteen years ago and Forests NSW is making less in royalty revenue than it expends in managing woodchipping operations. The industrial logging practices in Australia's native forests by Forests NSW under the RFAs is unsustainable, economically, culturally and environmentally. The outcomes of the RFAs are not sustainable, even from a timber-production perspective.

Private lands were not assessed as part of the RFAs, but they are being logged with very weak regulation at an alarming rate under an EPBC Act exemption. Current prescriptions and legislation to protect native forests on private land are extremely inadequate.

Other authorities catchment planning agencies have almost unanimously concluded that forests are more valuable left standing in catchments than sold as timber.

The almost complete consensus of public opinion is the requirement to leave the land in a better state than it was found, and to eliminate or drastically reduce all native forest logging immediately. In concurrence with the Stern Report and the Mackey Report, action to avoid further deforestation should be an urgent priority. Accordingly, if no action is taken, the health of native forests and therefore the Australian public will be severely detrimentally affected.

The RFAs have not been properly implemented, review timeframes have not been met and key components have not been conducted. The conditions on logging under legislative regimes, on which the RFAs rely to deliver 'ecologically sustainable management', are inadequate, frequently breached

and very poorly enforced. In addition, third party appeal rights have been removed in NSW and there is no avenue for the community to enforce the law directly, despite the transparent failure of the NSW Government to enforce it properly itself. There should be no exemption for RFA forestry operations which are demonstrably unsustainable, for which key agreements relating to sustainability reviews have been ignored and/or wood supply contracts signed outside the timeframe of the RFAs.

There can be no support for exemptions for particular activities or areas, unless there is genuine duplication of assessment requirements, and it is guaranteed that best practice assessment will occur. This is not the case under the RFAs.

A judicial inquiry should be instigated into the nature, extent and effect of any unlawful or otherwise inappropriate logging or workplace practice including any practice or conduct relating to, but not limited to:

(i) the *Forestry Act 1916*, the *Forestry and National Park Estate Act 1998*, the *Integrated Forestry Operations Approvals*, the *Regional Forest Agreements* or other laws relating to forestry.

(ii) fraud, corruption, collusion, anti-competitive behaviour, coercion, violence, false and misleading statements.

The nature, extent and effect of any unlawful or otherwise inappropriate practice or conduct relating to;

(i) failure to disclose or properly account for practices and financial transactions.

(ii) inappropriate management, use or operation of industry funds for redundancy or any inappropriate use of funds, given that Forests NSW native forest sector is currently running at over sixteen million dollars in the red.

The inquiry should inquire into whether any practice or conduct that might have constituted a breach of the law should be referred to the relevant Commonwealth or State agency.

If Forests NSW can prove it has adhered to the RFAs and IFOAs management obligations then the RFAs must be inadequate and flawed instruments with which to protect the environment and the communities interests. If, on the other hand, the RFAs are found to be delivering positive environmental outcomes then Forests NSW must be found to be mismanaging the native forest estate to a serious degree.

Forests NSW as the agency of the RFAs has shown itself to be a complete economic and environmental failure. The RFAs have not been found to be durable, the obligations and commitments that they contain are not ensuring effective conservation, and suffer chronic under-performance in the achievement of critical action milestones.

The RFA regime has already effectively postponed inevitable environmental protection measures for ten years. As a matter of urgency these measures can no longer remain in limbo. There are significant economic, environmental and social benefits to support ending native forest logging and to ensure a swift transition of logging operations into the existing plantation estate.

As it is not possible for the Commonwealth to enter into agreements which bind the legislative and executive arms of government native forest logging under the RFAs and delegated legislation is unlawful.

Further the legislators have not complied, the regulators have not regulated and the workers are not complying, therefore clause 8 of the RFAs has been triggered. This is giving effect to ending the RFAs as the mode of

native forest management and the end to native forest logging as a whole.

State and Federal Governments must have full and frank regard for the urgency of action on climate change and biodiversity protection by ending the rampant degradation of the native forest estate.

In light of the reports findings South East Forest Rescue calls for indigenous ownership of all public native forest, a complete stop on logging of EECs, complete transfer of wood product reliance to the plantation timber industry and salvage recycled hardwood timber industry output, a single authority for national native forest stewardship modelled on the New Zealand example and an immediate nation-wide program of catchment remediation and native habitat reforestation.

Acronyms

BMAD	Bell Miner Associated Dieback
CAR	Comprehensive Adequate Representative
CITES	United Nations Convention on International Trade in Endangered Species
CRA	Comprehensive Regional Assessment
DAD	Drought Associated Dieback
DAFF	Department of Agriculture, Forests, & Fisheries (Commonwealth)
DECCW	Department of Environment Climate Change & Water (NSW)
DOPI	Department of Primary Industries (NSW)
EEC	Endangered Ecological Community
EMS	Environmental Management System
EPA	Environment Protection Authority
EPA Act	Environmental Planning and Assessment Act 1979 (NSW)
EPBC Act	<i>Environment Protection & Biodiversity Conservation Act 1999</i> (Cth)
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
ESFM	Ecologically Sustainable Forest Management
FA	Forest Agreement
FMZ	Forest Management Zone
FNPE Act	<i>Forestry & National Park Estate Act 1998</i> (NSW)
FNSW	Forests NSW
FOP	Forest Operations Plan
GHG	Greenhouse Gases
HQL	High Quality Log
IFOA	Integrated Forestry Operations Approval
JANIS	Joint ANZECC/Ministerial Council on Forestry Fisheries & Aquaculture NFPS Implementation Subcommittee
LNE	Lower North East
NCC	Nature Conservation Council NSW
NFPS	<i>National Forest Policy Statement</i> (1992)
NHA	Net Harvest Area
NPW Act	<i>National Parks and Wildlife Act 1974</i> (NSW)
NV Act	Native Vegetation Act 2003 (NSW)
OEH	NSW Office of Environment & Heritage
PETTY	Pulp Every Tree This Year
PNF	Private Native Forestry
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
PVP	Property Vegetation Plan
RFA	Regional Forest Agreement
SBB	Southern Brown Bandicoot
SEFE	South East Fibre Exports
SEFR	South East Forest Rescue
SF	State Forest
SFO	State Forest Officer
SOFR	State Of the Forests Reports 1998/2003/2008 (Commonwealth)
TSL	Threatened Species Licence
UNE	Upper North East
WSA	Wood Supply Agreement

Bibliography

Books and Journal Articles

Ajani J, *The Forest Wars*, Melbourne University Press, 2007.

Bonyhady and Christoff (eds), *Climate Law in Australia*, Federation Press, Sydney (2007).

Brack C L, Richards G, and Waterworth R, 'Integrated and Comprehensive Estimation of Greenhouse Gas Emissions from Land Systems' (2006) 1 *Sustainability Science* 91.

Cowie A L, Kirschbaum M U F, Ward M, 'Options for Including All Lands in a Future Greenhouse Gas Accounting Framework' (2007) 10 *Environmental Science Policy* 306.

Dean C, Roxburgh S, Mackey B, 'Growth Modelling of Eucalyptus regnans for Carbon Accounting at Landscape Scale' in Amaro A, Reed D, and Soares P, (eds) *Modelling Forest Systems*, CAB International 2003.

Durrant N, 'Tortious Liability For Greenhouse Gas Emissions? Climate Change, Causation And Public Policy Considerations' (2007) 23 *QUT Law and Justice Journal*.

Farrier D, and Stein P, *Environmental Law Handbook: Planning and Land Use in New South Wales*, 3rd ed, Sydney: Redfern Legal Centre Publishing (2002).

Friedlingstein P, Cox P, Betts R, Bopp L, Von Bloh W, Brovkin V, Cadule P, Doney S, Eby M, Fung I, Bala G, John J, Jones C, Joos F, Kato T, Kawamiyak M, Knorr W, Lindsay K, Mathews H. D, Raddatz T, Rayner P, Reick C, Roeckner E, Schnitzler K G, Schnur R, Strassmann K, Weaver A J, Yoshikawa C, Zeng N, 'Climate–Carbon Cycle Feedback Analysis: Results from the C4MIP Model Intercomparison' (2006) 19 *Journal of Climate* 3337.

Hodgkinson and Garner, *Global Climate Change: Australian Law and Policy*, Lexis Nexis, (2009).

Horn L, 'Climate Change Litigation Actions for Future Generations' (2008) 25 *EPLJ* 115.

Houghton J T, 'Tropical Deforestation as a Source of Greenhouse Gas Emissions' (2005) in *Tropical Deforestation and Climate Change*, Moutinho and Schwartzman [eds.].

Jehne W, 'Forests Make Rain - the Role of Forests in the Microbial Nucleation and Governance of Rainfalls and Sustainable Bio-Systems' (2006) CSIRO.

Keith H, Leuning R, Jacobsen K, Cleugh H, Van Gorsel E, Raison R, Medlyn B, Winters A, Keitel C, 'Multiple Measurements Constrain Estimates of Net Carbon Exchange by a Eucalyptus Forest' (2009) 149 *Agricultural and Forest Meteorology* 535.

Kirschbaum M, Schlamadinger B, Cannell M, Hamburg S, Karjalainen T, Kurz W, Prisley S, Schulze E, Singh T, 'A Generalised Approach of Accounting for Biospheric Carbon Stock Changes Under the Kyoto Protocol' (2001) 4 *Environmental Science & Policy* 73.

Luyssaert S, Schulze E D, Borner A, Knohl A, Hessenmoller D, Law B E, Ciais P, and Grace J, 'Old-Growth Forests as Global Carbon Sinks,' (2008) 455 *Nature* 213.

Lyster R, *Environmental Law in NSW*, Federation Press, (2007).

Lyster R, and Bradbrook A, *Energy Law and the Environment*, Cambridge University Press (2006).

- Palmer K, and Burtraw D, 'Cost-Effectiveness of Renewable Electricity Policies' (2005) 27 *Energy Economics* 873 [13].
- Pingoud K, Schlamadinger B, Grönkvist S, Brown S, Cowie A, Marland G, 'Approaches for Inclusion of Harvested Wood Products in Future GHG Inventories under the UNFCCC, and Their Consistency with the Overall UNFCCC Inventory Reporting Framework,' IEA Bioenergy, (2004).
- Preston B, 'Climate Change Litigation' (2008) 26 *Environment and Planning Law Journal* 169.
- Peel J, 'Climate Change Law: The Emergence of a New Legal Discipline' (2008) 32 *Melbourne University Law Review* 922.
- Rolett B, and Diamond J, 'Environmental Predictors of Pre-European Deforestation on Pacific Islands' 431 *Nature* September 2004.
- Rose A, 'Gray v Minister for Planning: The Rising Tide of Climate Change Litigation in Australia' (2007) 29 *Sydney Law Review* 725.
- Roxburgh S H, Wood S W, Mackey B G, Woldendorp G, and Gibbons P, 'Assessing the Carbon Sequestration Potential of Managed Forests: a Case Study from Temperate Australia,' (2006) *Journal of Applied Ecology* 43 1149.
- Santisirisomboon J, Limmeechokchai B, Chungpaibulpatana S, 'Impacts of Biomass Power Generation and CO₂ Taxation on Electricity Generation Expansion Planning and Environmental Emissions' (2001) 29 *Energy Policy* 975.
- Searcy E, Flynn P, Ghafoori E, and Kumar A, 'The Relative Cost of Biomass Energy Transport' (2007) 136-140 *Applied Biochemistry and Biotechnology* 639.
- Solomon S, Qin D, Manning M, Chen Z, Marquis M, Averyt K B, Tignor M, Miller H L (eds), IPCC, '2007: Summary for Policymakers' in: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2007.
- Spinellia R, Ward S M, Owendec P, 'A Harvest and Transport Cost Model for Eucalyptus spp. Fast-growing Short Rotation Plantations' (2009) 33 *Biomass and Bioenergy* 1265.
- Watson C, 'Forest Carbon Accounting: Overview & Principles' prepared for UNDP, UNEP, UNEP Risoe Centre and CDM Capacity Development in Eastern and Southern Africa, < <http://www.undp.org/climatechange/carbon-finance/Docs/Forest%20Carbon%20Accounting%20-%20Overview%20&%20Principles.pdf> >.
- Woolf T and Biewald B, 'Efficiency Renewables and Gas: Restructuring as if Climate Mattered' (1998) *Electricity Journal* January/February 64.

Reports

ABARE Australian Forest and Wood Products statistics, March and June Quarters 2009.

Audit Office of NSW (2009). *Auditor General's Report: Sustaining Native Forest Operations- Forests NSW*, Audit Office of New South Wales, Sydney.

The Australian Government's Initial Report under the Kyoto Protocol, 'Australia's National Greenhouse Accounts Report to facilitate the calculation of the assigned amount of Australia pursuant to Article 3, paragraphs 7 and 8 of the Kyoto Protocol,' Submission to the UNFCCC Secretariat.

Breen D A, Avery R P, and Otway N M, *Broadscale Biodiversity Assessment of Marine Protected Areas in the Batemans Shelf and Twofold Shelf Marine Bioregions* (2005) Final Report, NSW Marine Parks Authority.

Buhaug Ø, Corbett J J, Endresen Ø, Eyring V, Faber J, Hanayama S, Lee D S, Lee D, Lindstad H, Markowska A Z, Mjelde A, Nelissen D, Nilsen J, Pålsson C, Winebrake J J, Wu W Q, Yoshida K, Second IMO GHG Study *Prevention of Air Pollution from Ships*, International Maritime Organisation, Marine Environment Protection Committee, 2009.

Climate Change 2007: Mitigation of Climate Change, Working Group III.

Commonwealth of Australia, *National Forest Policy Statement: a New Focus for Australia's Forests*, Commonwealth of Australia, Canberra (1992).

Final Communication from the Commission, *The support of electricity from renewable energy sources* {SEC(2005) 1571}, Commission of the European Communities, Brussels, 7.12.2005 COM(2005) 627.

Forests NSW Consolidated Annual Financial Report, Year ended 30 June 2007.

Forests NSW Seeing Reports 2006/07, 2007/08.

Food and Agriculture Organization of the United Nations (2005) *State of the World's Forests*, Washington, DC: United Nations.

Fuel Consumption Rates, 4x4 fuel table, 4x4 *Australia Magazine*, <<http://www.4wdworld.com.au/listing.php?id=677&type=print>>.

Haulage-Double Shift Jinker-Native Forests, Forestry Industry Council Rates and Costs Schedule 2006, Industrial Relations Victoria, Department of Innovation, Industry & Regional Development.

Hitachi Zaxis 350 Forester Isuzu Engine: log loader, road builder, harvester and snigger Specification Manual, Hitachi Forestry Products.

Intergovernmental Panel on Climate Change, *Climate change 2001: the scientific basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, Houghton JT, Ding Y, Griggs DJ, et al. (eds.), Cambridge University Press, [2001].

NSW Forest Agreements Implementation Reports 2005/2006, 2006/2007: Upper North East, Lower North East, Eden and Southern regions.

NSW Government Submission to NSW Parliament's Legislative Assembly Standing Committee on Natural Resource Management (Climate Change) 2009.

Opportunities for Using Sawmill Residues in Australia, Forestry and Wood Products Australia (2007).

Performance Audit 'Sustaining Native Forest Operations' Auditor-General's Report to Parliament 2008.

Performance Audit 'Sustaining Native Forest Operations,' Auditor-General's Report 2009.

Penman J, Gytarsky M, Hiraishi T, Krug T, Kruger D, Pipatti R, Buendia L, Miwa K, Ngara T, Tanabe K, Wagner F, *Definitions and Methodological Options to Inventory Emissions from Direct Human-induced Degradation of Forests and Devegetation of Other Vegetation Types*, (2003), IPCC National Greenhouse Gas Inventories Programme.

Proposed Foothills Logging Operations, Wandella-Dampier Environmental Impact Statement, Forestry Commission of New South Wales, 1983.

Report of Inquiry into Owner Drivers and Forestry Contractors Volume 1: Report and Recommendations, Volume 2:

Industry Overviews, Industrial Relations Victoria, Department of Innovation, Industry and Regional Development (2005).

South East Fibre Exports PTY LTD (SEFE) Submission to the Department of Planning NSW, Proposed 5MW Base Load Biomass-Fired Power Station at Eden, NSW, Preliminary Environmental Assessment, 2009.

State Forests of NSW & Bureau of Resource Sciences (1998). *Eden Forest Resource and Management System Report, A report undertaken as part of the NSW Comprehensive Regional Assessments*, Resource and Conservation Division, Department of Urban Affairs and Planning, Sydney.

Stern N, *The Stern Review on the Economics of Climate Change, Emissions from the land-use change and forestry sector*, Cambridge University Press, 2006.

Passey R, MacGill I, and Outhred H, *The NSW Greenhouse Gas Reduction Scheme: An analysis of the NGAC Registry for the 2003, 2004 and 2005 Compliance Periods*, Centre for Energy and Environmental Markets discussion paper, 2007.

Toyota LandCruiser, February 28, (2003) Article from The Australian
< <http://www.theaustralian.news.com.au/story/0,20867,6048912-13232,00.html> >.

Legislation and Policy cited

Amendments to the Lacey Act from H.R.2419 2008 (US), Sec. 8204, *The Lacey Act*, Chapter 53 of Title 16, United States Code.

2002 Bega Valley Local Environment Plan.

Chinese Australian Migratory Bird Agreement Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment (Canberra, 20 October 1986) Entry into force: 1 September 1988 *Australia Treaty Series 1988* No. 22.

Civil Liability Act 2002 (NSW).

Constitution Act 1902 (NSW).

Corporations Act 2001 (Cth).

Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests *The Montréal Process* Third Edition, December 2007.

Draft Climate Change Bill: Consultation Document 2007, UK Department for Environment, Food and Rural Affairs, London.

Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Environment Protection and Administration Act 1979 (NSW).

ESFM plan for Eden Region (2005) , Forests NSW, Sydney.

Forestry and National Park Estate Act 1998 (NSW).

Heads of Agreement on Commonwealth and State Responsibilities for the Environment 1997, Council of Australian Governments, November 1997, Matters of National Environmental Significance: Attachment 1 Part II (8).

Integrated Forestry Operations Approvals: Southern and Eden Regions.

Intergovernmental Agreement on the Environment 1992.

Japanese Australian Migratory Bird Agreement Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment (Tokyo, 6 February 1974)
Entry into force: 30 April 1981 *Australia Treaty Series 1981* No 6.

Kyoto Protocol to the United Nations Framework Convention on Climate Change.

National Environment Protection Council (New South Wales) Act 1995 (NSW), Schedule 1. InterGovernmental Agreement on the Environment 1992.

Owner Drivers and Forestry Contractors Act 2005 (Vic).

Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Cth).

Protection Of the Environment Operations Act 1997 (NSW).

Renewable Energy (Electricity) Act 2000 (Cth).

Renewable Energy Electricity Regulations 2001 (Cth).

State Environmental Planning Policy (Major Development) 2005(SEPP 20).

State Environmental Planning Policy No 71-Coastal Protection, Lower South Coast Regional Environmental Plan (No 2).

The Rio Declaration, *Convention on Biological Diversity*, Rio de Janeiro, 5 June 1992, *Australian Treaty Series 1993* No 32; entry into force for Australia: 29 December 1993.

Threatened Species Conservation Act 1995 (NSW).

The United Nations Framework Convention on Climate Change (UNFCC).

Greenhouse Gas Emission Calculating References

2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2: Energy; Volume 4: Agriculture, Forestry and Other Land Use; Volume 13: Harvested Wood Products.

Australian Department of Geoscience LandSat images,
< http://www-a.ga.gov.au/data_download/lsat7mosaic/landsat7_mosaic300.ecw >.

FAO ‘Energy conservation in the mechanical forest industries,’ Appendix V: Energy Consumption in Sawmilling, Plywood and Particleboard Manufacture, < <http://www.fao.org/docrep/T0269e/t0269e0d.htm> >.

Greenhouse Gas Emissions from Electricity Supplied in NSW - Workbook October 2000,
< http://www.industry.nsw.gov.au/energy/files/sustain_greenhouse_gas_emissions_workbook.pdf >

Local Government Air Quality Toolkit, Module 3: Guidance note—Small-scale sawmills.

National Greenhouse Accounts (NGA) Factors (2009), Australian Government Department of Climate Change.

National Greenhouse and Energy Reporting System Measurement; Technical Guidelines for the estimation of greenhouse gas emissions by facilities in Australia, June 2009.

The Land Use, Land-Use Change, and Forestry Guidance for GHG Project Accounting, The Greenhouse Gas Protocol,

World Resources Institute, 2006.

UK National Energy Foundation, < <http://www.nef.org.uk/greencompany/co2calculator.htm> >.

UNEP list of infos and calculation methodologies,

< <http://www.unep.fr/scp/lcinitiative/publications/training/lcmnavigator/files/links.doc> >.

DEFRA UK (government site),

< <http://actonco2.direct.gov.uk/actonco2/home.html> and <http://carboncalculator.direct.gov.uk/index.html> >.

The authors would like to thank all those who have contributed photos and information to this Report as well as those who have taken a strong stand against environmental harm and injustice of all forms and shown spirit in defence of the environment. BIOMF!