INQUIRY INTO MANAGEMENT OF PUBLIC LAND IN NEW SOUTH WALES

Organisation:

NSW Forest Products Association

Date received:

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The objective of the Forest Reform Agenda sought a balance between social, economic and environmental values. But the process denied the concept that forestry and conservation are, for the greater part, complimentary outcomes of forest management.

The science of forest assessments was only able to capture a snapshot of many values of some of the forests. It was unable to place those values into context, into any relevant ordering of dependancy or in any dynamic of ecology. In many senses it was merely a tool to substantiate an agenda for reservation as an absolute objective. Imperfect data, distorted manipulations of data and in some cases no data or no assessment at all has created unjustifable reservations, at the cost of timber resource.

In application, under further regulatory restrictions limiting access, resource values have been effectively denied and reduced to unsustainable outcomes, unsustainable for resource and for other forest values.

Social and economic values have been largely ignored, their assessments measuring the collateral damage of reservations, the cost of reservation to communities and adjustment packages to NSW.

The timber industry relies on government to determine yields and relies on the commitments of legislation, Forest Agreements and Wood Supply Agreements to deliver resource for viability of their business.

Particular issues and options to address the issues in each region are outlined. Recommendations to remedy the issues are included and specific recommendations to amend regulations are attached.

Sustainability and resilience of rural communities dependant on forest industries requires extension of Forest and Resource Supply Agreements with certainty, commitment and long term continuity.



2012

Inquiry into The Management of Public Land in NSW



Submission by THE NSW FOREST PRODUCTS ASSOCIATION

15 August 2012

The NSW Forest Products Association represents medium sized hardwood timber producers of NSW to the public, governments and government agencies on matters relating to the timber industry, sustainable forest management and utilization. We are pleased for the opportunity to make a submission to the Inquiry into the Management of Public Land in NSW, particularly with respect to State Forests and the various tenures of reserved forests.

OUR MESSAGE

We grow trees to produce timber and other forest products, We manage forests to look after all the environment, habitat, biodiversity, water catchments, landscapes; We have done this since early settlement and we can now get the benefits of carbon sequestration and reduced energy consumption. And we have international accreditation for sustainable forest management.

Right now, and for the future

We need to grow more trees We need to manage more forests We need to improve forest health We need to manage conservation outcomes We need to store more carbon

The greatest constraint upon forest industries in NSW is the lack of confidence that governments may deal fairly with integrity and honesty, with the supply commitments that they have placed into legislation, contracted to industry, and with the faith on which industry has invested.

The Forest Industry is the only carbon-positive industry in the country; timber is the only carbon positive building product in the world. Simply from an environmental point of view, healthy growing forests are a carbon positive energy source while coal and steel production emits carbon.

Growing trees to capture carbon, harvesting that carbon, putting it into secure long term storage (as building products) and growing more trees to capture more carbon must rationally be a better approach than locking up forests as static, or even declining, stores under insecure environmental conditions or growing carbon just to lock up productive agricultural land.

Forests of NSW

- have been producing timber for over 150 years
- have retained the environmental values which are being claimed by Greens as under threat
- include very large areas of productive forest, which have now been reserved for the protection of their values. This fact defies any suggestion that they may have been deforested. Many of the forests have been grown from unforested land and land left derelict from agricultural failure.

Some of the best forests, now in reserves, have come from sustainable, multiple use forest management. Claims that sustainable forest management is the same as deforestation is nonsense.

BASIC STATISTICS

Forests in NSW cover 26.5 mill ha, 33% of the state.

State Forests NSW					
Native forest for supply of t	Native forest for supply of timber		1.9 mill ha		
Hardwood Plantations	net	49,6	90 ha		
Softwood Plantations	net	206,0	00 ha		
Retained native vegetation	within plan	tations	215,842 ha.		
Private Forests					
Private native forests		~ 8.5	mill ha		
Private HWD plantations		~ 42,000 ha			
Private SWD plantations		~100,000 ha			
Annual Harvest					
Area native forest SF harvested	26,077	ha	1.4%		
Area native forest SF thinned	4,772	ha			
Area private forest harvested	~30,00	0 ha	~0.35%		
NSW Annual Timber production					
SWD logs	SWD logs 2,199,235 m ³				
SWD pulp	1,223,6	1,223,691 tonnes			
HWD native forest logs	563,8	563,802 m ³			
HWD native forest pulp	488,3	488,353 tonnes			
HWD plantation logs	122,3	122,358 m ³			
HWD plantation pulp	83,5	83,553 tonnes			
Private HWD logs	Private HWD logs ~272,000 m ³				

Hardwood sawlog production (State Forests)

Forest Agreements by Regions and log grade

	Forests NSW			
	High Quality	Low Quality	Pulp (Hwd)	
Hardwood Resource	(m ³)	(m ³)	tonnes	
Upper North East	269.000	380 000	150 000	
Lower North East	205,000	500,000	130,000	
South Coast	48,000	40,000	10,000	
Southern Tablelands	28,000	15,000	350 000	
Eden	24,000	10,000	330,000	
Riverina	4,413	4,150	13,000	
Brigalow and South-Western	57,000			

ECONOMIC VALUE

NSW Timber Industry (1994): \$2 billion per year, 21,000 employees

Royalties earned by Forests NSW (2009/10): \$138,290,000

Hardwood forest industry

\$800 million per year, 3500 regional employment

Economic multiplier: 2 Community dependence: 12

OUTLINE

- 1. Context
- 2. Process of Forest Reservation
- 3. Forest Industry Reform Agenda
- 4. NSW Forest Agreements
- 5. Protection in Reserves
- 6. Sustainability
- 7. The Science of Forest Assessment
- 8. The Balance
- 9. Plantations
- 10. Conclusions and Recommendations

Coolah Tops The North Coast Brigalow Belt South South Western Cypress Lower Hunter Reservations River Red Gum and Woodland Forests

Attachment 1The Integrated Forestry Operations ApprovalsVery Specific Amendments proposed for IFOAs

Attachment 2 The Protection of the Environment Operations Regulation

1. Context

Hardwood forests cover 26.5 million hectares or 33 per cent of NSW. The NSW Labor Government reserved 1.78 million hectares of State Forest during its reign from 1995 to 2011.

State Forest now covers 2.1 million ha of native forest and hardwood plantations.

1.38 million ha is available for timber production,448,000 ha is reserved and305,000 ha is managed for conservation outcomes.

National Parks (and similar tenures) cover 6.7 million ha.

Timber royalties paid to the NSW government in 2009-10 were \$138 million. National Parks employ about 2,700 people and <u>cost</u> \$392 million (2009/10) per year, or \$58.50 per ha per year, to administer.

The forest industry of NSW used to earn \$2 billion a year and employ 21,000 people through the supply chain.

Hardwood mills in NSW now generate over \$800 million per year and create employment for about 3,500 people, all in country towns. Over 70% of the industry's value is returned to the towns. The industry's economic multiplier is about two and the community dependence factor is up to twelve.

Forests NSW harvests timber from a mere 1.38 million hectares of regrowth hardwood forest, but only 628,000 ha of hardwood forest is actually available for harvest due to Integrated Forestry Operations Approvals – the regulations that limit harvesting operations.

TIMBER DEMAND

The timber market underpins production for the building industry and infrastructure among other uses. Hardwood timber products are now used (since the forest industry restructure and policies driving value added processing) for applications for which there are no substitutes, and for which plantation grown hardwoods are generally unsatisfactory.

Australia imports \$2 billion of timber and forest products each year. Australia imported \$405 million of sawn timber in 2009.

NSW imported \$177 million of sawn timber in 2009-2010 (ABARE 2010).

By 2020 we will be 8.1 million m³ of timber behind housing demand, that means a shortfall of 22,000 ha of plantations for sawn timber (David Thompson, 2010).

Without the resource commitments from government and without an attractive investment climate for plantation, industry and market development, imports will increase (including from unsustainable and illegal sources) and housing demand will be stifled.

2. THE PROCESS OF FOREST RESERVATION

The National Forest Policy Statement of 1992 came about following more than a decade of forest protests and obstruction of harvesting operations. That brought forest management throughout Australia into a process of forest assessments and Regional Forest Agreements. In NSW, under the Carr Labor government, a Forest Industry Reform Agenda was undertaken: Comprehensive Regional Assessments led to NSW Forestry Agreements to create a balance between environmental, social and economic criteria.

But that did not stop the protests. Police intervention on worksites was ineffective and obstruction of operations was legitimised by government acquiescence. In every case protests were dealt with by avoiding particular areas or issues by moving operations elsewhere: until there was nowhere else to go!

In every region protests were followed by imposition of deferral of particular areas or as a moratorium on areas while assessments were conducted. Deferred areas and moratoriums were simply areas claimed by Greens as having some undefined conservation value. Inevitably areas left for forestry were limited in extent and resource quality, imposing severe economic impact and creating less sustainable management as desperation for supply increased. Planning, approval and licensing requirements for harvesting operations were procrastinated to exacerbate access restrictions.

Two stages of moratoriums existed in the Brigalow as the Cypress industry was brought to its knees. In Red Gum licensing of areas was procrastinated and denied by the Department of Environment and Climate Change in their endeavours to comply with Green demands and ultimately left no areas available for supply.

In every case forest industries were held at ransom to comply with the agenda, to agree with assessments and to comply with the forest agreement outcomes.

In every case Greens refused to accept any balance in the process or the outcomes. The agenda remains the absolute reservation of every conceivable conservation value, regardless of cost. That agenda continues to disrupt forest management as protests are again escalating in attempts to further restrict access to areas set aside for timber production in legislated Forest Agreements. The NSW government continues to acquiesce to forest protests.

THE COST OF FOREST RESERVATION

In 1994 State Forests of NSW managed 3.4 million ha of hardwood and cypress forests, selling 1.26 million m3 of hardwood and cypress sawlogs. From revenue of \$122 million, a profit of \$27.6 million and a return on equity of 4.9% was reported and a dividend of \$17.5 million paid to NSW.

In 1994 the NSW hardwood and cypress industry employed 3,579 people and an additional 6,471 people in further processing.

Different sources of data are difficult to reconcile comparisons over time since 1994, however the overall impacts are generally clear.

In 2011 Forests NSW managed 2.1 million ha of native forest, selling 630,000 m3 of hardwood and cypress sawlogs. From a revenue of \$327 million, a profit of \$127 million and a return on equity of 3% was reported and a dividend of \$14 million paid to NSW. In 2008 and 2009 the dividend to NSW totalled only \$1 million and returns on equity were 1.06% and -1.25%.

Employment is now estimated at a total of less than 6,000 people.

In the period 1995 to 2011, 1.78 million ha of forest was converted to a reserved tenure (national park, nature reserve, conservation area or other tenure). In 2010, 6.7 million ha of national park tenures cost \$392 million to administer, that is \$58.50 per ha.

So the impact of additional reservation of 1.78 million ha of forest since 1995 costs NSW \$104 million per year to administer. The loss of income to NSW is not so clear except that dividends from Forests NSW to the NSW government and the return on equity have reduced substantially.

The financial performance of Forests NSW represents approximately one twentieth of the regional economic value of forest industries. That is, the decline of regional economies in timber communities since reservation of forests is extremely severe. It is of little surprise that the NSW government declined to measure the industry's economic performance following Forest Agreements and the consequential structural adjustments which could have been easily benchmarked against the comprehensive analysis completed in 1994 (Margules).

As a very broad estimate of the impact of forest reservations from 1995 to 2011:

Cost of assessments and adjustments	\$500,000 million
Additional cost of administration	\$150 million per year
Loss of regional income	\$3 billion per year
Loss of rural jobs	4,000 including forest management, contracting,
	milling and further processing
Additional cost of imported timber	\$80 million per year
An accurate assessment of the economic impact	of forest industries in NSW is well overdue.

THE POLITICS OF FOREST RESERVATION

The reservation of Coolah Tops occurred immediately following the 1995 election. No assessments of forest values or socio-economic impacts were considered.

The reservations resulting from Forest Assessments of 1998 immediately preceded the 1999 election. Southern reservations were determined immediately after the election.

The reservation of North Coast Old Growth Icons in 2003 was announced 2 weeks prior to the 2003 election. No assessments of forest values or socio-economic impacts were considered. A Memorandum of Understanding with Boral Timber Limited acknowledged reservations in exchange

for extended and preferential wood supply arrangements. It also identified amendments to regulations to increase access to resource.

The reservation of Red Gum and South-Western Cypress forests was determined just prior to the 2011 election. At the time of the Red Gum assessment Minister for the Environment, Frank Sartor, declared the political need to attract Green preferences in city electorates as an objective for the reservations.

3. THE FOREST INDUSTRY REFORM AGENDA

The 1990's heralded a major hardwood timber industry restructure throughout Australia as governments sought a **balance between social, economic and environmental values** in the management of Australia's native forests.

In 1995 the NSW Labor government launched a Forest Industry Reform Agenda. Forest Assessments were preceded by interim deferrals, moratoriums on particular areas and avoidance of "contentious areas". These areas were based on claims of potential conservation value without substantiation or validation. They became pre-emptive areas to justify for reservation during assessments. In a number of areas licensing requirements under the National Parks and Wildlife Act was qualified, withheld or procrastinated. Forest industries had no real option other than to accept the outcomes of assessments and Forest Agreements. The reform agenda included a structural adjustment package to build modern mills, a 20 year guarantee of timber supply and increased value-added processing.

The balance of social values was driven through participation of communities and socio-economic assessments. But those issues did not have any influence on the outcomes; they became a measurement of the cost of adjustment and generally were misrepresented and diluted into statewide or national values; usually tourism was promoted as a substitute value to communities. In the Brigalow the local communities were specifically requested to present an option to government – they did so (the BRUS option), it was well acknowledged but ultimately ignored.

Major legislation to deliver this agenda included:

FORESTS AND RESERVES REVOCATION ACT 1995 No 100 FORESTS AND FLORA RESERVES REVOCATION ACT 1996 No 36 FORESTRY REVOCATION AND NATIONAL PARK RESERVATION ACT 1996 No 131 THE FORESTRY AND NATIONAL PARKS ESTATE ACT 1998 NO 163 (UNE, LNE, EDEN) NATIONAL PARK ESTATE (SOUTHERN REGION RESERVATIONS) ACT 2000 No 103 NATIONAL PARK ESTATE (RESERVATIONS) ACT 2002 No 137 NATIONAL PARK ESTATE (RESERVATIONS) ACT 2003 No 24 BRIGALOW AND NANDEWAR COMMUNITY CONSERVATION AREA ACT 2005 No 56 NATIONAL PARK ESTATE (RESERVATIONS) ACT 2005 No 84 NATIONAL PARK ESTATE (LOWER HUNTER REGION RESERVATIONS) ACT 2010 No 22 NATIONAL PARK ESTATE (RIVERINA RED GUM RESERVATIONS) ACT 2010 No 22 NATIONAL PARK ESTATE (SOUTH-WESTERN CYPRESS RESERVATIONS) ACT 2010 New reserves created under these Acts 1995 included the following approximate areas of State Forest:

٠	The Coolah Tops National Park		14,055 ha	
٠	1996 forest revocations (Interim Assessment)	south coast	59,410 ha	
٠	1996 forest revocations (Interim Assessment)	North Coast	169,313 ha	
٠	1998 forest assessment reservations	Eden	58,000 ha	
		LNE	260,000 ha	
		UNE	151,000 ha	
٠	2000 forest assessment reservations - Souther	ern	223,000 ha	
٠	2002 Action for Environment statement - Nor	th East	61,279 ha	
٠	2003 reserved old growth icons UNE and LNE		104,000 ha	
	so called forest icons, old growth forest and b	biodiversity ho	otspots including major regrowth	
	forests and plantations at Queens Lake, Whia	n Whian and	the largest koala population on th	ie
	east coast at Pine Creek.			
٠	2005 South Coast		9,004 ha	
٠	2006 Lower Hunter		16,934 ha	
٠	2005 Brigalow assessment (Cypress forest - I	Pilliga).	352,000 ha of	
٠	2010 Red Gum assessment		102,000 ha	
٠	2010 South-western cypress assessment		47,000 ha	

The NSW Labor Government reserved 1.78 million hectares of State Forest during its reign from 1995 to 2011. State Forest now covers 2.1 million ha. of native forest and hardwood plantations. 1.38 million ha. is available for timber production, but only 628,000 ha of hardwood forest is actually available for harvest and that is diminished by 31% due to Integrated Forestry Operations Approvals – the regulations that limit harvesting operations

4. NSW FOREST AGREEMENTS

The Forestry and National Parks Estate Act legislates NSW Forest Agreements for the Upper North East and Lower North East, the Eden and Southern Regions. Other legislation provides an equivalent basis for the Brigalow/Nandewar Region, the Riverina Red Gum and Woodland Forests and the South-western Cypress Region.

Agreements were to provide certainty for industry, conservation and the community, and deliver on the Government's forest policy:

- to protect environmental values in a world class system of national parks and other reserves
- to encourage the creation of strong and competitive ecologically sustainable forest industries
- to manage all native forests in an ecologically sustainable way.

Resource security for forest industries in NSW, up to and beyond current agreements depends on:

- Confidence that government may satisfy its commitments without equivocation
- That plantation investment may be an attractive proposition and produce sawlog resource at an international scale of processing

- That processing investment may be attractive and viable at an international scale of operation
- That all products from sustainable forest management may be utilised for their best economic output.

Industry met its obligations to investment in value adding, job creation, training and skills development. BUT, for their partnership in Forest Agreements, governments refuse to acknowledge the shortfalls of supply, blissfully ignore their obligations and simply leave industry, investment and rural communities on the scrap heap.

It is the responsibility of the NSW government to determine the timber yield from state Forests and other crown timbered land. Industry relies on those determinations to substantiate business and investment. The hardwood timber industry of NSW has relied on delivery of Wood Supply Agreements to supply resource for processing.

The NSW government has consistently failed its obligations, and the forest agreement legislation, to supply resource.

5. PROTECTION IN RESERVES

Apart from the generality of having additional 1.78 million ha in reserve, there is a dearth of information about specific values that were already protected or were to have been protected. More importantly, there is no evidence at all that values previously protected within State Forests, and maintained through Ecologically Sustainable Forest Management Plans as required in legislation, may be better protected within reserves.

The AUDITOR-GENERAL'S REPORT, PERFORMANCE AUDIT, Managing Natural and Cultural Heritage in Parks and Reserves: National Parks and Wildlife Service (2004) audited the NSW National Parks and Wildlife Service as managers of the system of reserves. The report examined how well the Service meets its management responsibilities. The audit opinion was that the Service has yet to:

- clarify what constitutes success in reserve management
- develop an adequate information base to measure its success.

Consequently the Service cannot reliably determine how well it conserves and protects our natural and cultural heritage.

The report recommended the Service:

- establish specific objectives and priorities for reserve management
- implement a comprehensive system to measure and evaluate its results.

The Audit questions remain largely unanswered. There remains a large number of reserves created since 1995 that do not have management plans, do not have information on the values within those reserves and do not have objectives or priorities for management.

Information that was used during forest assessments to substantiate reservation of state forests has not generally been validated. Much of that information was theoretical modelling from pre-European settlement, theoretical modelling of habitat, surrogate attribution, old and variable sighting records, extrapolation of limited and site specific information, and a presumption of static ecological relationships.

For the balance there is very accurate information on the values within State Forests. Continuous, intensive survey and search for a large range of values is required by the Integrated Forest Operations Approvals and prescribed methodologies are set into those regulations.

There is also very accurate information on the legislated yield of timber, yet no attention is given to its reduction, the loss of jobs and the loss of economic value.

6. SUSTAINABILITY

Following the reservation of 1.78 million ha. of State Forest the remaining forest available for timber production (2.1 million ha), has been further restricted by regulation of operational matters (the Integrated Forestry Operations Approvals) leaving only 31% of the area accessible for timber production and that is subject to other tree and habitat retention occurring on a site specific scale. In effect the guaranteed production from 2.1 million ha of State Forests, that were set as the balance for economic and social values, has been diminished by 69% (1.45 million ha). That is the balance for 1.78 million ha set aside for conservation value, has been enhanced by a further area of about 1.5 million ha.

Specifically for the North Coast (the Upper North East and the Lower North East Forestry Regions), determined to produce 269,000 m3 per year of high quality large sawlogs from 1.3 million ha of state forest. The impact of Integrated Forestry Operational Approvals has reduced the productive area to 314,000 ha. Plantations have been heavily harvested to achieve current supply levels and small logs have been a greater part of the supply arrangements; that means that future resource has been brought forward. So the sustainability strategy of timber production for the future, the sustainability of the social and economic outcomes and the sustainability of the rural communities must be brought to account.

While Forest Assessments and subsequent legislation for Forest Agreements determined yield to come from areas to be available for timber production, Integrated Forestry Operations Approvals have limited that area to less than a third. Clearly the outcome is unsustainable. To meet the supply commitments of legislated Forest Agreements more forest area has to be made available and/or restrictive regulations have to be eased.

7. THE SCIENCE OF FOREST ASSESSMENT

Conservation Value.

Nationally Agreed Criteria for the Establishment of a Comprehensive, Adequate and Representative Reserve System for Forests in Australia, (JANIS), 1997 formed an essential part of the Forest Agreement processes as a guide for the establishment of a Comprehensive, Adequate and Representative reserve system within Forest Agreement processes. Criteria are identified for biodiversity, old growth and wilderness. Application of criteria were to be applied in a national bioregional framework, which reflects the environmental determinants for broad patterns in landscape, ecosystem and species diversity. Important elements with respect to NSW Forest Assessments were:

FLEXIBILITY

Flexibility in the application of reserve criteria is needed in consideration of differing regional circumstances to ensure that the CAR reserve system delivers optimal nature conservation outcomes as well as acceptable social and economic outcomes.

ECONOMIC AND SOCIAL CONSIDERATIONS

The analytical processes which integrate the application of the reserve criteria with social and economic considerations should be transparent. The principle of least cost should be used and, where different configurations of reserves can be identified as meeting the criteria, the option which imposes the least cost on the community should be adopted. The economic and social costs and benefits of alternative reserve options could include:

- the benefits accruing from non-timber uses of reserves;
- • the direct costs associated with the choice, implementation and management of a reserve system;
- the opportunity costs of existing forest uses;
- the costs associated with broader employment impacts and industry adjustment; and
- the cost of sustainable forest management options.

BIODIVERSITY CRITERIA

All elements of biodiversity should have the opportunity for expression but with particular emphasis on those components of biodiversity that are dependent on reservation for protection. The criteria for reservation of a forest ecosystem is related to how much remains relative to its initial distribution and its vulnerability to threatening processes. 15% of pre-European distribution of a biome is seen as a desirable objective with flexibility considerations applied according to regional circumstances.

Forest ecosystems that are most severely depleted should be protected to a greater extent. All remaining occurrences of rare and endangered forest ecosystems should be reserved or protected by other means as far as is practicable. Application should aim to maximise the area of high quality habitat for all known elements of biodiversity wherever practicable, but with particular reference to:

- the special needs of rare, vulnerable or endangered species;
- special groups of organisms, for example species with complex habitat requirements,
- or migratory or mobile species;
- areas of high species diversity, natural refugia for flora and fauna, and centres of
- endemism; and
- those species whose distributions and habitat requirements are not well correlated
- with any particular forest ecosystem.

Mapping of forest ecosystems at 1:100 000, or 1:250 000 is considered to be an appropriate scale for planning a reserve system.

Old-growth forest can have a high value for biodiversity and hence a substantial proportion of the remaining extent will be incorporated by applying the CAR criteria for biodiversity. It is recognised that old-growth, as part of an ecological succession, is not static and cannot be maintained indefinitely merely through the reservation of existing examples of that ageclass. 60% of the old-growth forest, across the geographic range of a forest ecosystem, should be protected for the protection of high quality habitat for species identified under the biodiversity criterion. Appropriate reserve design should note;

- protection of the largest and least fragmented areas of old-growth
- specific community needs for recreation and tourism.

High quality wilderness, being areas encompassing forested wilderness more than 8000 ha.

What has actually happened in NSW forest assessments has been:

- The application of reserve criteria aimed at delivering absolute, rather than optimal, conservation outcomes in meticulously specific detail, in a localised framework as specifically particularised patterns of landscape, ecosystem and species diversity.
- Economic and social considerations within assessments have been included as platitudes.
 - \circ $\:$ In coastal assessments community reference groups were ignored
 - In Brigalow communities were invited to participate and create an option for consideration; that was bluntly rejected in final considerations. As part of the Community Conservation Area (CCA) tenure, Community Conservation Advisory Councils have no role in any management of the CCA.
 - Red Gum communities were ignored throughout assessments, community considerations were relegated to city based Green representations and the decisions made prior to receipt of the social and economic assessment.
 - Economic and social costs of alternative options not considered:
 - benefits accruing from tourism as a non-timber uses of reserves, by comparison with tourism complimenting forest management, has been a total failure
 - the direct costs associated with establishment of the reserves was \$97 million as the Red Gum Adjustment package

- the direct costs associated with management of the reserves is \$58.50 per ha, that is \$6.3 million per year;
- the opportunity costs of reduction of forest industries of about \$50 million per year and the loss of about 400 jobs;
- the cost of sustainable forest management options which previously provided a royalty revenue of about \$3.5 million per year, almost entirely spent on sustainable forest management.

Government ideals of sustainable, resilient communities disappeared very quickly.

• Forest ecosystems, by forest type (Forestry Commission of NSW research Note no.17), provided a basis of mapping to a scale of 1:10,000 enabling resolution of areas to 0.5 ha. Forest types were subdivided on a theoretical basis of associations to create more than 100 different forest ecosystems to justify reservation whether depleted, vulnerable, functionally necessary or not. Inconsistent mapping of forest types on other than State Forest (or previous State Forest) was not verifiable on reserved land and created a strong bias for reservation targets. That is, distinct forest types within reserves were well reserved and those in State Forest (existing as an indistinguishable difference) required reservation. Over reservation of meticulously particularized forest types within the reserve system is common.

Forest assessments have been presumed to be static. In fact sustainable forest management is predicated on the need for management to ensure continuity and active forest management has been identified in the Brigalow /Nandewar and Red Gum assessments as key findings to maintain the health of those forest ecosystems. Eric Rolls, *A Million Wild Acres,* clearly identified transition of forest types and the highly dynamic nature of forest structure since early settlement in NSW. Early settlement and survey records also show the changed forest type and structure since early settlement.

Reservation is more likely to result in forest ecosystem change than active management to maintain healthy forest ecosystems.

- All old growth forest in NSW is protected by reserve or by regulation of the Integrated Forestry Operations Approval. In assessments, old growth forest was identified from aerial photography by canopy structural attributes. Interpretation was difficult, was generally done by inexperienced staff and lacked appropriate field verification processes: the outcome has been that identifications have subsequently been found to be incorrect, and consequent reservations have been unjustified.
- High quality wilderness has previously (during the 1980s) been identified and set aside in reserves. Areas much smaller than 8,000 ha (down to about 2,000 ha) have been identified as meeting the criteria.

In addition to the JANIS criteria in NSW species habitat, modeled and surrogate habitat, as recorded and as survey findings or evidence added to reservation criteria. Most of that information existed on State Forests because it had been conducted as part of routine management and specific species conservation management for many years and State Forests were readily accessible. It was also used in the assessments to target reservation objectives.

Integrated Forestry Operations Approvals

After forest assessments and consequent reservations, a balance between environmental, social and economic values was to have been recognised. However the areas set as resource for timber production became subject to further regulation for protection of environmental values in the conduct of sustainable forest management under the Integrated Forestry Operations Approvals.

So all the values protected in the reserves system are again protected within the forest determined for timber production through Environment Protection Licenses, Threatened Species Licenses and Fisheries Management Licenses.

Those regulations and licenses require further search, survey and identification of conservation values which further limit access for forest management through the application of Threatened Species prescriptions. Habitat, surrogacy and evidence rather than actual existence trigger license conditions and/or further exclusion zones. In cypress forests dead trees are protected.

In determining sustainable timber yields in the forest assessments landscape exclusions of areas such as riparian zones and steep land had been allowed for. Also allowed was an impact of 30% as a strike rate as other exclusions. In the outcome the forest area now accessible for timber production has been limited to about one third of the forest area determined for timber production.

Detail of amendments sought in Integrated Forestry Operations Approvals is attached as Appendix 1.

Overlaying all approvals and licenses is Threatened Species exclusions for Endangered Ecological Communities and Endangered Populations. Most of these are theoretically and complexly defined are unmapped and indistinguishable in the field. Sustainable forestry operations are not a threat to their existence.

Cultural Heritage

Aboriginal cultural heritage became the primary focus of heritage values. Early settlement heritage became irrelevant very quickly as it identified dynamic forest ecology as able to recover from very intensive disturbance very quickly. Whole town settlements, mining sites, failed agricultural activities, and abandoned dairy farms were quickly overgrown and became subject to reservation. As an extreme example, most of the Pilliga West forest grew from abandoned wheat farms. Cemeteries and individual memorial and grave sites have been lost as heritage through the benign neglect of reserve management.

Aboriginal culture was regarded much more importantly and significant aboriginal land was placed into tenure under cooperative management for environmental objectives. Land was vested in the Minister while awaiting reversion to aboriginal ownership, but in vesting it was effectively reserved. In the Red Gum decision 18,484 ha has been vested in the Minister until legislation is passed that will place the land into aboriginal ownership to be managed for environmental objectives. Other forest assessments (for example Eden in 1998 and Brigalow in 2005) have similarly reserved land and created adjustment programs for Aboriginal communities, but after a very long time, there is no evidence that any benefit to Aboriginal communities may ever occur. Forest industries actually had an extremely good record of providing work and business opportunities for Aboriginal communities.

<u>Tourism</u>

In every forest assessment it has been assumed that tourism within State Forest is zero, simply because the National Parks administration only collects data relevant to National Parks visitation. In every case the incidence of tourism and recreation has not increased from its pre-existing level within the State Forest. In some cases (Coolah Tops, Red Gum) local people claim that it has declined.

In every forest assessment it has been claimed that tourism may provide an economic replacement for the value of the timber industry. That has not occurred anywhere.

Representation of *choice modeling* to assess the value of tourism to city electorates merely expresses a whimsical value of administering forests under a reserve tenure. There is no valuation of actual payment as reserve that may replace the actual, economic loss to rural communities.

In that sense the reservation paradigm for the notional benefit of city communities is being paid for at the real cost of country people. That has been the outcome of the Red Gum decision. At no stage during community participation in forest assessments did any Green lobby representation appear; their appearance was restricted to forest protest/blockades, private meetings with the NRC and Sydney community meetings.

<u>Fire</u>

Fire is probably the most significant element in forest ecology. Effects can be as natural occurences, a traditional management tool by aboriginal people or a more recent tool to protect life and property. In this context it is grossly unreasonable to determine reservation criteria based on meticulously particularised forest types and subtypes. Many of the differences can be attributed to incidences of fire and will be subject to the same influences in the future.

The management of fire is also the greatest difference in the philosophical approaches under different tenures. Passive management within a reserve framework simply amounts to neglect of environmental values as much as personal property liabilities. Extraordinary bushfires that have occurred on a very large scale within National Parks show an alarming pattern of destruction in the past and more recently following reservation of State Forests. Deua, Morton and Pilliga are clear demonstrations that creating reserves has failed to protect environmental values.

It is now emerging that the largest and healthiest Koala population in NSW, assessed in the Pilliga to be somewhere between 15,000 and 22,000 animals (apparently there was a survey error in the forest assessment that contributed to the reservation criteria), and was subsequently subject to a severe wildfire incinerating 104,000 ha, is now only about 2,000 animals. In the same way the Port Stephens koala population has been decimated by wildfires under National Park management.

Despite numerous inquiries, findings and recommendations, the National Parks administration in NSW continues to obfuscate the need for hazard reduction by reporting fuel reduction activities that are either not done, are ineffective or are not strategically located. Fire suppression relies on waiting until fires are large on high danger days, on major helicopter response because access has been closed and a huge expense to NSW. By comparison suppression by State Forests is usually much faster when fires are first detected, extinguished quickly and cheaply, and the impact on environment, resource and community is minimal.

Actively managed forests provide access, thinned stands reduce fire hazard and utilisation of firewood reduces fuel loads. In high risk fire areas, where controlled burning is not always appropriate, grazing provides an effective tool for bushfire management., for example Red Gum forests and Highland country. However reserved forests in these areas deny grazing, create enormous fuel loads and close off access; so they will inevitably burn with disastrous outcomes as was seen in the Kosciusko-Canberra fires.

8. THE BALANCE ?

While the objective of the Forest Reform Agenda sought a **balance between social, economic and environmental values,** the process denied the concept that forestry and conservation are, for the greater part, complimentary outcomes of forest management. That great National Parks have been created from soundly managed forests cannot be denied. A consistent finding of forest assessments has been the need for management to protect environmental values through the protection of resource values. That ecologically sustainable forest management may be identified as a threatening process belies common sense; logically it has been and will always be a protective process.

In contrast reservation of forests creates a huge liability as a closed forest, generally unmanaged and subject to nature, most threatening as bushfire but more sublty as dynamic changes in forest ecology and structure. The greatest threat is that changes will be unnoticed, they may be natural outcomes but that denies the very rationale for reservation. Reservation for the protection of the existing forest ecology is an oxymoron.

The science of forest assessments was only able to capture a snapshot of many values of some of the forests. It was unable to place those values into context, into any relative ordering of dependancy or in any dynamic of ecology. In many senses it was merely a tool to substantiate an agenda for reservation as an absolute objective. In application, as multiple tools to achieve the same end, the resource values of forests have been effectively denied and reduced to unsustainable outcomes, unsustainable for resource and for other forest values.

Social and economic values have been largely ignored in forest assessments, their assessments simply measuring the collateral damage of reservations and, to some extent, measuring the cost of reservation and adjustment packages. The greatest burden has been the sustainability and resilience of many country towns to the economic stress that has been imposed by city based Green agendas and political preference deals.

That tourism may have some sort of replacement value, additional to the tourism that previously existed within State Forests has proven to be a failure (perhaps except for some notional value in city regions which does not pay the bills in country towns).

As a potential multiple use outcome for sustainable forest management, where economic timber production may provide income to support managed conservation outcomes, reservation of forests exists as a cost burden on NSW. That is conservation management has been economically denied and has become a welfare cost to NSW.

9. PLANTATIONS

Hardwood plantations are a significant component of supply commitments under NSW Forest Agreements. Currently they amount to 20% of sawlog supply. Plantations on the North Coast have been heavily utilised over the past 5 years to maintain supply commitments as native forest production has decreased.

Hardwood plantation forests on the North Coast amount to about 65,445 ha (Review of Forest Agreements, November 2010). But almost 30,000 ha of that is not available for harvest.

FNSW Annual Report 2009-10 identify more than 98% of hardwood plantations as less than 20 years old.

Alarmingly Forests NSW hardwood plantation afforestation has diminished to almost zero since 2004, yet reforestation at 2,160 ha in 2009 is the dominant activity to maintain the timber supply strategy. That strategy merely maintains the plantation area, replacing mature trees with seedlings. Virtually all hardwood plantations are now less than 20 years old. There has not been any increase in plantation area to meet current sawlog supply commitments or future demand.

There is no guarantee that plantation forests may be any more reliable for resource commitments than regrowth forests:

- APM plantation forests purchased in the 1980s, specifically to ensure supplies of timber for NSW, have been largely reserved in the Forest Assessments, along with plantations at Whian Whian, Goonengerry, Mebbin, Dorrigo, Tuggalo, Queens Lake, Myall River and Watagans.
- Plantations are not immune from government reservation and Green activists. The 1998 and 2003 forest legislation reserved more than 10,000 ha of good, productive sawlog plantations as "old growth icons".
- Only half of the plantation area existing on State Forest is available for harvest.
- Harvesting operations in plantations are frequently met with protests from Greens.

PLANTATIONS ARE NOT AN ANSWER !

Increased focus on hardwood plantation establishment was recognised in Forest Agreements as necessary for additional future timber supply. They are already part of the resource

commitments and are being used for supply, currently substituting regrowth forest supply to the maximum extent possible.

- Regrowth forest sawlog supply has fallen by 35% from 2000 to 2010;
- Hardwood plantation sawlog supply is 20% of total hardwood sawlogs;

On the North Coast the hardwood timber industry, and Forest Agreement dependence on plantations cannot be sustained at 20%; virtually all plantations are less than 20 years old. Hardwood plantations are:

- Inadequate to meet current demand or make up the gap
- \circ $\;$ Do not produce the full range of hardwood timber products
- \circ $\,$ Not being established to meet the demand after 2030 $\,$
- Not attractive for private investment
- Initially reliant on established industry for development of extended process and market development
- Are currently utilised to the maximum extent possible to meet current supply commitments of forest agreements

On the North Coast there are a lot of plantations of Flooded Gum (*E. grandis*) of seriously flawed wood quality (they were established primarily for pulpwood so they do not produce sawlogs to meet specifications) and now of other low quality species White Gum (*E. dunnii*) for which nobody knows processing technology, use or potential market (they were established to meet a government target of number of planted trees).

An evident shortfall of plantation resource will increase reliance on regrowth forests for the next 20 years to more than 95%.

The NSW government regularly seeks ways of selling plantation resources – then regrowth forests will be the only resource to meet Forest Agreement commitments.

Private plantations established under failed MIS schemes are currently of uncertain ownership and/or management intent; they may well be liquidated as pulpwood as the most economic strategy for the landowner. This is happening in other parts of Australia.

So plantations do not offer any new, additional or different resource context for forest industries. There is still no secure basis for investment in resource, processing or markets.

If environmental values are an objective of forest management, and plantations cannot produce those values, then it would be a much more desirable and financial strategy to manage native forests as multiple use for timber and environmental values than to invest in plantations solely for the production of timber.

Private forest resource

In NSW 8.5 million ha of private hardwood forests exist as small lot open market opportunities for production of sawlogs under very strict codes of practice. In NSW codes of practice to establish sustainability of these forests were created as regulation of the Native Vegetation Act in 2007.

On the North Coast of NSW private forests have been utilised over many years to supply sawlogs to the timber industry. All surveys indicate that supply levels are constant and operations comply with regulations that ensure sustainability.

<u>Private forests are not additional resource that may substitute supply failures of Forest</u> <u>Agreements.</u>

Private native forests have not in aggregate been managed or silviculturally treated for sustainable timber production, many exist as unmanaged regrowth from earlier agriculture, many are in a generally degraded state from a long history of selective harvesting. These forests potentially represent a very large resource. As native forests, producing complimentary environmental outcomes, an economic foundation to motivate landowners into managing for sustainability is needed: that may only come from sustainable timber production requiring, in some cases, intensive silvicultural treatment.

Implementation of regulated codes of practice has been an outstanding success with universal uptake by forest owners (not that they had much choice), a very high level of co-operative development and consequently good compliance, a welcome acceptance of education and training programs for owners and operators. The outcome has been an outstanding result for environmental sustainability in private forest management. All the valuable development work that has been done, and all the credibility that has been engendered with private forest owners, is now at risk under an extraordinary environmental lobby within government. The resources of timber from private forests will be closed down under the stated objectives of the Green lobby.

Green claims for reservation status on private forests will deny both the environmental and economic value of sustainable management of these forests, particularly the asset value to landowners and the investment that many have put into the growth of these forests. Opportunities to rebuild rural communities will rapidly disappear.

10. CONCLUSIONS AND RECOMMENDATIONS

The timber industry relies on government to determine yields and relies on the commitments of legislation, Forest Agreements and Wood Supply Agreements to deliver resource for processing, to substantiate investment and to ensure viable businesses in country towns.

The rationale and science of forest reservations that has occurred since 1995 is questionable and needs to be reviewed. The issues are different in each region and for each piece of legislation. The following sections detail the issues in each region. In general:

- Reservation and restrictions on access have diminshed forest yield to less than sustainable levels.
- To achieve legislated yields and resource commitments as sustainable forest management will require additional resource and improved access to resource.

- Additional timber production will be necessary to make up timber market shortfall from sustainable domestic forest production in preference to imports from less sustainable forest management.
- Plantation resources have been seriously depleted, they are not currently available as alternate resource. Plantation investment is required to meet future timber demand.
- Conservation values within the reserve system are poorly known or understood, justification for reservation is questionable, rationale that reservation is appropriate for protection is questionable.
- Reserve administration is a direct cost to NSW which has replaced an income stream that previously supported ecologically sustainable forest management.
- Reserve management carries a huge liability as a largely umnmanaged threat of bushfire destruction of all forest values.
- Tourism as replacement income for forest dependant communities failed.
- The social and economic impacts have been greater than considered, or not considered at all, and have diminished community sustainability and resilience.

To address these issues there are a number of options available to restore the balance and meet the timber supply commitments of Forest Agreements:

- Return to forest management those reservations that were created in unassessed legislation:
 - NATIONAL PARK ESTATE (RESERVATIONS) ACT 2003 No 24
 - NATIONAL PARK ESTATE (LOWER HUNTER REGION RESERVATIONS) ACT 2006 No 90
- Return to forest management those areas of plantation and adjacent regrowth forests that were reserved, specifically:
 - Whian Whian,
 - Goonengerry,
 - Mebbin,
 - Dorrigo,
 - Tuggalo,
 - Queens Lake
 - Myall River and
 - Watagans
- Return to forest production those areas of forest that were purchased by NSW specifically for the purpose of timber production.
- Return to forest management those areas of regrowth forests necessary to substantiate legislated forest yields and maintain those yields as sustainable in the long term (including North Coast, Eden and Brigalow)
- Return to forest management the Red Gum forests to be managed as multiple use forests under a single administration for conservation values, for sustainable timber production and for Aboriginal community welfare. That will require a reassessment by a new independent authority (not the NRC again).

- Amend Integrated Forestry Operations Approvals to ensure at least 70% of harvesting areas are accessible for timber production. A description of IFOAs and recommendations for amendment are included as attachment 1.
- Acquire failed MIS plantation schemes and manage for sawlog production.
- Maintain plantation establishment at 5,000 ha per year for at least 10 years.
- Maintain plantation re-establishment as routine practice.

Opportunities to better manage conservation reserves are recognised as follows:

- Conduct a full assessment of values within the reserve system to the same resolution and detail as has been completed in forest assessments.
- Manage reserves to ensure maintenance of conservation values. Secure services of Forests NSW to conduct operations and ensure orderly marketing of products from those management activities.
- Manage reserves (and State Forests) to ensure protection from bushfires including access and response services. Engage Rural Fire Services to conduct hazard reduction independently ensuring adequacy, effectiveness and strategic management.
- Manage Endangered Ecological communities to ensure their long term existence, that is manage to sustain healthy growth, thin, harvest and ensure regeneration.

Tourism promotion, for both State Forests and reserves, may be directed to communities to assist their sustainability and resilience to government decisions.

Community values in country towns would be supported by investment incentives and resource surety for extended industry processing. Amendment to IFOAs is required to remove the exclusion of production of specific products and brands. Amendment to the Protection of the Environment Operations Act is required to remove the specific exclusion for the use of native forest biomaterial for the generation of electricity (detail is included as attachment 2).

Sustainability and resilience of rural communities dependent on forest industries requires extension of Forest and Resource Supply Agreements with certainty, commitment and long term continuity.

COOLAH TOPS

Coolah Tops was the first major area of forest to be reserved. The area is montane forest on basalt soils with long history of forest management including sleeper production dating back to 1940s. Reservation was to protect rare and endangered species under threat from logging operations, even though their existence had been maintained by forest management for a century. The forest was identified as the biggest magpie population in NSW. The conservation values for which the park was reserved remain a mystery. The park does not have a Management Plan.



The reliant mill (Morrisons) was closed, 22 jobs were lost from Coolah.

Economic value, the town and jobs were to have been supported with tourism that would result from the new Coolah Tops National Park. Six Jobs were to have been sustained in the NPWS administration of the park. The office in Coolah was transferred to Mudgee within 12 months, the jobs disappeared just as quickly. Now a Parks employee from Mudgee visits occasionally.

Access to the park is now diminished, tracks and trails are now closed and access to/from Merriwa is no longer possible. The local store and caravan park struggle to survive and the local population has dwindled. Park visitation has not increased, park visitors do not stop in the town, they bring their own fuel and food. They do not stay, they just pass through.

<u>THE NORTH COAST</u> <u>UPPER NORTH EAST, LOWER NORTH EAST</u>

In 1996 timber supply allocations on the North Coast were reduced by 30% as an initial step to bring yields back to what was believed to be a likely determination of sustainable yield. In Bulahdelah the reduction was 50%.

Comprehensive Forest Assessments were conducted in the public forests of the North Coast and Eden, from 1996 to 1998. During the assessments areas of state forest nominated by The National Parks and Wildlife Service and the Greens were set aside from forest management as Interim Deferred Forest Areas, until after assessments were completed.

The objective of the assessments was a balance between conservation and socio-economic values of forest management. The assessments addressed:

Measures of conservation value Economic value of sustainable timber production Social impacts of the options.

In 1998 forest assessments on the North Coast and Eden were completed, and presented to government as several options determining existing state forest for reservation, remaining state forest for timber production (determining timber yields from those forests) and employment and economic impacts of each option.

A structural adjustment package was developed to assist workers and businesses made redundant, businesses choosing to remain and develop value adding processes, management of new national parks, support programs for affected communities.

The North East Forest Agreements (5 March 1999) and subsequent reservations set aside 2.3 million ha of forest for new conservation reserve leaving 843,000 ha for harvesting of

269,000 m3 of high quality, large sawlogs per year.

http://www.environment.nsw.gov.au/resources/forestagreements/UNEagreement.pdf http://www.environment.nsw.gov.au/resources/forestagreements/LNEagreement.pdf

The timber resource described in both these agreements were to be subject to a review in 2006/7.

Twenty year wood supply agreements were provided to those companies with previous wood supply agreements for "quota quality" sawlogs, generally at 70% of previous volumes. The mills on the North Coast invested hundreds of millions of dollars in plant and equipment to meet the governments' forest policy and their commitments to a sustainable future.

Integrated Forestry Operations Approvals

These approvals regulate the conduct of harvesting operations. In the Upper and Lower North East regions more than 63% of the area for forestry is set aside as "exclusions" (the Integrated Forestry Operations Approvals) from the harvestable area, never to be logged. Only 314,000 ha is actually available. Sustainable timber supply was structured to achieve the determined levels until 2018. On the North Coast the determined yield of 269,000 m3 of high quality large sawlogs would reduce by 40% after 2018.

A significant number of the Interim Deferred Forest Areas were determined to be preferred for Timber Production. A significant area of high valued timber production forests (including plantations, including plantations of "off site" species, including softwood plantations) were determined as preferred for conservation. A significant number of forests which had been purchased by previous governments specifically for the purpose of supporting timber production were reserved.

The 2003 Review

Just prior to the 2003 State election, the NSW government determined that further reservation of state forest was necessary to protect old growth forest. The areas to be protected are identified on the following map.

This review brought forward the review due in 2006/7 set in the Forest Agreements.

The review of resources was based on an assessment by Professor Jerome Vanclay of 16 October 2002 and further consideration by government, and some amendments to IFOAs. It was determined that timber production could be sustained at previous levels, and with adjustments to Wood Supply Agreements could be extended until 2023. Despite the extended time the total yield of high quality large sawlogs remained the same.

Problematically (on the North Coast)

- it has been found that 2 versions of Professor Vanclay's report existed within government the second version missing a critical page that identifies qualification to the government's ability to achieve the yield.
- Changed specifications to produce 22% of volume as High Quality Small sawlogs, removes those trees from growth that was to have produced the yield in the future.
- While Wood Supply Agreements were extended to 2023, Forest Agreements still expire on 5 March 2019.

In 2003 the NSW government legislated 69,000 ha of production forests in the North East regions into reserves. As "old growth icons" these areas included plantations and high quality regrowth forests. Reservation of the particular forests was acknowledged by Boral Ltd and they, as the dominant timber processor, committed to investment into new hardwood plantations.

The NSW government also reviewed resources available on the North Coast (The Vanclay Report, Oct 2002), and confirmed the yield at 269,000 m3 of High Quality Large sawlogs, identified additional resources available, and extended the term of agreements to 2023. The Integrated Forestry Operations Approvals were amended to improve access and the commitment to timber supplies was renewed.





The NSW government's commitments to the industry in 2003 (Carr, Refshauge) noted (as annual volumes):

- Commitment to 269,000 m3 of high quality large sawlogs
- To add up to 20,000 m3 of additional timber from Forest Management Zone 8 areas
- To hold in reserve 15,000 m3 of timber that had been forfeited
- Add 5,000 m3 of timber per year from private forest purchases to the annual supply
- Amendments to the IFOA to increase access to buffer areas providing an additional 50,000 m3 of high quality sawlogs
- Investment by Boral into new hardwood plantations
- Extended transport subsidies to 2005
- Extended wood supply agreements by 5 years to 2023

On the commitments following this review mills on the North Coast again invested hundreds of millions of dollars in plant and equipment to meet the NSW government forest policy.

Following the 2003 Review, Forests NSW (and the State of NSW), varied the previous Wood Supply Agreements to:

- Reduce each high quality sawlog allocation by 2%
- Substitute 21.2% of allocation volumes of <u>high quality large sawlogs</u> with <u>high quality</u> <u>small sawlogs</u> (52,771 m3 per year)
- Create new agreements for additional supply of 12,000 m3 per year of high quality small sawlogs
- Create new agreements for supply of poles, piles and girders
- Create new agreements for supply of low quality sawlogs.

So, at this time, the commitments of supply to industry were 196,149 m3 per year of <u>high quality</u> <u>large sawlogs</u>: substantially (73%) less than the commitments of the NSW Forest Agreements, the Regional Forest Agreement and the 2003 Resource Review.

These arrangements were entered into with industry agreement. The reduced annual volume of high quality large sawlogs until 2018 (15 years) would have been sufficient to extend Wood Supply Agreements by 5 years to 2023. The chart below shows the changes in commitments and supply levels that have occurred since 1998.



The commitment to improve access by amending the Integrated Forestry Operations Approvals were, in effect, insignificant and have not produced an additional 50,000 m3. Additional supply from FMZ 8 areas have not been identified.

The Auditor General's Report "Sustaining Native Forest Operations" (April 2009) found:

- the 69,000 ha reserved in 2003 had become 107,000 ha.
- Contractual commitments for sawlog products in some regions had not been met.
- Forests NSW faces difficulties managing supply especially for large, high quality sawlogs.
- 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. This is especially the case for the Blackbutt species.
- Sawlog production over the last five years indicates that contractual commitments for sawlog products in some regions have not been met.
- At the time of NSW Forest Agreements 31% of State Forest area was unavailable for harvesting. Now the proportion is almost half of the area.

Review of Forest Agreements (November 2010)

This review reported extraordinary levels of reservation within State Forests (*that is exclusions*) and a general failure to produce the committed volumes of logs.

For the Upper North East and Lower North East Regions:

Total area State Forest	785,407	' ha	
Land available for harvest	315,175	5 ha	(40%)
Non harvest land under general management	109,304	l ha	
Reserved land non harvest	295,483	3 ha	
Planted forest on non-harvest land	29,996	5 ha	
Planted forest on land available for harvest	35,449) ha	(4.5%)
Timber production high quality large sawlogs 2008 -	2009	157	,234 m3
Timber production high quality small sawlogs 2008 -	2009	63	,845 m3

Since the commencement of the Forest Agreements production of high quality logs has declined by 57% in the Upper North East, an increase of only 7% in high quality small logs, an increase of about 15% in low quality sawlogs on the North Coast and a 50% increase in the production of pulpwood.

Now on the North Coast, 314,000 ha of regrowth hardwood forest is available for harvesting 269,000 m3 of high quality large sawlogs.

Declining production

Over the last 2 years production of high quality logs, large and small, has declined by 30% from the 1999-2000 level.

• Review of Agreements 2008-9

157,000 m3 high quality large sawlogs

64,000 m3 high quality small sawlogs

- FNSW Annual Report 2009-10
 - Production of sawlogs from native forests fallen by 10% since 2005

Sawlog production hardwood forests and plantations: 81% of allowable cut.

North Coast supply data for 2010-2011
Production high quality large and small sawlogs 175,000 m3: 78% of commitments

• All government sources, including the Auditor General of NSW confirms the availability of timber from the remaining State Forest.

<u>BUT</u> log supplies are restrained to about 70% of the industry's entitlements and needs. Mills are slowing down and jobs are being shed at an alarming rate. Supply shortfalls highlight an alarming decline of Blackbutt forests and plantation forests are being harvested well before their maturity.

Forests NSW "North Coast Timber Supply Strategy" 2009 Update shows

Note volumes are the total of both HQ large and HQ small sawlogs

- a reduction of 20% necessary since 2003 to achieve sustainable yield
- a reduction of 40% necessary in 2023 to achieve sustainable yield
- Blackbutt species as 24% of the resource



• Blackbutt species as 35% of the yield – overcut by 23,000 m3 per year.

In 2010 – 11 Forests NSW, in the Upper and Lower North East Regions, was only able to produce a total of 172,150 m3 of both large and small high quality logs, 78% of committed Wood Supply Agreement volumes, less than 50% of commitments of Forest Agreements.

If the plantation resource modeled for supply from 2013 to 2023 is depleted and the even flow sustainable yield form native forest was overstated in the 2023 review, then the reduction to occur in 2023 will be substantially greater than 40%. There can be no doubt that the Blackbutt resource will be exhausted well before 2023. Both of these propositions are unacceptable to industry and communities on the North Coast.

The timber industry relies on government to determine yields and relies on the commitments of legislation, Forest Agreements and Wood Supply Agreements to deliver resource for processing. Excessive reservation of productive forest, on questionable conservation values (plantations, old growth forests, theoretically modeled habitat) and extra-ordinary restriction through regulations (IFOAs) have brought the **balance between social, economic and environmental values** into question.

Long term sustainability of forest resources of the North Coast can be achieved by:

- Return of reserved plantation forests to production; •
- Return of reserved forests that were acquired for timber production to that objective; •
- Return of reserved high quality regrowth forests to production; •
- Return of Lower Hunter reserves that are not now required for development MOUs. •
- Amendment of excessively restrictive conditions of IFOAs; •
- Active management and thinning of reserved forests for conservation and fire ٠ protection;
- Acquisition of MIS plantation schemes, establishment of new plantations; •
- Extension of forest and resource supply agreements; ٠
- Investment incentives and resource surety for extended industry processing (biofuel, • electricity).

<u>EDEN</u>

The forests of the Eden forest management area are subject to a number of management agreements. The 1999 NSW Eden Forest Agreement provided for a minimum of 25,000 m3 of quota quality sawlog for 5 years and 24,000m3 for the remaining 15 years of the 20 year agreement. The resources for this period are identified from the Multi-aged forest in the region.

The agreements also provided for up to 20,000m3 pa of salvage (non quota quality logs) to be sourced from the allocation of pulp logs under the agreement with Harris Daishowa Australia (now SEFE) of 345,000 tonnes pa.

Beyond the 20 year supply period a long term sustained yield up to year 2040 of approximately 26000m3 pa drawn from fire regrowth and forests from harvesting was predicted.



With just over 6 years of the agreement remaining, as part of business planning, industry is concerned that resources meet the allocations of the Wood Supply commitments. The greatest short term risk is that of the current resource not being sufficient to meet commitments until 2018, and that probability of that not becoming obvious until very close to 2018. More recent assessments identify a reducing volume of resource post 2018 and the changing nature of that resource.

Within the multi aged forest there is resource still available as a first cut in half of any one compartment. Given that a cut in the other half of the compartment cannot occur within 5 years of the first cut, it is essential that all first cuts in multi aged forests are completed during the balance of 2012 and during 2013 so that the balance of the compartments can contribute to resource prior to the end of 2018.

It is likely that a significant part of the pre 1970s regrowth resource (fire regrowth), currently notionally allocated to be cut post 2018 will actually be "brought forward" to pre 2018 to replace multi aged yield deficits. This resource is of inferior quality and may not meet specifications.

The first 3 years of the current post 2018 resource estimates include a proportion of pre 1970s resource as large sawlogs. The actual availability is likely to be less than predicted as pre 1970s regrowth is "brought forward" to meet pre 2018 commitments.

Within the pre 1970s regrowth it is desirable that all initial cuts are also completed during the balance of 2012 and during 2013 to maximise the availability of this resource to be "brought forward" from post 2018 should there be a deficiency in the multi aged forest yields against those predicted.

Within the multi aged forest there is also some resource remaining in "slivers." These areas were not harvested for a variety of reasons during the initial cuts. It is unclear that these resources may be harvested under the conditions of the IFOA. On the assumption that harvesting may be allowable, it is then unclear what sawlog volume is either accessible, feasible or economically viable to harvest from these areas. The reasons that these "slivers" were not harvested in the past are various but the circumstances will need to have changed for the areas to be viable to harvest in the near future.

Across all resource types, site qualities and harvesting difficulties it is important that, over the next 6 years, there be an orderly harvesting of all strata pro rata to the total resource remaining.

Since the commencement of the Wood Supply Agreements in 1999, the harvesting agreement has been such that as a fully integrated operation Forests NSW engage SEFE as a Principal contractor and SEFE employ sub-contractors for the harvesting operations including responsibility for access roading.

Forest Assessments and Forest Agreements of 1998 noted a sawlog resource beyond 2018 as approximately 26,000 m3 per year. Current assessments indicate that to be substantially less.



The sustainable sawlog resource in the period 2019 – 2038 is approximately 18000 - 19000 m3 (with sawlog defined down to 25 cm SED) and with up to 50% as small sawlog. This is not a viable volume for a processing facility and there is an urgent need to identify other resource to maintain a viable sawlog industry post 2018.



The technology to process a resource of mostly small sawlogs will require substantial investment and business plans for the transition from the current resource to the post 1970s regrowth resource post 2018 need to be commenced now. It is most unlikely that a new industry reliant on a smaller volume of smaller sawlogs may develop and operate for 20 years before a growth expansion occurs.

It is most unlikely that a new investor might rely on the NSW government's assurances that such a resource may actually be made available.

For the continuation of the current forest industry in Eden it is essential that resource be brought into the region to sustain industry until the regrowth resource is of sufficient quantity, size and quality to establish a new industry based on the new resource. Resources may be brought into Eden from the South Coast, the Southern Tablelands and Eastern Victoria.



THE BRIGALOW BELT SOUTH THE BRIGALOW AND NANDEWAR REGIONS

Following the pattern of forest protests, blockades of operations, delays in planning and approval of harvesting operations the NSW government determined to conduct a forest assessment and impose moratorium restriction while that was done. The moratorium was based on Green claims without substantiation or validation. Eventually procrastination on harvesting approvals drove milling businesses to desperation.

In 2005 the NSW government concluded a forest assessment of the Brigalow Belt South Bioregion, the Brigalow and Nandewar Regions, including the cypress forests of the Pilliga. As an integral part of that process local communities were actively encouraged to participate and present an option to government. They did that, the BRUS option, it and it was summarily rejected by government.

The forests involved in this region, and the primary timber resource, is of Cypress (*Callitris glauca*) regrown from the 1880's, 1930's and 1950's. They followed periods of extensive agricultural clearing throughout this region, which subsequently died out during drought. Much of the Pilliga forest regrew from abandoned wheat farms. Growth of cypress in this climate is extremely slow. The forests had a scattering of ironbark regrowth from previous sleeper cutting operations.



The assessment of environmental values was based on more conjecture than science, modeling of pre-European habitat which had been removed many decades ago and replaced by managing weed cypress regrowth into valuable trees. That is silvicultural treatment and sustainable forestry practices.

The outcome of the assessment was to create a new form of reserve tenure, "Community Conservation Area", a substantial reduction of timber volumes, reservation of 350,000 ha of state forest and a package of assistance for businesses and workers made redundant and a program of investment assistance for business choosing to remain and invest in value adding technology.

Ironbark and hardwood operations were virtually closed. Specifically the use of timber for the production of "insultimber", a brand of electric fence droppers, was excluded.

The determined yield for the NSW government's decision (55,000 m3 per year) was well beyond the resource capability (44,000 m3 per year) and ultimately industry adjustment was extended to the South Western Cypress region to prop up a sustainable outcome.

Subsequent development of the Integrated Forestry Operations Approval diminished access to resource to the extent that less than half of the assessed volume is now available, log size and quality has dwindled to below economic viability.
A primary strategy that became evident in the Integrated Forestry Operations Approval was that the firewood industry which collected dead wood, residues from harvesting operations, remnants of previous sleeper operations was to be replaced with a total supply from green residues from the heads of the few hardwood and ironbark sawlogs that were allowed to be harvested.

This forest assessment identified the need for active forest management, including in reserved forests, and created a program of thinning in cypress forests, supporting 15 jobs for displaced timber workers. Other programs to employ displaced timber workers were not significantly taken up or in the National Parks and Wildlife Service generally failed at induction training.



The outcome has been an unmitigated disaster for the communities of Baradine and Gwabegar. Jobs and businesses have been lost, the towns virtually closed. Yet the National Parks Service has spent millions building a new office/information centre, but has not managed to attract a single extra tourist to the area. Administration of the park is now a cost to NSW of approximately \$16 million per year.

The thinning program only operated in remaining State Forest, and has now closed with a further loss of 15 jobs. The remnant hardwood logging was unable to obtain sufficient supply and has had to make up volume from other coastal regions. The green firewood strategy has failed to perform to any extent at all, the dry firewood industry closes at the end of 2012.

In less than a year of the NSW government's decision for these forests a bushfire covering more than 100,000 ha of these forests incinerated all in its path and wiped out all the forest, environmental value, fauna and flora that had been grown and protected by Forests NSW and the industry for 100 years.



Now only one cypress sawmilling company survives in the region and it is under extreme resource pressure and may well restructure this year. Firewood operations will close unless some amendments are made.

Fire has destroyed a major part of the "Community Conservation Area" and all of its values. There has been no fire management in this area since reservation, there has been no thinning in the reserved forest. There is no evidence anywhere that the values in the remaining forest have changed at all. Feral animals (goats, pigs and poultry) are still allowed to roam freely throughout the area.

Jobs have been lost, businesses closed and towns in virtual collapse. More than \$60 million per year in economic value to the region has been lost. \$16 million per year has been added to the cost of (non) management of these forests.

The Brigalow and Nandewar forests need to be returned to active management, managed for the protection of the environment and economic production.

THE SOUTH WESTERN CYPRESS FORESTS

The Brigalow Assessment of 2005 necessitated flow on industry adjustment into the South Western Cypress forests. From that outcome industry adjustment operations at Narrandera and Condobolin secured Wood Supply Agreements and invested into value adding processes and developed a strong and secure business, including strong export market developments.

Subsequently the NSW government conducted a South Western Cypress forest assessment finding that resource to be sustainable and opportunities for growth of the business through recommendations for small log and thinning operations were endorsed. Timber supplies in the region were confirmed for the period of Wood Supply Agreements.

The consequential Integrated Forestry Operations Approval, signed June 2011 after the assessments had confirmed the timber yield, has had some significant impacts on resource access effectively reducing volume available and denying utilisation of small logs from thinning operations. General issues in the IFOA affecting supplies relate to

- the area of supply;
- timber recovered from leasehold activities in the Western Division;
- small log harvesting and utilisation

Specifically tree retention and protection requirements, as below, have had a serious limitation on access of harvesting equipment in forest harvesting operations for cypress sawlogs.

Hollow and large trees (dead or alive, greater than 81 cm diameter) are to be reserved as Environmentally Significant Areas and require a 20 m exclusion zone around them

The trees include live and dead, hollow or just large, old stumps (greater than 1.3 m in height) and rung bark trees from early agricultural activities including land clearing. Cypress forests that are now being harvested have simply grown up around these old relics.

Harvesting operations have lost an estimated 30% of production capacity and significant access while trying to avoid these exclusion zones. Forwarder tracks are now so limited that the low pressure impact technology is negated by consequent overuse of very few tracks as multiple extraction runs.



There is no justification for the exclusion of cypress harvesting with the technology of harvesting equipment from these zones. Any requirement for protection of Threatened Species is covered in other parts of the regulations.

Protection of Dead Trees

In effect, any dead tree (or long stump), of any size or condition, of any species, which is disturbed or damaged in a cypress harvesting operation is deemed a breach of the IFOA.

Retention of all dead trees would seriously diminish requirements to retain other trees in a cypress operation.

Close examination of the adjacent picture reveals a significant number of dead trees throughout this forest.



Habitat protection dominated by dead trees would be a rather perverse outcome, hopefully to be avoided.

Survival of the South Western Cypress forest industry depends entirely on the amendment of the restrictive and perverse conditions discussed above.

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THE LOWER HUNTER DEVELOPMENT RESERVATIONS

In September 2004, the NSW government announced the development of a state Regional Planning Framework and a series of regional strategies, including the Lower Hunter as a priority. On 4 November 2005 the draft Lower Hunter Regional Strategy was released. The Minister for Planning entered into negotiations with a number of major landowners seeking to increase the development potential for their land in exchange for dedication of lands with significant conservation values.

In October 2006 agreements were entered into with four landowners to implement a land offset scheme for the Lower Hunter Strategy and Environmental Offsets Agreement. The agreements were executed as memorandums of understanding between the landowners and the NSW government. The MoUs were dated 16 October 2006. On the 17 October 2006 the Department of Environment and Conservation released the draft Lower Hunter Regional Conservation Plan and the Department of Planning released the final version of the Lower Hunter Regional Strategy.

Hardie Holdings Pty Ltd, one of the landowners, had acquired and at the time owned properties, in the region generally adjacent to State Forest and National Park.

To also contribute to the environmental outcomes of the Lower Hunter Strategy the NATIONAL PARK ESTATE (LOWER HUNTER REGION RESERVATIONS) ACT 2006 No 90, on 21 November 2006, reserved 16,934 ha of state forest and crown timber lands in the region. The areas were reserved without assessment of any conservation values, or economic and social values, simply to meet an area reservation target for the Lower Hunter Strategy development proposals.

In August 2009 the Land and Environment Court of NSW ruled concept plan approvals for two of the proposed developments void and quashed those plans. None of the developments in the MoUs have proceeded. The forest reservations have persisted.

There is no reason that the reservation of these forests was ever justified or may still be required!

THE RIVER RED GUMS AND WOODLAND FORESTS

Some relevant characteristics of red gum forests are described below:

The ecology of Red Gum forests is clearly very closely related to the water regimes. Flooding and drought events are a clear pattern of history. The NRC report identifies the river flow patterns now are much the same as they were back around the turn of the century. But what has changed significantly is the management of that water:

- from storage structures from 1936 through to the \$57 million scheme currently under construction
- for irrigated agriculture and general use
- for South Australian water supply
- for Melbourne urban supplies "the pipe"
- for the Lower Murray National Park (only ever existed since damming stopped flow through the lakes and flushed the mouth)
- for environmental management (wetland birds)
- for forest watering as the last possible use if any available (rainfall rejection or overflow)

The "Choke" at Mathoura (the Cadell Fault) naturally limits the water that can flow down through Echuca and consequently backs up to create overflow through Millewa to the Edwards River. In a similar manner after rain or snow melt, rivers from Victoria can block the flow down the Murray and also cause flooding in NSW (and in Barmah in Vic). Water management since the 1930s has changed the natural flooding patterns that result from these conditions.

The historical research by David Joss shows that the Red Gum forests of the Millewa – Deniliquin – Perricoota - Barham forests have only existed since early settlement. They were not there in 1848. They exist now in an agricultural landscape and changed fire regimes. It is a good postulation that the forests remain there, in this environment of intensive management, simply because the area is subject to severe flooding, usually during the season when cropping would otherwise have occurred.

Until the 2010 decision all the Red Gum forests were managed by Forest NSW, had earned international accreditation for Ramsar listing and all the values within those forests were created by sound, professional forest management. The NRC recommendations for active forest management are what has been done since the forests were created.

Red Gum forests typically exist as a structure with several age classes and as a mosaic (patchiness) of several age classes. Larger trees have deeper root systems which access deeper levels of the water table, younger trees have shallow root systems using more of the surface water.

So in drought the water table recedes: larger trees survive, younger trees die – in the last drought we saw a lot of this effect in the early 2000s resulting in denser (unthinned) regrowth as a tangled mess of dead and suffering trees, biodiversity is severely reduced – thinning these stands reduced demand for water and assisted



the selected better trees to maintain healthy growth. Perricoota has some amazing examples of how this worked and identified substantial growth of thinned stands during severe drought conditions. Vic Eddy managed this issue on Yanga and Avon stations on an economic basis by thinning to produce sawlogs and firewood (residue). He also managed the water regimes with what little water was available to most effectively promote growth of the retained trees – that is thin first and then water (slowly).

<u>BUT</u>

When the drought becomes severe the water table recedes beyond the reach of large tree root systems and the large trees start to die back – they too need to be thinned to reduce the demand for water. During extended drought usually short rain events occur at some stage creating surface water which is rapidly consumed by the surface root system of smaller trees. This effect happened in the later 2000s creating stands (in Millewa) with large dead and dying trees surrounded by vigorous thickets of young trees. Management of these conditions requires removal of the dead and dying trees and (again) thinning of the regrowth. Thinning is essential to balance water demand for tree growth with water availability through periods of drought.



<u>NOW</u>

The floods have created a major regeneration event which is creating a dense new crop in every opening through the forest. The new crop requires very early thinning to prevent dense stands of small trees which will severely suffer in the next drought and/or create water stress that will kill large trees if the next drought is extended. Healthy Red Gum forests would prefer that flood events occur 3 to 5 years out of every ten!

Regeneration of Red Gum occurs in canopy gaps (that let the light in), in disturbed soil (creating a seed bed, following fire creates a better seed bed, reduction of herb and ground vegetation removes competition for seedling development) with high soil moisture - following a flooding event is best to provide strong establishment, red gum seedlings after floods usually beat the weed growth. Red Gum regrowth in these conditions is the veritable hairs on the cats back.

Thinning of regrowth at very early stages is essential to promote growth of well spaced trees. Subsequent thinning is essential to select trees to grow on for whatever stand structure and/or characteristics are needed. Spacing of the final crop is essential for growth of timber AND for the creation of roosting habitat of wetland birds – this is how Forests NSW deliberately created the wetland bird areas of Millewa and Moira State Forests over several cutting/thinning cycles. Historical anecdote suggests that this sort of management was fundamental to the



establishment of Red Gum forests from what was at the time of settlement extensive marshes and impenetrable scrub.

Treatments for release of regeneration, and treatments to create regeneration events, can be managed by different patterns of thinning at different ages. Frequently 2 or 3 age classes are grown together as a mosaic (natural patches) and/or stand structures. Ultimately stands of Red Gums reach a mature structure that requires final cropping and a restart of regeneration – that is done by Australian Group Selection where a small area of forest is opened with a gap of diameter about twice the height of surrounding trees that provides good light for regeneration and establishment of seedlings. Gapping is most effective when followed by a flood within 2 or 3 years.

The importance of thinning:

- to create biodiversity within an otherwise single species mass of regrowth.
- as silvicultural management (forest growth) is above
- the means of creating stand structure for environmental management (bird habitat)
- balances water demand with water availability to maintain forest health throughout drought. Habitat trees also die in drought.
- for fire hazard reduction is above
- for access is important for fire protection.
- produces a commercial product (firewood) that provides income for forest management which then delivers all of the above.

Reservation prevents all of this!

<u>Fire</u>

Red Gum forests are extremely sensitive to death in bushfires, fires are usually intense. The 2008 fire at Moira took only a few hours to destroy 800 ha.

Ground fuel in summer is very dry (low humidity during spring/summer) and dead trees in unthinned forest create a major fuel hazard above ground. Sedimentation in floods bury a lot of fuel below ground level; fires smoulder and spread below ground.

So controlled burning for hazard reduction is very risky and there are a number of recent efforts at controlled burning (Top Island, Browns Camp) which have ended in disaster (fire management may have been hopeless but that just added to the disaster). Thinning removes the dead trees and dry fuel. Grazing is also an effective hazard reduction. Both thinning and grazing provide access through an otherwise tangled mess of scrub.







<u>Weeds</u>

There is a dwarf cherry shrub that invades disturbed openings in the forest as a weed and takes over openings before floods can establish regeneration. – It is a threatened species! Cherry also suppresses growth of shrubs and herbs. The herb layers are usually of introduced grass species, capable of rapid growth in spring, therefore adding to the fire hazard.

The Mistletoe bird likes Red Gum forests, infesting favourite trees and killing them. Only severely infested trees may be removed – by that time birds have established habitat and Mistletoe has spread to other trees; so when the heavily infested tree is removed the rest spreads rapidly and develops into a patch of dead trees.

THE REGIONAL FOREST ASSESSMENT OF THE RIVERINA BIOREGION

In 2010 The NSW government, The Natural Resources Commission, conducted a Regional forest Assessment of the Riverina Bioregion. The assessment was grounded on a series of postulations:

"River regulation, over-allocation of water resources and persistent drought are responsible for the observed decline in the river red gum forests and the industries and social systems they support."

"Climate change is a significant threat to biodiversity, ecosystem function and ecosystem resilience in the bioregion. Climate change is likely to cause landscape-scale changes, markedly different hydrological regimes and further transformation of ecosystems. The choice ahead is therefore whether to let this decline take its course, or act to manage the forests to create new more sustainable ecological, economic and social futures."

"... targeted and active management interventions across all tenures can achieve outcomes with a greater degree of control and certainty than naturally occurring processes or passive approaches. Ecological thinning may provide a useful tool to enhance conservation and/or production outcomes."

"The River Red Gum forests play a role in the regional economy and support a number of forest industries that are dependent on them for timber. Reduced quality of timber supply is already impacting on local forest industries. Timber growth rates have declined significantly as a result of reduced flood inundation and draughts. As a consequence, sustainable timber yields are expected to be reduced by 70%."

"The forests have important cultural significance particularly to their Traditional Owners."

"Non-Indigenous people also have strong cultural connection to the forests."

"A sustainable future for the region will depend on regional development focussed on less- water- dependent industries."





At the first visit of the NRC to the area, the first community meeting at Balranald, the first day that Professor Peter Kanowski (appointed to the NRC Panel for expert advice on forestry) had been within the Red Gum areas, it was announced that Red Gum forests required a yield reduction by at least 50% for sustainability before any consideration of climate change and future water availability.

At a later community meeting at Deniliquin, Pofessor Kanowski announced that his resource assessment would consider conservation objectives emerging from environmental lobby groups and influencing government.

Integrity of the assessment was immediately in jeopardy.

Extrapolation of climate change projections to rainfall, to river flows, to water availability, to forest flooding events, and therefore to the growth of red gum trees fell well short of science in the context of such a highly managed ecosystem. The predictions, water modeling and flood patterns have been proven to be patently wrong since the new parks were made; most of the forest has been under water for 18 months of the last 2 years.

Key findings of the report are:

Significant water reforms Active interventions to manage forests Trans-border national parks with coordinated adaptive management New funding models for forests. Engagement with local communities Maintaining human and social capital

The NRC has found it challenging to find a balance between some competing factors, such as:

- river regulation, over-allocation of water, drought and projected climate change are so
 profoundly changing the forests that the current forms of management and
 forestry harvesting are unsustainable [that is, other unsustainable management practices are
 accepted as the reason to make forestry unsustainable sound forest management is
 sustainable through drought and flood]
- major changes in flooding means both the rivers and the forests will continue to decline in health, yet the forests are so extensive and ecosystems in general are so dynamic that it is difficult to predict how the ecology of these floodplain ecosystems will change
- the forests support highly significant ecological values, yet the form of interventionist and adaptive management required to sustain these values may conflict with some stakeholders' expectations of conservation management [Red Gum forests have the least biodiversity of any forest system in Australia]
- while the future prosperity of the region is much more closely tied to the irrigation industry, the impact of a decline in the forestry industry will be concentrated and significant in some small communities [dilution of industry values over broad regions is not relevant]
- the support and involvement of the local community is crucial to the ongoing management of such extensive and popular forests, yet there are strongly held and conflicting views across the community on how the forests should be managed. *[not in the local communities]*

The NRC made the following recommendations. Those relevant to active forest management are presented here in the detail of the report.

Water reforms to save the river red gum forests

- 1: Undertake collaborative water reform
- 2: Complete water delivery infrastructure at Koondrook-Perricoota

Active management of river red gum forests in a water-scarce future

3: Implement forest management principles

The river red gum forests of the Riverina require active management. All forest managers on public land, including those managing forests as reserves, should implement the forest management principles

developed in the NRC's final assessment report. In particular those principles cover appropriate implementation of:

- ecological thinning
- grazing by domesticated animals
- fire management
- silviculture
- firewood collection.

4: Trial ecological thinning on a large-scale

Based on the NRC's review of the relevant scientific literature, observation of harvesting practice, and expert opinion, the NRC believes that silvicultural systems involving 'gapping' (such as Australian Group Selection) are appropriate for red gum forests provided they are implemented following appropriate prescriptions for:

- closer timing between any gapping and flooding to promote regeneration
- permanent retention of adequate numbers of habitat trees across the forested landscape
- retention of appropriate amounts of coarse woody debris
- $\ensuremath{\bullet}$ constraints on the proximate use of gapping and selective harvesting
- the intensity of gapping (gap size, distribution and frequency)
- monitoring to inform adaptive management.

5: Codify forest management operations

Even with significant water reforms, the long-term decline in timber quality and growth rates, and increases in environmental management costs look set to continue. The river systems of the southern Murray-Darling Basin are not likely to be fully restored to pre-river regulation flood regimes. It is unlikely to be commercially viable for a public trading enterprise, which is intended to be profitable, to manage the multiple-use red gum forests.

A better institutional model is needed for red gum forests being managed to generate timber products in addition to providing conservation, recreational and cultural values. A governance and funding model must be developed to reflect the broad range of ecosystem services, values and products these forests can deliver.

Similarly, successful management of red gums as national parks requires interventionist and adaptive approaches to park management. Sustaining red gum ecosystem functions in wet refugia and corridors will require active management (including ecological thinning and the maintenance of existing and creation of new water delivery infrastructure). Addressing the local communities' concerns about ongoing access to the forests, recreational use within them, and bushfire management in a drying climate will require strong engagement of local communities in park management. Rebuilding sustainable local communities will require significant up front investment in new infrastructure and marketing to achieve the potential regional economic development opportunities from new national parks

- 6: Employ a diversity of management approaches
- 7: Implement transparent governance

Conservation outcomes

- 8: Prioritise additions to the National Reserve System
- 9: Establish trans-border iconic national parks
- 10: Implement an adaptive management strategy
- 11: Enhance ecological connectivity

A sustainable forestry industry

- 12: Find a new way to govern and fund multiple-use forests
- 13: Provide exit assistance and support the industry to adapt

Sustainable futures for local communities

- 14: Engage communities in managing forests
- 15: Empower Indigenous communities to manage some forests
- 16: Identify and fund regional development opportunities

THE OUTCOMES

The postulations and key findings of the report direct management requirements for this already intensively managed environment, most particularly water management. Following 12 years of drought the region has suffered two years of flood; not an unusual pattern in the history of the Murray. The true context of the recommendations are now:

- Water regimes since the assessment have proven the fallacies of the original postulations, and for water, the inaccurate assumptions concerning water flow and flooding patterns in the region. That leaves the basis of all other key findings as idealised motherhood. So the challenge of finding a balance is left as loosely based on incorrect ideas, unsubstantiated by the evidence of the last two years.
- Water regimes are prominent in the NRC recommendations, justifiably so under the intensive water management of the region and necessitating intensive management of all water dependent values in the region.
- Active management of the forests is then necessary regardless of whether a water scarce future is relevant or not. Recommendations 3 (active forest management) and 4 address this issue in detail.
- Recommendation 4 refers to ecological thinning. Thinning is a critical management tool to balance water uptake with water availability, and to ensure forest health and growth. It is necessary to create regeneration and then to manage regeneration into a well stocked stand of trees spaced to ensure access to light and water. There can be no distinction between thinning for forestry, thinning for conservation or thinning for small or large trees; the criteria are for maintain a healthy, growing forest environment and protecting it from fire. Thinning is essential for fire hazard reduction in red gum forests where controlled burning is a great risk. Grazing is equally important for the same reason.
- As conservation outcomes recommendations 10 and 11 refer to adaptive management and ecological connectivity. Thinning is the management tool that serves both of these recommendations.
- A sustainable forest industry and sustainable communities are the basis of recommendations 12 to 16. However recommendation 13, to provide exit assistance, is an oxymoron for sustainability. The outcomes deny any implementation of these recommendations.

With this set of recommendations it is incomprehensible that recommendations 8 and 9 detail the reservation of 81% of the forest estate. None of that estate, under a regime of passive or non-management, is able to contribute to the other recommendations or the objective of balance of competing factors in the assessment. The fact is that the notion of competing factors is only in the view of a small group of "conservation" stakeholders which does not include any management, even conservation management. That all the other recommendations must come from 19% of the estate is particularly unbalanced.

So the actual outcome has been:

 water regimes have changed suddenly and dramatically, as they have done at times during the past 200 years, such that river regulation and allocations remains a mystery with which the Murray Darling Basin Authority cannot determine. So forests and the forms of management may be as sustainable as they always have been. A number of representations will substantiate that the Red Gum forests exist as a result of management which has created tree growth into forest structures. So the postulation that the current forms of management and forestry harvesting are unsustainable has no basis at all.

• major changes in flooding over the last 2 years is no different to that measured in historical records. That means both the rivers and the forests will continue to fluctuate in time and space in terms of health, growth and productivity. Yet the forests are so extensive and ecosystems in general are so dynamic that it is difficult to predict how the ecology of these floodplain ecosystems will change except that they will continue to do so as they have done over the past 200 years.



- the forests support highly significant ecological values, yet the form of interventionist and adaptive management required to sustain these values will continue to be necessary in such an intensively managed environment and landscape. Thinning activities have continued within State Forests. A large scale thinning trial within reserved forest has operated for the past 2 years but is yet to produce anything.
- while the future prosperity of the region is much more closely tied to the irrigation industry, the impact of cessation of most of the forestry industry has been extensive and has severely impacted in some small communities. Expansion of tourism as an opportunity to support communities in the wake of production industry exits has amounted to zero, despite massive expenditure (\$18 million for new park costs and administration).
- the support and involvement of the local community has dissipated as people have had to find other lives. There has been no new additional tourism at all, let alone the extraordinary amount necessary to replace the economic value of the timber industry. Communities are reporting losses of \$80 to \$100 million per year.

The overall perspective of all this is that tenure is irrelevant, except that none of it is possible within reserved tenure. That means that reservation actually prevents the healthy growth and protection of the forest. The NRC report identified the need for active management, thinning and water management, then recommended to reserve 81% of the forest and deny all the opportunities for management.

THE SOCIO-ECONOMIC IMPACT

The NRC's Final Assessment Report and their Recommendations Report were presented to the NSW government prior to completion and receipt of the Socio-economic Impact Assessment Report by Arche Consulting Pty Ltd.

Industry (the NSW Forest Products Association) reported to the NRC an economic value of the Red Gum industry of \$72 million per year and employment level of approximately 550. That estimate included the whole industry, quota sawlog, sleeper and residues from State Forests, leasehold, and private land. Industry could not separate the sources and grades of resource as separate sectors. The same assets and staff were used for processing. Any impact in any sector affected the other sectors with the same impact.

Based on sampling, Arche Consulting estimated the direct gross annual value of the river red gum timber industry, attributable to resource from State Forests, at about \$47.7 million with a net economic contribution to the NSW economy of about \$9.7 million per year. They identified 337 jobs dependant on the Sate Forest resources. They did not consider the integration of resources for processing in the industry. Arche estimates reconcile with industry understanding of about half of total resource from State Forests and a higher yield of low quality wood from Western Lands Leases.

	Sawlogs	Sleeper logs	Residues
Total Volume of throughput (m3)	8,500	19,500	7,350
Average Annual Revenue (AAR)	\$4,814,625	\$3,918,000	\$771,750
Annual Operating Costs (AOC)	\$3,989,295	\$3,322,000	\$607,515
Net Revenue (NR)	\$825,330	\$557,993	\$200,985
Net Revenue / Average Annual Revenue	17%	15%	17%
Net Revenue / Total Volume	\$97	\$29	\$17
Estimated Assets (not including quota)	\$7,250,000	\$4,750,000	\$1,175,000
Return on Assets (ROA)	9%	16%	18%
Reduction in throughput that results in a	95 m3	189 m3	220 tn
0% Return on Assets			

This data was based on a few selected samples; the correct volume of sawlogs was 23,450 m3 of quota quality plus a similar volume of low quality which would include sleeper logs. Residue volumes were approximately 50,000 tonnes per year. So this data underestimated the value of the whole of timber industry by about half. Industry estimated an annual revenue of about \$72 million per year, annual operating costs of about \$65 million of which 80% was returned to local communities.

Arche Consulting also noted:

- Costs would be associated with foregone producer surplus from current uses of the river red gum forests on public land including timber production, grazing and apiary and there may also be non-market costs associated with (to avoid) any reduction in the population of rural communities as a result of environmental protection measures.
- If conservation outcomes are reliant on additional environmental flows, then there would also be an opportunity cost of water (*lost from agriculture*).
- Conservation scenarios may also include benefits such as increases in visitation to the forests. (*None have occurred!*) Increases in environmental outcomes as a result of conservation scenarios would also have non-market benefits to the community. (*None have been identifiable!*)
- A more exhaustive quantification of costs and benefits was not conducted.

• The models highlight the sensitivity to change for all operations. The fixed nature of assets and the high level of experienced required for a quota type mill workforce raises issues for mill operators if either the total wood supply is reduced, or if there is an increase in the variability of wood volume or quality.

STRUCTURAL ADJUSTMENT PACKAGE

The NSW government provided a package of funding to implement its decision for Red Gum forests. The funding package was confirmed on 26 May 2010 by letter from Minister for Environment, Frank Sartor, to the NSW Parliament Legislative Assembly describing:

\$25 million for business exit assistance
\$21.5 million for worker redundancy
\$12 million for regional employment and development assistance
\$12 million for park establishment
\$9 million for additional park management costs
\$5.3 million for research and thinning program
\$5 million for regional industry development program
\$2 million for the establishment of Aboriginal Protected Areas and Parks.

\$5 million of the \$97 million package was not accounted for.

That is, industry was paid \$46.5 million to relinquish resource, employment development and industry assistance amounted to \$17 million, and \$28.3 million was funded back into parks (including aboriginal areas) administered by the Department of Environment, Climate Change and Water. \$5 million remains unaccounted.

In summation the Red Gum Timber Industry, paying the NSW government almost \$4 million per year as royalty (net economic contribution of \$9.7 million per year) and worth \$72 million per year as regional economic income, has cost \$97 million in government funding has been replaced with a reserve costing \$6.3 million per year (107,000 ha at \$58.50 per ha) to administer.

The remaining resource from the three State Forests available to industry amounts to a gross area of 28,636 ha but of that only 22,384 ha is suited for timber production and less that 70% of that will be accessible under the Integrated Forestry Operations Approvals. The remaining industry probably has a regional economic value of between \$20 million to \$25 million per year employing about 70 people attributable to State Forest with a total of about 120.

The losses are easy to estimate, the value of conservation benefits remain as an ethereal value of reservation without any specific knowledge of any conservation value improvement. There does not appear to be a Management Plan for any of the Red Gum National Parks.

Land to have been provided for the Aboriginal communities has been vested in the Minister for Environment and is restricted in activities equivalent to the reserved tenures.

While the assessment was primarily based within the region and effectively drew in local communities there was a noticeable absence of the Green lobby within the region and consultation processes. Their absence from these hearings in Deniliquin was just as noticeable. Representation of environmental groups in the NRC assessment only emerged in Sydney consultations. This was

simply another forest assessment to meet city based ethereal objectives for conservation at the expense of country towns and rural industries. The social and economic impacts of reservation of red gum forests remain as collateral damage.

The Red Gum assessment needs to be redone with credibility and with an objective of active, productive, management for all tenures. The NRC is not able to now provide an independent reassessment, a new government authority will need to be established to do this task. The industry may be returned, the communities re-established.

YANGA STATION

In 2005 the NSW government purchased Yanga Station 47,464 ha, near Balranald in south-west NSW, in order to reserve as National Park approximately 17,000 ha of Red Gum forest, and including 150 km of river frontage on the Murrumbidgee. The NSW government paid more than \$35 million to turn this property into National Park.

Up until 2005, the Red Gums on this property were managed on a sustainable basis for the production of sawlogs and firewood. Management and operations were supervised by a forester with over 40 years professional experience in both government and private forestry, all codes and regulations applying to this forest were complied with and protection requirements exceeded to ensure a healthy growing forest.

Bob Carr, then Premier of NSW, commended the owners and managers of this property for the excellent care of the forest, the Department of Environment openly expressed the excellent condition of the forest and the environmental values. Most of all, the trees were healthy and growing despite the prolonged drought.

The forest supported a local mill and many jobs in Balranald and the surrounding area. The timber provided employment on a sustainable basis and the livelihood of numerous families. The property paid rates to the Wakool Shire. Most businesses in Balranald had a dependency on Yanga and the people who were directly employed.

And the beautiful Red Gum forests were healthy and sustainable.

The forests there today are the outcome of sound management practices for sustainability and to grow the previously degraded forest into a healthy, sustainable sawlog resource and a valuable wetland forest environment.

There does not appear to be a Management Plan for Yanga National Park or for the Murrumbidgee Valley National Park, not even in preparation.

The NSW National Parks and Wildlife Service estimates that visitation to Yanga National Park is around 100 visitors per week. Local estimate is that it is less than 500 per year. The park was opened to visitors in May 2009, and the service has invested \$80,000 to promote the park in the 2009/10 financial year.

Reservation of Red Gum forests fails every test of rational management for conservation or production. Red Gum forests exist in an intensively managed landscape and critically depend on an intensively managed water regime. Reservation of the forests has cost millions in lost regional income, in jobs and in community welfare. It has cost millions to create the reserves and will continue to cost millions in park administration. Tourism has failed to create an alternative economy. Reservation has not, and cannot, produce a sustainable conservation outcome, because reservation operates in a paradigm of non-management or benign neglect.

Red Gum forests need to be placed back into a management regime for their survival. Ecologically sustainable management of that forest management would provide an economic basis for the conservation of red gum forest values, sustainable and resilient country towns.



ATTACHMENT 1

INTEGRATED FORESTRY OPERATIONS APPROVALS (IFOAs)

The terms of an IFOA prevail over any other document which may have inconsistent terms of compliance. IFOAs are comprehensive and detail every conceivable aspect of forestry operations.

IFOAs specify the timber yields that are to be produced from the region to which they apply. That clause (usually clause 5) of the regulation is consistently ignored. Compliance auditing does not address it, reviews of agreements and IFOAs conveniently ignore the existence of the clause.

IFOAs include very specific regulation of the planning, conduct and reporting of forestry operations. They include, in extraordinary detail, conditions relevant to Threatened Species Licensing, Fisheries Management Licensing and Environment Protection Licensing. Most of the licences address species specific and site specific conditions according to their regulations, not necessarily relevant to a particular harvesting site, the species actually existing at the site or any impact that harvesting operations may have at a site.

While some conditions of IFOAs provide a landscape context their focus is primarily at the immediate level of operations within a compartment or harvesting coupe. As such they exist as a regulatory tool for the purpose of monitoring, auditing and compliance activities of each aspect of any individual harvesting task. Compliance management is administered by the Environment Protection Authority and therefore focuses at a level of task compliance rather than any consideration of environmental outcomes or context.

A number of IFOA conditions, and their confusion within Threatened Species Licenses, relate to matters of commercial interest and administration. For example:

- Categorisation of timber products is a commercial matter between the forest grower and the markets for those products. It has nothing to do with environmental outcomes, sustainable forest management or compliance with codes of practice.
- Regulation of the yield of individual timber products without regard to the dependant production levels of those products, under sustainable yield calculations of only one of those products, has created the impossibility to manage activities to produce the volumes regulated by the IFOA. By example the sustainable yield of Red Gum high quality sawlogs is set at 4,413 m³ per year. The production of low quality sawlogs in those operations is approximately 4 times that, the production of residue volumes is approximately 8 times that. However the IFOA limits the production of residues to a level that is greatly exceeded on every conceivable scale it is impossible to comply with both products as prescribed in the IFOA.
- exclusion of sale of specific timber products, for example
 - conversion to charcoal,
 - for manufacturing or generation of electricity,
 - for western ironbark for producing insultimber (sawn fence droppers for use in electric fences)

are irrelevant to the conduct of forestry in the context of these regulations.

- methodology, consultation and reporting processes for conduct of sustainable yield studies are absolutely unnecessary detail that is well attended elsewhere as fundamental responsibility of Forests NSW. Accreditation of sustainable forest management and compliance procedures under those schemes is appropriate. There is no reason that it be befuddled in IFOA regulations.
- Additional and prescriptive reporting and administrative procedures for a raft of planning and management strategies, which exist within their own right under other regulation and/or policy are not necessary in IFOAs. For example:
 - A "pest animal management plan"
 - A "weed management plan"
 - A "grazing management plan"
 - A "burning operations management plan"
 - A "road and fire trail management plan"

with 5 yearly reviews including monitoring, assessment and reporting, and to give effect (whatever that may mean).

Their inclusion merely serves to transfer responsibility to Forests NSW, duplicate responsibility within the EPA and divert the issue to regulatory compliance rather than the issue itself.

- Felicitous detail of core business responsibilities of Forests NSW such as

annual planning to disperse operations over region and time

- Copy to DECCW
- Estimate kinds and quantities of timber products
- Indicate order of work
- Indicate season for proposed burning

(any plan departures to be reported in monthly advice)

- planning for each operation including
 - Site specific operational plan for forestry operations

Site specific operational plan for logging operations

- Type of silviculture
- Species of trees targeted
- Kinds of timber products

Site specific operational plan for burning operations

- <u>Monthly</u> advice of forestry operation undertaken for the year, and proposed to be undertaken next 2 months, including
 - detail of operations and approvals,
 - commencements,
 - completions,
 - areas (ha),
 - authorisations.
 - timber quantity estimates
 - threatened species of animals listed and with known habitat
 - threatened species of plant listed with forest name
 - Operations may only commence if included in the monthly advice (and 2 days have
 - elapsed) and not before the advised date (or with 2 days notice)

- ANNUAL REPORTS

Quantity and kind of timber product in detail Estimate of total and net operational area logged Location of logging operations Felicitous details of individual products location and area of burning, purpose of burning area of non commercial thinning area of grazing

- RECORDS (must be legible)
 - **Operations Register**
 - Compartment histories
 - Provide information and copies of records, keep records for set periods Assist DECCW to collect information for assessment or review of approval Public availability of specific documents

IFOAs, in themselves or within Threatened Species Licences, include extraordinary detail of planning process from searching of records, the planning management and methodology of survey, searching for features, targeted survey for species, map preparation, operational planning, processes of authorisation and reporting.

None of this addresses the regulated yield of forest products.

None of this adds to sustainable environmental or productive outcome of forest management. It has no place within these regulations.

With such complexity, compliance monitoring and enforcement is an overwhelming responsibility which has been largely removed from the operations and rests with the EPA. Unfortunately the EPA does not have basic skills, qualifications or experience of forest management and does not have experience with the environmental context of forestry operations. Consequently compliance auditing has degenerated into observance of minute detail of individual clauses of the IFOA rather than the environmental or production outcomes.

The Australian Forestry Standard, certified under the Program for Endorsement of Forest Certification, meets all the necessary requirements for forest regulation in NSW. There is no need to create such a complex over-riding regulation as the IFOA and duplicate an expensive compliance regime aimed more at diminishing outcomes rather than supporting sustainable management.

AFS certification should be deemed to satisfy large parts of the IFOA.

BASIC REQUIREMENTS OF FOREST OPERATIONS REGULATION

The primary considerations for the regulation of forestry operations, for the achievement of environmental and timber production outcomes are simply as below. Most, if not all, of these considerations are within schemes of sustainability accreditation and certification.

Forest operation planning and management Forest Operation Plan Reporting

Sustainability Yield regulation

Silviculture

Thinning Single tree selection and thinning Australian Group Selection Other systems as necessary

Regeneration and stocking

Protection of the environment

Protection of landscape features of environmental and cultural significance Habitat and biodiversity Minimising damage to retained trees and vegetation Drainage feature protection Fire management

Construction and maintenance of forest infrastructure Construction and maintenance of roads Log landings, portable mill sites and snig tracks

Conservation and Biodiversity

IFOAs through licencing under

The Threatened Species Act

The Fisheries Management Act

The Protection of the Environment Operations Act

PVPs for PNF through Biodiversity Certification

Requiring compliance with codes of practice including species specific prescriptions.

CONSERVATION AND BIODIVERSITY PROTECTION

Within IFOAs and mixed with Threatened Species Licence conditions, conservation and biodiversity protection is provided as:

1. GENERAL PROTECTION MEASURES

Rainforest and high conservation old growth forests Protection of drainage features and wetlands Riparian protection (*see EPL*) Protection of other features Habitat and Recruitment tree retention

2. THE THREATENED SPECIES LICENCE

This licence authorises the conduct of forestry operations within SFNSW estate within the Upper NorthEast Region, that are likely to result in:

- 1. Harm to a threatened species (being an animal) or protected fauna;
- 2. The picking of a threatened species (being a plant) or a protected native plant; or
- 3. Damage to the habitat of a threatened species.

This licence does not authorise the carrying out of an activity that is likely to:

1. Harm an endangered population or an endangered ecological community (as far as animals are

concerned);

2. Result in the picking of a plant that is part of an endangered population or endangered community;

- 3. Damage critical habitat; or
- 4. Damage to the habitat of an endangered population or endangered community.

This licence is issued subject to the licence holder complying with the conditions and requirements set out in the licence. A contravention of the terms of this licence makes the person carrying out the forestry operations liable for an offence under the National Parks and Wildlife Act 1974 for eg. harming a threatened species under Section 118A of the National Parks and Wildlife Act 1974.

Threatened species protection on State Forest is based on

- Specific prescriptions with respect to all of the above
- General exclusion of communities, species and habitat (theoretical and actual)
- Specific prescriptions with respect to specific forestry activities
- Specific prescriptions with respect to specific sites
- Identification of sites for prescriptions by any of:
 - records
 - survey for species and habitat
 - targeted search and survey for species
 - observation during operations.

The site specific application of the matrix of threatened species protection measures, with or without any broader landscape context, creates the complex and restrictive application of the IFOA regulations, severely limiting forestry activity in forests that were set aside specifically for

production. The Threatened Species Licences, interwoven in the IFOAs as a compliance tool, prevent any balanced approach to environmental protection in a landscape context.

Biodiversity Certification under the Threatened Species Act would provide a more efficient regulation than Threatened Species Licences issued under the Act.

Review of species specific prescriptions arising from the Threatened Species Licences is a daunting task. The prescriptions do not include consideration of threat by forestry operations, or any appropriate management opportunity for protection. However private native forestry operations are approved with Biodiversity Certification, based on regional codes of practice which include listed species specific conditions in a broader context and only where those species actually occur.

A number of species are better addressed in a landscape context rather than site specific prescriptions based on records, habitat or sightings of variable reliability. Prescriptions for large and territorial birds enable more broadly based protection measures. Such an approach is important for a number of other species, for example koalas, gliders, bats, wallabys and quolls. "Evidence" of these species is much more widely distributed than their actual existence, and "evidence" based exclusions far more extensive than appropriate. Protection of drainage and other features, retention of habitat, recruitment and feed trees, old growth forests and endangered ecological communities already provides a very high level of protection for many species which are not threatened by forestry operations.

IFOA MATTERS OF PROTECTION OF GENERAL LANDSCAPE FEATURES REQUIRING AMENDMENT

1. <u>ENDANGRED ECOLOGICAL COMMUNITIES, ENDANGERED POPULATIONS, VULNERABLE</u> <u>ECOLOGICAL COMMUNITIES</u>

In PNF operations landowners have an option to develop with the EPA an Ecological Harvesting Plan enabling harvesting with very specific prescriptions to protect the particular community or population.

Ecological Harvesting Plans for such circumstances in State Forests should be developed as a routine practice for each EEC, EP or VEC that may include timber resource.

2. RAINFOREST, HIGH CONSERVATION VALUE OLD GROWTH FOREST

These forests, as defined in the Broad Old Growth Mapping Project (CRAFTI) of the Comprehensive Regional Assessments, were reserved from forest management in the Forest Agreements. Subsequently harvesting of all mapped old growth forests was reserved or excluded in the 2003 forest decision and amendments.

Since that time, on the ground on a harvesting area basis, mapping standards have been found to be inaccurate.

On private property, under the PNF Codes, landowners have a right to have old growth and rainforest exclusion areas remapped at the time that they prepare their application for PVP for PNF approval. A protocol for remapping by the EPA exists and is well accepted by forest owners. Valuable forest resource is not lost simply because maps are incorrect.

http://www.environment.nsw.gov.au/resources/pnf/proldgrowth07370.pdf http://www.environment.nsw.gov.au/resources/pnf/prrainforest07371.pdf

It is proposed that the protocol for remapping rainforest and old growth forests be included within IFOAs when harvest planning is undertaken by Forests NSW.

3. PROTECTION OF DRAINAGE FEATURES AND WETLANDS

Definitions:

- "drainage depression" means a level to gently inclined shallow, open depression with a smoothly concave cross-section, rising to moderately inclined hill slopes;
- A mapped drainage depression is a drainage depression that lies between any two sections of a mapped drainage line or is a drainage depression that lies at the headwater or point of origin of a mapped drainage line.
- "drainage feature" means a drainage line or drainage depression;
- "drainage feature protection zone" means a drainage feature protection zone described as being a protection zone around a drainage line or mapped drainage depression);
- "drainage line" means a channel down which surface water naturally concentrates and flows and that exhibits either or both of the following features:
 - (a) evidence of active erosion or deposition (for example, gravel, pebble, rock, sand bed, scour hole and nick points),
 - (b) an incised channel of more than 30 centimetres in depth and having a defined bed and banks;
- "unmapped drainage depression" means a drainage depression that is not a mapped drainage depression;
- "unmapped drainage line" means a drainage line that is not a mapped drainage line, or line which does not appear on a 1:25 000 topographic map (as supplied by the Land Information Centre); ;
- "wetland" means any vegetated depression with a seasonal, permanent or intermittent water table at or slightly above the floor of the depression (but does not include a dam or tank), typically having a vegetation type that indicates a wetter micro-environment than the land surrounding it; (*PNF: and is* inundated cyclically, intermittently or permanently with water)

Commont requilations		ماسماسم	fastures
Current regulations	protecting	uramage	reatures

RIPARIAN	UN	E/LNE	Eden Southern Brigg		Brigalow	Riveriı	na	PNF			
PROTECTION	hard	soft		hard	soft	SW Cypress	Protection	Buffer	Exclusion	Buffer	
Unmapped		Not applicabl	e – defined by	incised chan	nel	5m	N/A	N/A		minimise disturbance	
1st order	5	5	10	5	5	10 m	20 m as	30 m as	5	10	
2 nd order	5	15	20	5	15	20 m	mapped	mapped	5	20	
3 rd order	5	25	30	5	25	30 m					
4 th order	5	45	50	5	45	40 m			5	30	
5 th order +						50 m					
Prescribed streams							Murray 20 m		20	15	
							Mbidgee 20 m				
Activities	prohibited	Felling into zone 6 trees per 200 m	prohibited Accidental - no removal	prohibited	Felling into zone 6 trees per 200 m	prohibited	prohibited	No AGS Retain 5H + 5R	Prohibited Accidental felling - cut off at bdy	30% BA removal Felling into zone 6 trees per 200 m	
Wetlands < 0.5 ha		10	10 10 10			20 m or tree line	at 150 mm				
0.5 - 2 ha		20	40		20	20	size		20 m		
> 2 ha & SEPP14		40		2	40						
Ridge & headwater for every 500 ha		2x - 1	40m on 2 nd ord x 80m on 3 rd o	n 2 nd order, or on 3 rd order					Tracking	permitted	

Current regulations for general tree retention

TREE RETENTION	Non regth	Regth		Non regth	Regth			
Habitat	10 per 2 ha	10 per 2 ha If not available all in the NHA	4, 8, 12 per 2 ha Regrowth zone very complex	10 per 2 ha	10 per 2 ha If not available all in the NHA	<u>WIBK</u> 0.75 m ² /ha around stump <u>Cypress</u>	2 per ha All >120 cm	10 per 2 ha where available
Recruitment	10 per 2 ha	1 for every habitat	4, 8, 12 per 2 ha	10 per 2 ha	1 for every habitat	6 Ig trees/na around stump <u>HWD</u> 5 H + 5R / ha around stump	2 per ha OR Or total of any 4 if not avail	1 for every habitat + make up to total of 20

Inquiry into the Management of Public Land in NSW Submission by the NSW Forest Products Association

<u>RIPARIAN PROTECTION</u> (DRAINAGE FEATURE PROTECTION ZONES)

This protection is directed to both soil and water protection and to general habitat protection. It is applied according to stream order (Strahler system) except in private native forests where 20 m exclusion zones apply to prescribed streams under other legislation.

Mapping of drainage features is unreliable. Definitions identifying

- evidence of active erosion or deposition, e.g. gravel, pebble, rock, sand bed, scour hole or nick point
- an incised channel more than 30 centimetres deep with clearly defined bed and banks
- a permanent flow

are preferred to deal with actual conditions. Other areas that may relate to drainage features (including depressions as distinct from wetlands) should be simply noted to minimise disturbance and exclude machinery from saturated soil.

Exclusion (hard buffers) as 5 m. on all streams provides adequate protection of stream channels, protects from erosion entering the stream bed and retains trees within those zones.

Additional protection (soft buffers) on 1st order streams is unwarranted. The catchment size and slope of such streams is the relevant issue and is rarely large enough at this order to warrant additional protection.

Additional protection as soft buffers on higher order streams may provide some soil and water protection (but that is most significantly achieved in the 5 m hard buffer). Soft buffers are therefore as general habitat protection; as such the zones excluding all harvesting and equipment access (excepting accidents) is excessive. In any event species specific exclusions and slope restrictions (including soil erosivity classes) overlay these riparian zones.

Soft buffers at 10m for 2nd and 3rd order streams, and 20 m for higher order streams is more than adequate as a general protection measure. There is no requirement to have an additional buffer on the 20 m exclusion applying to prescribed streams. Within those zones the conditions of private native forestry, allowing selective removal of 30% of the basal area, no AGS and minimal disturbance (directional falling out of the zone, walkover only) is appropriate.

A limit of the number of trees fallen within or into the zone (excluding trees fallen out of the zone) as existing at 6 trees per 200 m of boundary is reasonable.

It is proposed	that riparian zone	e protection fo	or all forest	agreement	regions be:

	Exclusion	Buffer
1st order	5 m	0

2 nd order	<mark>5 m</mark>	10 m
3 rd order	5 m	10 m
4 th order &	5 m	20 m
higher		
Prescribed	20 m	0
<mark>streams</mark>		

CURRENT

Exclusion zone 5 m. on all streams.

Buffer protection 10m for 2nd and 3rd order streams, 20 m for higher order streams

> Prescribed Streams 20 m exclusion No additional buffer



Within buffer zones access should be limited to

- areas not protected by other exclusion
- all rainforest species and all hollow bearing trees retained
- harvest of up to 30% of the existing basal area
- one snig track per ridge or spur to provide access
- directional falling out of buffer into net harvest area
- minimized disturbance by machinery (walk over)
- any furrows resulting from log removal are remediated
- tree heads are not snigged out of the buffer

IFOA conditions regarding the accidental falling of trees into exclusions is unreasonable and unnecessary. Remediation of any damage to the drainage feature (including possible removal of heads from the drainage feature) is all that is required.

Conditions regarding ongoing forest management (construction, maintenance of roads and crossings) need to be maintained as in existing regulations. Road and snig track drainage requirements need to be maintained.

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For Brigalow and South Western Cypress regions the geomorphology is significantly different to coastal and tablelands forests. Braided stream beds (usually dry) through sandy soils are the general issue to be addressed. Hard exclusions on every feature, as prescribed in the existing IFOA, is not justifiable. For simplicity the zoning as above may be applied in these regions but ameliorated such that all tablelands and western hardwoods and be retained within buffers.

Ridge and headwater exclusions provide no general protection of habitat that is not recognised as other exclusions. Distribution of harvesting operations throughout the landscape provides open catchment access for any transitory wildlife. These areas are necessary for operational management (roading and primary snig tracks); avoidance of them necessitates greater disturbance by road and track construction.

Habitat and recruitment tree retention levels provide all the general protection necessary.

Ridge and headwater exclusions should be omitted.

Wetland exclusion zones should be consistently applied across all regions as:

Wetland	Exclusion
< 0.5 ha	10
0.5 – 2 ha	20
> 2 ha & SEPP 14 areas	40

4. HABITAT AND RECRUITMENT TREE RETENTION

Retention of habitat trees in Eden depends on habitat site quality. That is an appropriate, if complex, approach – there should be no justification for reservation of habitat of low quality. Habitat quality is not well defined or identified; it is most readily determined as forest quality.

Retention of habitat trees in other regions is at a rather arbitrary flat rate of 10 trees per ha regardless of site quality or forest type. For particular species specific requirements that may occur in those forests other more specific tree retentions supercede the general retention rate.

It is proposed that habitat tree retention rates depend on site quality as 4, 7 and 10 trees per 2 ha of low, medium and high site quality respectively for the 4 Forest Agreement Regions and their particular IFOAs. Where trees are not available within the net harvesting area to meet requirements it is proposed that trees in close adjacent areas may be counted.

Habitat trees are described as:

- hollow-bearing trees selected from the trees with the largest dbhob
- must be live trees, not stags
- good crown development is not relevant or necessarily desirable
- minimal butt damage merely so that it will not easily fall over
- represent the range of hollow-bearing species that occur in the area.
- Preference should be given to selecting those species or trees which are most suitable for the threatened species known or likely to occur in the area, or retention for other reasons.
- Trees retained outside the net logging area must not be counted as hollow-bearing trees. <u>If there are insufficient habitat trees within the net harvest area to meet the</u> requirement then suitable habitat trees within 20 m of the net harvest area may be <u>counted.</u>
- Hollow-bearing trees must be scattered throughout the net logging area, or adjacent areas where counted.

Where sufficient habitat trees to meet the requirement are not available there is no point in retaining additional trees which are not suitable for habitat.

Retention of recruitment trees is a questionable practice on an assumption that they may become habitat at some time when the existing habitat trees expire: the life cycle of a habitat tree is probably much longer than a regrowth tree suitable for resource, 1:1 recruitment is unjustifiable.

The number of recruitment trees needing to be retained on the same site quality criteria as habitat trees is proposed as half the number of habitat trees, and may also include any additional habitat trees that may be available.

Recruitment trees, despite showing evidence of hollows may be valuable timber resource.

The criteria for recruitment trees should be that they will be required and do have characteristics that will be required for habitat during the next rotation, say 40 years. So recruitment trees should be defined as:

- being hollow-bearing trees selected from the trees with the largest dbhob
- showing potential for developing into hollow-bearing trees.
- good crown development is not relevant or necessarily desirable
- minimal butt damage
- should not be suppressed is not relevant or necessarily desirable
- Mature and late mature trees
- represent the range of species in the mature and late mature growth stages that occur in the area.

- Preference should be given to selecting those species or trees which are most suitable for the threatened species known or likely to occur in the area.
- Trees retained outside the net logging area must not be counted as recruitment trees.
 If there are insufficient recruitment trees within the net harvest area to meet the requirement then suitable recruitment trees within 20 m of the net harvest area may be counted.
- Recruitment trees must be scattered throughout the net logging area , or adjacent areas where counted.

Feed and other retained trees may be counted as habitat or recruitment trees. There should be no other reason to retain trees, not meeting habitat or recruitment tree characteristics, simply because insufficient numbers are actually available to meet the requirement.

5. NON REGROWTH AND REGROWTH ZONES

UNE, LNE, Eden, and Southern regions identify regrowth and non regrowth zones as identified by a map. The boundary between the zones is broad, the structures are not well defined and the boundary does not actually identify or distinguish actual stand structures in the field.

The zones are only relevant in defining the habitat and recruitment tree retention rates and becomes extremely complex in Eden where retention in the regrowth zone is also based on habitat quality and tree availability.

As described above the ability to meet habitat and recruitment tree retentions from closely adjacent to the net harvesting area, where access to buffers is limited or excluded, obviates any need to retain additional trees for habitat that may otherwise be suited for resource. Otherwise the outcome is that a significant number of reasonable quality regrowth (meeting sawlog specifications) trees are being retained, not meeting the purpose for which they are being retained, reducing timber yield and diminishing silvicultural management.

Non-regrowth and regrowth zones should be removed. Habitat and recruitment tree requirements as described above obviate any need to distinguish such zones.

6. Associated issues

<u>Six trees may be felled across any 200 metre length of boundary of certain exclusion zones</u>

This condition is included in regulations for the Upper North East, Lower North East and Southern Regions and also for private native forestry. It is just as relevant for, and should be included for other regions for the general habitat conditions and for most other exclusion zones.

The species specific application of the condition depends on the species specific prescriptions that may apply in each zone.

Boundary Marking

IFOA conditions require that boundaries of net harvesting areas be marked. Where boundaries are not marked operations must keep 50m from the boundary (where ever it may be) unless a GPS is used.

The condition is a nonsense. Compliance with an unknown boundary or some substituted idea of a boundary is impossible to determine. GPS identification is not always reliable fine resolution particularly when in harvesting or extraction machinery.

Treatment of buffer areas around drainage features as proposed above should ameliorate the possibility of transgressing boundaries.

These boundary marking conditions should be omitted.

VERY SPECIFIC AMENDMENTS PROPOSED FOR IFOAs

These amendments are proposed to deal urgently with matters that have created severe and inappropriate impacts on industry, preventing the performance of forest agreements. Protection of general landscape features requiring amendment as described above attend to the main issues with the Upper and Lower North East, Eden and Southern regions. The issues identified here are easily dealt with and without any impact on environmental conditions.

South Western Cypress

Particular matters within this IFOA have created significant negative impacts on resource for industry and amendments are necessary to restore balance.

- The contracted wood supply allocation is drawn from State Forests south of Gulargambone/Dubbo. That was the outcome of the Brigalow Decision and subsequent industry adjustment and market purchase of allocations. The area covered by the NRC Assessment Report is explicitly described as State Forests from Dubbo south to the Victorian border and west from Forbes and Cowra. This IFOA now prescribes the area as the whole of western NSW, creating a significant supply conflict with the Brigalow Decision. In effect volume available will now be limited as:
 - a. Haulage costs from forests in the north west of NSW renders them uneconomic as resource;
 - Resource was to be used to contribute to Brigalow allocations as identified in the 2005 Brigalow Decision (up to 8,000 m³/yr);
 - c. Resource from leasehold land is not included within assessments, is not part of the determined sustainable yield, and is not accredited in the Australian Forestry Standard.
- 2. In addition, resource utilised from timber recovered from leasehold activities in the Western Division is not within any sustainability determination and must be segregated from Certification Programs in the timber market. Due to low quality and haulage costs this is marginal resource which has been utilised primarily to maintain production levels and jobs in the mills.

If leasehold timber is to be accounted as part of the allocation it will most probably be uneconomic and left to be burnt as invasive native scrub. This is contrary to the outcome recommended by the NRC; to provide an incentive to manage cypress on leasehold lands. Total resource availability will be diminished, operations down-sized and development stifled.

3. As a component of routine harvesting, residue operations and thinning programs, and with assistance from the Brigalow Industry Development Assistance Fund, industry has developed small log harvesting, utilisation, timber products and markets. Utilisation of small logs and development of thinnings operations was endorsed by the South-Western Cypress Assessment.

Arbitrary and artificial limits placed on volumes of these logs by the IFOA have rendered utilisation of these products unviable.

4. Harvesting operations for cypress sawlogs in south western cypress forests are highly mechanised with very advanced technology incorporating very low pressure ground surface impacts and GPS control and machine management systems.

Clause 244 (and the chain of clauses leading to it) of the IFOA requires that all trees greater than 81 cm dbhob constitute a special landscape feature as an environmentally significant area requiring exclusion of 20 m around the tree. The very occasional large tree (hollow or not) amongst cypress regrowth consequently causes severe disruption to harvesting equipment and creates multiple disturbances around the tree and increased use of adjacent tracks. Those trees are not harvested in the cypress operations. Disturbance is much greater than otherwise would be caused by the harvesting machines in use.

Amendments are necessary to:

- remove leasehold operations from the scope of this IFOA;
- identify the determined allocations as coming from the sustainable forests of the south west; and
- remove the artificial cap on thinning and residue volumes.
- Qualify access within environmentally significant areas of special landscape features as occasional large trees as requiring minimal disturbance and low impact harvesting machinery.

<u>Clause 5 (1)</u>

Insert "This approval does not apply to the recovery of timber from operations on leasehold land."

<u>Clause 5 (2) (a)</u>

Insert after logging operations *"within the South-Western Cypress State Forests from Dubbo south to the Victorian border and west from Forbes and Cowra"*

<u>Clause 5 (2) (b)</u>

Delete "but no more than 1,500 m³ of such timber products in any one financial year"

<u>Clause 5 (2) (c)</u>

Delete *"up to 6,000 tonnes of"*

<u>Clause 244 (1) (g1)</u>

Insert after *"Low impact machinery may traverse this area, minimising disturbance, while harvesting cypress sawlogs."*

These amendments, and any consequential amendments, are critical to the ongoing security and development of the cypress industry, their export markets of high quality Australian White Cypress timber to Japan and China, and their employment levels in the towns and communities of the South West of NSW.

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RIVERINA RED GUM FORESTS

The IFOA describes forestry operations to which it applies (clause 5) as:

- in the Riverina State forests.
- High quality large logging operations in the Riverina State Forests (including the western land leases) [4,413 m³ per year]
- logging operations to produce low quality river red gum logs from above;
- logging operations for river red gum residue and residue logs from above [17,533 tonnes per year],
- Early thinning operations in the Riverina State forests (but not in the western land leases) for river red gum residue [30,000 tonnes reduing to 20,000 tonnes per year to 2013]
- Logging and early thinning operations in the western land leases for river red gum residue and residue logs [18,000 tonnes per year to 2013]

However residue produced from the logging operations described will be much greater than 17,533 tonnes per year. It is currently producing at a rate in excess of 35,000 tonne per year. Limitation to 17,533 tonnes per year will prevent the regulated yield of high quality large sawlogs.

Amendment is necessary to enable the yield of residue and residue logs at the rate that they inevitably occur.

<u>Clause 5.3 b</u> Delete all the words after "referred to in (2)"

Also, thinning operations in the Riverina State Forests and logging and early thinning operations in the western land leases for river red gum residue and residue logs are producing low quality river red gum sawlogs. These logs have not been part of the assessment and are additional to sustainable yield determinations. They need to be distinguished clearly and not confused with the logs (high quality and low quality sawlogs) produced from the high quality large logging operations described as clauses 5.2 and 5.3 a and b.

Sale of sawlogs from early thinning and western land lease operations for residue and residue logs should be additional to the yields determined and supplied under agreements form the <u>"high quality</u> large logging operations in the Riverina State Forests"

With respect to prescribed reviews of residue operations in western lands leases (clause 27. 5) the review set for the period 2020 to 2025 (part b) must be settled by 31 December 2012 (clause 27.6). That is a nonsense and requires correction

The distinction of types of operations as above, and that any one compartment may need to be harvested by more than one type of operation, necessitates a subdivision of compartments by overlay of "tracts" of land as described in clauses 12 and 13, such that:

13.3. if more than one kind of forestry operation to which this approval applies is (or is proposed to be) carried out in a compartment or other tract of land at the same time, a reference to the net mapped operation area or the net operational area must be read as a reference to the net mapped operation area or net operational

area (as the case may be) for each kind of operation occurring in the compartment or other tract of land.

The issue becomes a problem when the different types of operations as described in the IFOA are conducted separately (with specialised equipment). The forests are a mosaic of openings and types (forest structures) and the tracts are not always distinguished for the appropriateness of any particular operation at the planning stage. Site specific operational plans for logging operations (clause 77) must specify the type of silviculture and the kinds of products. The requirements of the types of silviculture entrench the tracts as operational units for very long periods.

The problem is exacerbated by the requirement to disperse operations over the forests and over time (clause 70) and to avoid cumulative impacts of past logging operations and specific dispersal and timing requirements of the different silviculture of operations.

33.3. In particular, Forests NSW must, as far as is practicable, plan AGS, STS release and STS regeneration operations in accordance with clauses 41 to 43 as if a reference in those clauses to the interval required between logging operations of the same or a different kind included a reference to the interval between logging operations carried out before and after 1 January 2011 (and not just intervals between operations carried out after that date).

Note: Clauses 41 to 43 require between 10 and 30 years between some operations.

Silviculture

- AGS silviculture is only allowable in wetter areas, but only if there has not been previous STS release operations since January 2011 or previous AGS in the area for 10 years.
- STS release operations [trees are selected for logging in a harvesting operation having regard to the diameter of the trees proposed to be logged and the basal area of the trees remaining after logging] are only allowable if
 - there has not been AGS in the tract since January 2011, (see 33.3 above ???)
 - there has not been STS release in the tract since January 2011 or for 10 years since that operation or subsequent operations.
 - it is of greater than 175 ha (a rather large tract in these forests for these operations),
 - \circ ~ it has an adjoining tract (30 ha) which has not had STS release operations for 10 years.
 - There are at least 2 age classes (STS release every 10 years will produce an age class every 10 years)
 - The operations maintain a basal area of 12 m² per ha. (that will not release a new age class)
- STS regeneration
 - The operations maintain a basal area of 12 m² per ha. (that will not release a new age class)
 - May not be conducted again, in the same tract of land for 30 years
- Early thinning operations are allowable in stands of trees of less than 50cm diameter (*presumed dbhob*) and must maintain a basal area of 12 m² per ha.
- Thinning operations [trees to be cut and removed for the purpose of promoting the growth of other trees that have the potential to yield timber] must maintain a basal area of 12 m² per ha.

Under these circumstances it is virtually impossible to manage tracts, silviculture and types of forestry operations as individual, discrete and specialised harvesting units. The only feasible management can be to run fully integrated operations under a thinning regime which may create release and regeneration opportunities. Such operations would welcome the occasional opportunity to do some AGS operations

To facilitate planning and operations amendment is necessary to apply appropriate silviculture in any particular tract or compartment, to remove the artificial linkage to types of forest operations and to enable all operations to produce all kinds of products.

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- Amendment of clause 5 is necessary to remove kinds of products from types of operations.
- Remove 5.3 b) as above
- Clause 13.3 is unnecessary
- Clause 77 should describe the types of silviculture and kinds of products rather than specify them
- Clause 33.3, which makes silvicultural intervals retrospective, should be removed
- AGS should be allowable wherever appropriate: distinction between wetter and drier areas has been proven wrong, the issue is the silvicultural method.
- Remove the minimum area limit on STS release and the requirement of two age classes.
- Remove the exclusion from AGS.
- STS regeneration must be available in all tracts at any time: remove strict application of a 30 year interval.
- The distinction of thinning and early thinning arbitrarily depends on a 50cm diameter level. The only distinction is the allocation of kinds of products. Both thinning and early thinning may be appropriate in any tract of forest regardless of size. The types of silviculture would be better described simply as thinning; independent of log size and kind of product in a particular stand.

BRIGALOW THE GREEN FIREWOOD STRATEGY

The IFOA for the Brigalow - Nandewar Region includes a Green Firewood Strategy, a transition strategy of the Department of Environment and Climate Change and Forests NSW to resource this sector of industry from reliance on collection of dry, dead hardwood to one of recovery of residues from ongoing hardwood sawlog production.

Clause 235. Green Firewood Strategy

- 1. Up to and including 31 December 2012, a dry log or other piece of wood lying on the floor of the forest may not be collected, or cut or otherwise damaged, for the purpose of its sale as firewood if:
 - (a) any part of the log or piece of wood is equal to or greater than 60 centimetres in diameter, or
 - (b) although smaller than 60 centimetres in diameter (measured at any point), the log or wood has a hollow with a diameter that is half or more of the log's maximum diameter.
- 2. On and from 1 January 2013, dry logs and other pieces of wood lying on the floor of the forest may not be collected, or cut or otherwise damaged, for the purpose of their sale as firewood.

Further the IFOA limits the harvesting of firewood to:
- (b) no more than 6, 500 m3 per year for the period 1 January 2013 to 31 December 2026 from any of the following
 - (a) residue timber,
 - (b) dead trees cut in logging operations up to (and including) 31 December 2012,
 - (c) wood collected from the floor of the forest,
 - (d) timber obtained from bull oak in logging operations,
 - (e) timber obtained from white cypress trees in logging operations.

with other limitations as:

- Prohibition on logging trees of hardwood species solely for firewood
- Collection of firewood from floor of forest prohibited from a drainage protection area.
- Tree retention in salvage logging operations
- RESTRICTED OPERATIONS IN ENVIRONMENTALLY SIGNIFICANT AREAS
 Dry logs and other pieces of wood lying on the floor of the forest must not be collected for
 firewood (for either domestic or commercial purposes) from an environmentally significant
 area or from any area within 300 metres of records of any of the following species of animal:
 - (a) hooded robin (south-eastern form),
 - (b) border thick-tailed gecko,
 - (c) bush stone-curlew,
 - (d) malleefowl,
 - (e) five-clawed worm-skink,
 - (f) Pilliga mouse,
 - (g) spotted-tailed quoll.

By any measure the production of firewood has failed, the strategy to convert to a "green" supply as residue from hardwood sawlog operations has failed.

		2008 - 9	2009 - 10	2010 - 11	2011 – 12 (to
					April)
IFOA	Total volume	9,800	9,800	9,800	9,800
	Dry-tonnes	4000	3500	2500	1500
Green	Green-	2000	3000	4000	4000
Firewood	tonnes				
Strategy	Allocation-	6000	6500	6500	5500
(WSA #1)	tonnes				
Actual production (WSA #1)	Dry ironbark	789	526	939	1918
	Green	150	488	545	820
	Ironbark				
	Ecomix	357	206	0	0
	(bulloak)				

The following amendments to the IFOA are necessary to maintain this sector of the industry.

- Termination of the Green Firewood Strategy,
 - remove clause 235 from the IFOA.
- Renew supply agreements total volume to be inclusive of green and dry firewood as it may be produced.
- Remove clause 5 (3) (b) of the IFOA:

"dead trees cut in logging operations up to (and including) 31 December 2012"

- Replace with "dead trees within logging operations and elsewhere in the forest"
- Remove additional dead tree and forest floor retention restrictions

UPPER NORTH EAST

Seasonality restrictions within module 4 of schedule 3 of the Appendix A of the Environmental Protection Licence of the Upper North East Region IFOA prohibits operations in some areas of the region for periods between October to March each year. Seasonality restrictions are based on rainfall and soil erosivity. In such conditions, regardless of seasons, other restrictions on forestry operations apply. So the restriction unnecessarily restricts operations in circumstances within that period when they may occur without any issue of rainfall.

ATTACHMENT 2

PROTECTION OF THE ENVIRONMENT OPERATIONS REGULATION

Burning of bio-material for electricity

The Protection of the Environment Operations (General) Amendment (Burning of Bio-Material) Regulation 2003 precludes the use of biomass for the generation of electricity.

Chapter 3B Burning of bio-material in electricity generating works

57M Native forest bio-material not to be used for electricity generation

The occupier of any premises who causes or allows native forest bio-material to be burned in any electricity generating work in or on those premises is guilty of an offence.

57L Definitions

In this Chapter:

Australian native tree means any tree of a species indigenous to Australia.

electricity generating work means a work (including associated facilities) that supplies, or is capable of supplying, more than 200 kilowatts of electricity.

EPA guidelines means guidelines in force under section 57Q.

forest bio-material means the bio-material comprised in trees.

native forest bio-material means the bio-material comprised in Australian native trees, other than:

- (a) bio-material obtained from:
 - (i) an authorised plantation within the meaning of the *Plantations and Reafforestation Act 1999,* or
 - (ii) an existing plantation within the meaning of section 9 of the *Plantations and Reafforestation Act 1999*, or
 - (iii) land on which exempt farm forestry (within the meaning of the *Plantations and Reafforestation Act 1999*) is being carried out, or
 - (iv) land on which ancillary plantation operations (within the meaning of section 9 of the *Plantations and Reafforestation Act 1999*) are being carried out, or
- (b) sawdust or other sawmill waste, or
- (c) waste arising from wood processing or the manufacture of wooden products, other than waste arising from activities (such as woodchipping or the manufacture of railway sleepers) carried out at the location from which the Australian native trees are harvested.

The regulation specifically prevents the commercial market for forest utilisation as a single specific product – electricity production. In doing so it severely limits forest management activities (thinning and residue collection) necessary for sustainable, efficient and economic forest management. It is contrary to sound carbon sequestration policy, production of renewable energy and reduction of fossil fuel generation. It condones the accumulation of bush fire hazard (other government policy and regulation inhibit the ability tdispose of the hazard through controlled burning activities).

Two amendments to this regulation are proposed

as INSERTION at 57L (a) (v)

"land accredited under a certification scheme for sustainable forest management in the course of silvicultural and sawlog harvesting operations."

and as **DELETION** in 57L (c) of the words

"other than waste arising from activities (such as woodchipping or the manufacture of railway sleepers) carried out at the location from which the Australian native trees are harvested.