

# ***HEALTHY ENVIRONMENT, HEALTHY COMMUNITIES IN THE BRIGALOW BELT SOUTH AND NANDEWAR BIOREGIONS***

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# INTRODUCTION

Both the Brigalow Belt South (BBS) bioregion and the Nandewar bioregion are experiencing a major environmental crisis and on-going socio-economic deterioration.

The timber industry in the two regions is suffering an historical decline. This is due to a long history of unsustainable harvesting and industry rationalisation that has had a big impact on regional communities. This major decline has taken place despite the fact that the volumes of cypress removed now are greater than at any other time in history.

For example, in 1980 there were five cypress mills in five different towns employing more than 50 people in the Inverell Supply Zone. Now there is only a single mill employing 18 people. Similarly, in the 1950's there were 16 cypress mills taking timber from the Pilliga forests, and now there are only five.

The situation is even more severe with ironbark logging. In the first half of the 20<sup>th</sup> century there were hundreds of sleeper cutters working in the BBS to supply up to 50 mills in the region. Now there are only a handful of fencepost operators left and a single ironbark mill. It has been a case of 'log out and then get out'.

The natural environment in the BBS and Nandewar regions is also in severe decline. Twenty-five animal species are now considered extinct in the BBS and 40% of those remaining are threatened with extinction. This is one of the highest rates of species decline in Australia.

The recent National Land and Water Audit recognised that the BBS and Nandewar are two of the most endangered, poorly reserved, and heavily cleared bioregions in Australia. Less than 2.6% of each region is protected in reserves. The BBS contains some of the largest stands of temperate woodlands left in Australia, a broad vegetation formation that has had more than 90% of its original distribution cleared since European invasion.

Therefore, large reserve outcomes in the Brigalow Belt South and Nandewar regions, with complementary off-reserve regulation, are crucial to ensure the survival of many species that are now declining or threatened with extinction throughout Australia. This means that the outcome of these two western assessments will have national conservation significance.

Heavy and unsustainable logging, grazing and altered fire regimes are having a major impact on the remaining vegetation in the regions. These activities have resulted in the conversion of mixed eucalypt forests with a grassy understorey to cypress monocultures, and the severe depletion of the most important habitat feature for birds and animals – large old trees with hollows and plenty of nectar.

While there are strong ecological arguments for the immediate protection of all remaining native vegetation in the bioregions, the social and economic impacts would be too great and such an outcome is not feasible in the short-term.

Conservationists have listened to the concerns of our neighbours and have revised our original proposal accordingly. Our proposal recognises that biodiversity and environmental interests must co-exist with a scaled down timber industry. However it also advocates for the diversification of our regional economy in order to ensure ongoing sustainability and to arrest the current decline.

Communities with a diverse economic base can better survive economic fluctuations and climate changes. They are no longer dependent on a single, environmentally damaging industry, but have economic choices and some form of safety net.

The solution for the BBS and Nandewar regions lies in innovative approaches to job creation, sound environmental protection measures, and the development of new economic opportunities that will sustain both the environment and the communities that depend on it long into the future.

To fail to recognise the extent of the environmental crisis in the west and to allow 'business as usual' in these irreplaceable woodlands would be to sell the region short. Healthy and sustainable communities are only possible when there is a healthy environment. This means protecting the best of what's left.

# BRIEFING 1: OUTLINE OF BOTH PROPOSALS

- This proposal will protect 427,560 hectares in the two regions through transfer of State Forest estate to National Parks estate. It will also protect an additional 300,000 hectares over time through private land acquisition.
- This will include 391,650 ha of the highest conservation value State Forest areas in the BBS region, which is only slightly more than the area of Government Option E, and a further 35,915 hectares of State Forests in the Nandewar region.
- The proposal aims to achieve a **net increase in jobs** in the region through the implementation of a cypress thinning program, a regional tourism strategy, investment in new sustainable industries, National Parks jobs, and coal and gas extraction on cleared private land.
- Most of the new jobs in the region are **proposed for the smallest towns**, and particularly those in which the timber industry is affected.
- In coastal assessment processes, all of the structural adjustment funding was allocated to the timber industry. We propose that in the BBS the NSW Government follow a similar model as that used for **dairy deregulation structural adjustment**, where funding is provided for new and alternative industry proposals, rather than the timber industry only.
- This proposal includes an **immediate end to ironbark logging** and a phased transition away from firewood collection on public lands, a much improved Threatened Species Licence on public land, and strict regulation of logging on private lands.
- Ironbark logging is the most environmentally damaging practice in State Forests in the region. Ironbark has been logged heavily for more than a century and is now almost completely exhausted.
- Currently there are 7,000 cubic metres of ironbark being taken from the region. This proposal would result in the closure of the large ironbark mill, at Baradine, and its **replacement with a value-adding cypress plant**.
- The proposal advocates for an **Integrated Firewood Replacement Strategy** involving the legislated phase-out of firewood extraction from public lands over the next 5 years. It is proposed that the Strategy be funded at \$1 million per annum and implemented by NPWS in conjunction with the threat abatement plan for firewood collection.
- The Strategy would provide new jobs whilst mitigating the environmental impact of firewood collection through a range of innovative approaches.
- The proposal includes a **quota cut of 50-60%** for cypress logging in the region. All previous forest assessment processes have involved quota cuts of this scale prior to the reserve process (50% staged cuts in north-east NSW, 60% Eden).
- The current supply of cypress in the region is 72,000 cubic metres. This proposal will allow an on-going cypress industry at half this size – 36,000 cubic metres.
- This will enable the mills in small towns which are heavily reliant on the timber industry to continue. It will ensure the cypress mills at Gulargambone, Gwabegar and Baradine continue at viable levels.
- The proposal allows for the **maintenance and/or increase of cypress export volumes** from the region. According to RACD (2002), the current export industry is only 15% of cypress quota in the region.
- The proposal will increase the overall value of the industry in the region through a cypress value-adding **glue-lamination plant** (or other appropriate value-adding facilities) at Baradine, **using cypress off-cuts**. The lamination plant would replace any jobs lost by closure of the ironbark mill.

## **BRIEFING 2: HOW LOGGING HARMS THE ENVIRONMENT**

- Logging and firewood collection have a major impact on the environment which is well documented in the scientific literature. It is particularly evident in the BBS region, on both public and private lands.
- The combined affect of heavy cypress and ironbark logging in the BBS has resulted in the conversion of mixed eucalypt/cypress forests with grassy understoreys to dense cypress monocultures, with depleted grass layers. This severely impedes the regeneration of the eucalypt- grassy understorey complex and drastically reduces the habitat niches available. This has contributed to the decline and extinction of grassy woodland species.
- Large old ironbark trees are one of the most important habitat resources in the region. They provide numerous hollows – both in the trunk and as holes that form over time when branches drop. Hollows only begin to form in trees when they are more than 150 years old.
- These hollows are used by many birds and animals for shelter, roosting and nesting. According to the literature, 70% of Australia’s birds and animals which use hollows in old trees are woodland species. So old trees in woodland ecosystems are particularly important. Species which use these trees include parrots, possums, gliders and owls, many of them endangered.
- It is expected that the next big wave of extinctions in NSW and Australia will be of hollow-dependent species because of the widespread destruction of old forests and old trees across the continent.
- In the BBS, logging has severely reduced the numbers of old cypress and ironbark trees, and the medium-sized trees required to replace them across all tenures. Because these trees grow so slowly (approximately 1-2mm girth per year) it takes many hundreds of years to recover the habitat that is lost to logging.
- The ironbark logging in the BBS region has been so severe that hollow-using species such as ring-tailed and brush-tailed possums, that were once common in the region, are now almost extinct. Recent surveys have recorded them on only a couple of occasions.
- All remaining large ironbarks, and all medium-sized ironbarks which will one day replace them, are now crucial to the survival of a large number of birds and animals in the region.
- An immediate end to ironbark logging on public land and strict controls on any logging on private land may well save many bird and animal species now teetering on the brink of extinction in the region.
- Large old trees also provide the best and most abundant nectar sources for birds and bats. These are particularly important in the BBS, because it been recognised as a transit zone and a critical over-wintering area in the East Australian Bird Migration System.
- The BBS should contain flowering eucalypts throughout the year which provide critical food resources in autumn and spring for migratory species and overwintering habitat for a large number of bird groups including honeyeaters and flycatchers (Nix 1976, Nix 1993). Logging diminishes this resource significantly.
- Firewood collection is now listed as a threatening process under the NSW Threatened Species Conservation Act. It has been shown to have a severe impact on the many lizards, snakes, birds and small mammals in the BBS which require dead trees and fallen logs for shelter, nesting and foraging.

## BRIEFING 3: HISTORY OF THE PILLIGA

Detailed descriptions of the pre-European vegetation of the Brigalow Belt South bioregion and other parts of western NSW, based on interpretation of historical records, are provided by Benson & Redpath (1997), Denny (1994), Mitchell (1991) and Norris *et al.* (1991).

These studies support the view that the region historically contained a variety of grassy and heathy woodlands, riparian areas, and heaths. In areas that have not been cleared, these vegetation types are still present today.

However, a selective reading of the early observations of some explorers has led some authors, most notably Rolls (1981), to suggest that the Pilliga Scrub was originally cover by open grassland or grassy open savannah. As a result, a popular myth has arisen that the Pilliga Scrub is a 'man-made', recently grown forest, and that this forest has saved our extant wildlife. These claims have been strongly disputed in the scientific literature.

### **A man-made forest?**

Rolls' claims have been analysed and compared in detail by Mitchell (1991), Norris *et al.* (1991), Denny (1994) and Benson & Redpath (1997), and all four analyses dispute his claims.

In their analysis of Oxley's observations in the region, Benson & Redpath (1997) point out that the forest was so dense in some areas that they '*could hardly turn their horses*' and complained about the lack of grasses to feed their horses.

Many written historical records support the conclusions reached by Benson & Redpath (1997) and others that the Pilliga has always been a heavily timbered area. For example, in an address given in Coonabarabran in 1913 about how best to settle the Pilliga, a Mr Cameron (1914) writes that:

*"In most of this country the timber is very thick and dense, and the settler will have to do a good deal of hard work before he is able to put much of his land under cultivation"*.

Carnahan (1976) described the character of the vegetation prior to modification by Europeans in some detail, suggesting that in woodland and forest areas there was an upper stratum of eucalypts, 10-30 m in height and with a crown density of 10-30% cover above an understorey of low trees. From Dubbo to Baradine, the overstorey structure in many areas is thought to have been more dense, with a cover of 30-70% with *Callitris* (cypress) the dominant species. Stump counts in Pilliga West have shown that it carried a density of mature trees of about 30 to the hectare (Paull 2001).

There is very strong evidence to prove that there was always an area of ironbark forest in the western part of the Pilliga, including photographs from the early 1900s. It was west Pilliga that was the backbone of sleeper industry in the first half of the 20<sup>th</sup> century. The first Forest Assessor, Mr Wilfred de Beuzeville described the western Pilliga in 1916 as follows: "*...there exists in the Western Pilliga an ideal forest area, practically in its virgin state, which is a very valuable asset to the Department controlling it. We have (1) excellent forest of C. glauca [White Cypress] occupying about one third of the area. (2) Similar forest of E. crebra [Narrow-leaved Ironbark] of about the same extent. (3) an excellent area for grazing and edible shrub land of perhaps the same area, and (4) an enormous forest of immature C. glauca, occupying about three-fourths of the total area of the combined types.*" (van Kempen, 1997)

Any cursory evaluation of the logging history of the Pilliga shows that an open savannah simply could not have supported the amount of timber extraction that has occurred, with 800 000 tonnes of sleepers and 2 million tonnes of cypress pine logs recorded as being removed since 1916.

### Which saved the wildlife?

All the early explorers in the Pilliga area mention the presence of possums. Some records describe them in their 'millions'. These are presumably the Common Brushtail Possums which are now close to extinction in the region. Recent surveys over several years throughout the BBS have recorded Brushtail and Ringtail possums on only a couple of occasions. Recent scientific work by Date *et al.* (2003) and Paull and Kerle (in press) confirms the on-going severe decline of large numbers of birds and possums of the Pilliga region. There is no doubt that any objective reading of the historical and scientific evidence confirms that human practices have led to the decline of wildlife in the Pilliga region, rather than the reverse as claimed by Rolls (1981).

**Table 1 Decline of vertebrates in the Pilliga**

<b>Extinct birds</b>	<b>Declining birds</b>	<b>Extinct mammals</b>	<b>Declining mammals</b>
Malleefowl	Australasian Bittern	Western Quoll	Tiger Quoll
Australian Brush-turkey	Square-tailed Kite	Brush-tailed Phascogale	Black-striped Wallaby
Australian Bustard	Black-breasted Buzzard	Red-tailed Phascogale	Rufous Bettong
Flock Bronzewing	Black Falcon	Stripe-faced Dunnart	Brush-tailed Possum
Squatter Pigeon	Grey Falcon	Fat-tailed Dunnart	Ring-tailed Possum
Blue-winged Parrot	Peregrine Falcon	Planigale spp.	Squirrel Glider
Shy Heathwren	Bush Stone-curlew	Western Barred Bandicoot	Eastern Pygmy-possum
Black-throated Finch	Mulga Parrot	Bilby	Feathertail Glider
	Swift Parrot	Brush-tailed Bettong	Water Rat
	Budgerigar	Eastern Hare-wallaby	Dingo
	Yellow-tailed Black-cockatoo	Bridled Nailtail Wallaby	Grey-headed Flying Fox
	Rainbow Lorikeet	Brush-tailed Rock Wallaby	Fox
	Crimson Rosella	Hopping Mouse (?)	Little Red Flying Fox
	Blue Bonnet	Plains Mouse	
	Masked Owl	Gould's Mouse	
	Red-backed Kingfisher	Eastern Chestnut Mouse	
	Azure Kingfisher	Stick-nest Rat (?)	
	White-browed Scrub-wren		
	Chestnut-rumped Heathwren		
	Little Button-quail		
	Southern Whiteface		
	Yellow-throated Miner		
	Regent Honeyeater		
	White-naped Honeyeater		
	White-throated Honeyeater		
	Black-chinned Honeyeater		
	Pied Honeyeater		
	Painted Honeyeater		
	Yellow-plumed Honeyeater		
	Hooded Robin		
	Flame Robin		
	Spotted Quailthrush		
	Gilbert's Whistler		
	Leaden Flycatcher		
	Satin Flycatcher		
	Ground Cuckoo-shrike		
	Plum-headed Finch		
	Diamond Firetail		
	Zebra Finch		
	White-backed Swallow		

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# BRIEFING 4: SUMMARY OF BBS PROPOSAL

## EMPLOYMENT PROPOSALS

- The WCA has listened to the concerns of residents in the BBS who feel the regional economy might deteriorate if there are cuts to the logging industry.
- To this end, despite the absolute need to protect all remaining vegetation in the bioregion in a last-ditch attempt to protect endangered species and all other environmental values, we recognise that this is not a practical outcome for government in the short term.
- Our proposal should be seen as a package. One that attempts to diversify the regional economy, making it more sustainable in times of drought and making communities in small towns more viable. We have given particular attention to the smallest towns in the regions where the timber industry will be affected. We ask that Government funds are provided only in exchange for significant conservation gains and that the conservation movement is represented on any body set up to oversee the program.
- Our reserve proposal could be implemented with no net loss of jobs even if only two or three of the components of our package were adopted. If all the components were implemented not only would there be a net increase of several hundred jobs in the region, but they would be sustainable jobs.
- We request that aboriginal people are allocated at least 25% of all new jobs resulting from taxpayer investment. By supporting employment initiatives for aboriginal communities this proposal will also assist those communities to become healthier and more sustainable. It also recognises that aboriginal people currently engaged in firewood collection will be affected by the proposed phase-out of firewood collection, and should have first option on the replacement briquette manufacturing industry.
- Calculated net job impacts for the region are in Table 1 below and for each town in Table 2 (see pages 21 & 22). These are based on various estimates by the timber industry, the WCA socio-economic consultant and other reliable sources. Estimates of jobs in the timber industry vary widely with various projects and reports. The estimate below is based on the SFNSW job figures.
- The job impacts on the timber industry of the quota cuts are likely to be significantly less than indicated if the value-adding proposals are implemented with full utilisation of the small sawlog resource (glue-lamination plant) and thinning program.

**Table 1. Job Impacts of WCA reserve and employment proposals**

<b>Source</b>	<b>No. of Jobs</b>
New National Parks jobs	98+
Tourism	100+
Briquette Manufacturing	8
Cypress Oil Distillation Plant	5
Other Value Adding	20
Mining on cleared private property	320
Cypress thinning program	40+
Timber Industry Job Losses	-93
<b>Net Total</b>	<b>498+ net increase</b>

NB. These estimates are conservative. Actual net increase in jobs will be larger when structural adjustment opportunities for new industries are factored in.

### **New National Parks and Reserves**

- Using the same multiplier as the analysis of all the previous options, (RACD, 2002) under this revised WCA proposal there will be at least 98 new NPWS jobs. This figure is likely to increase as visitation to new National Parks increases over time.
- New NPWS work depots are proposed at Baradine and Bingara to provide immediate alternative jobs for those affected by sawmill closure. The immediate task for the workshops would be providing some basic park infrastructure such as good signage, picnic areas and walking tracks.

### **Cypress thinning program**

- All stakeholders and agencies agree that there is a need for a cypress thinning program. Only such a program provides any hope that there will be cypress of sufficient size to use industrially in 30-50 years time. SFNSW currently has a thinning 'backlog' of tens of thousands of hectares.
- We propose that the thinning program be conducted as a research project with different intensities of thinning clearly recorded to enable long-term tracking of the effects. There is some urgency for this work. We propose SF manage 4 crews each of 4 people, total employment of 16 which rises to 24 with multipliers. Additional jobs may result if thinned pines are collected and transferred to briquette/oil plant.
- A carefully monitored research trial of the impacts of thinning on biodiversity could be conducted on NPWS estate if it was strictly controlled and confined to a very limited area. Any future role for thinning in Park management in the region would be decided based on the results of this study.
- There is clearly much scope for a similar thinning program to be carried out on private property which would produce up to 15 jobs with multipliers.
- Thinnings jobs would be available in all existing mill towns and could provide immediate alternative employment for any timber worker made redundant as a consequence of conservation decisions.

### **Value adding opportunities**

- There are numerous opportunities for increased value-adding to create additional employment in small mill towns in the BBS. Most of the value-adding in the region is currently done at Gunnedah, and there is very little at the towns of Gulargambone, Baradine or Gwabegar. Options should be investigated for adding value to existing sawn timber at each of these towns, and this may include transfer of some activities from Gunnedah to Baradine.
- It is proposed that a glue-laminating and finger-joining plant is established to replace jobs at the Insultimber ironbark mill at Baradine. This plant would use cypress off-cuts from the Baradine and Gwabegar mills and there would be no increase in cypress extraction required. It could produce high quality laminated products. It would maximise the value and recovery potential from smaller logs.
- Such a plant is currently successfully operating in Forbes based entirely on off-cuts from cypress mills and could employ up to 19 people which would replace the jobs at the ironbark mill. It is estimated that such a plant would cost in the order of \$0.5 million and that it would be viable in the region, especially as a co-operative.

## **Briquette manufacture**

- Firewood collection has been listed as a key threatening process under the Threatened Species Conservation Act. By establishing two briquette manufacturing plants, one each at Gulargambone and Gwabegar, using sawmill residues and possibly some thinnings, it would be possible to phase out firewood collection from our native woodlands.
- Such a plant was established in the Eden RFA and now sells briquettes to Melbourne. RACD (2002) indicates that in excess of 40,000m<sup>3</sup> of sawmill residue is produced from the BBS region each year which would enable a viable briquette manufacturing program in the region.
- Providing a market for sawmill residues would make the mills more resilient and profitable and better able to cope with the reduction in quota. Compressed wood briquettes are an excellent fuel source as they are of high density and burn slowly generating good heat.
- The timber industry have estimated that two such plants could be established for \$1 million. Each plant would include a portable plant, boiler/superheater, hammermill and briquette compressor. They would employ 4 people at each plant.
- Ideally the Government could provide the start-up capital to enable these plants to be up and running within 12 months. They have the potential to not only supply the domestic market but also part of the Sydney and Canberra firewood markets and could be sold as 'sustainable firewood'.

## **White Cypress Oil Distillation Plant**

- Cypress oil is distilled from sawdust. According to the Forest Products Association it has been successfully trialed as an alternative to copper chrome arsenate (CCA) which is a standard termite proofing treatment for pine. CCA has now been banned in the USA following its close link to numerous incidents of cancers and other health impacts. There is an opportunity to create an international market to replace Koppers Logs in places such as Japan and California. White cypress oil could be the saviour of the treated pine industry.
- This oil also has great potential for medicinal purposes, and it is thought it may equal tea-tree oil in the wide range of applications that it has.
- The distillery could process thinnings from both public and private land. Such a thinning program should increase the likelihood of a future cypress sawlog resource in 30-50 years time. Post-distillation the sawdust can still be used for manufacture of briquettes.
- According to industry estimates, such a combined operation would produce 7.5 litres of oil and 500 briquettes for each 5 tonnes of sawdust. A small plant proposed for Baradine would employ 5 people and need approximately \$0.5 million for start-up infrastructure.

## **Apiary**

- The WCA proposal would have no effect on apiary in the area. The NPWS are committed to allowing ongoing use for beekeepers to any hive sites which become NPWS tenure. Increased tourism and awareness of the region may have a positive impact on local honey sales.

## Mining

- Minerals Resources data shows that 80% of high potential area for coal and coal seam methane occur on mainly cleared private land in the region. The WCA is not opposed to mining- provided it is conducted in an environmentally responsible way on **already cleared land**.
- Rather than destroying irreplaceable conservation values by failing to protect mature vegetation because of mineral potential, the NSW Government could offer **financial assistance to facilitate exploration on cleared private property**.
- The mining industry has estimated that it will deliver about 400 new jobs to the region. Mining jobs are likely to be concentrated in Narrabri, Boggabri and Gunnedah. Our option does not preclude these new jobs where they are based on mining on cleared land.

## Tourism

There is little doubt that large National Parks in an area increase tourist visitation. Increased tourist employment will to some extent depend on the amount of financial support the NSW Government is prepared to provide. More than 100 new jobs would be created across the region if some of the measures below were adopted.

1. **Pilliga Cultural and Heritage Centre** in Baradine, a proposal supported by all stakeholders. This centre would also accommodate a café; showcase local produce and have a small workshop attached producing hand-crafted furniture and wood products.
2. Tourism promotion aimed at high value tourism markets such as **Bird Watching, Wildflowers and Cultural Heritage**. The recent Birds Australia Conference in Coonabarabran is an example of the potential in this area. Several hundred delegates stayed, ate and toured locally. Bird-watchers represent a very high-value, lucrative eco-tourism market which the BBS is well-suited to capturing due to its extremely diverse and threatened bird fauna.
3. Identification of the area as the '**Orana Loop**' which aims to incorporate newly established National Parks into a list of existing nature tourist destinations, such as the Zoo, Siding Spring and Warrumbungles, and using the Newell Highway as the backbone.
4. The Loop provides a vision for a network of natural and constructed attractions promoted through local communities working co-operatively together. An integrated, **whole-of-region marketing approach** could make it one of New South Wales most significant natural tourist attractions.
5. Initial funding of at least \$1 million would be sufficient to develop the Orana Loop and thus effectively co-ordinate the tourism strategies of **7 Local Government Areas**.
6. **Upgrade the Pilliga Forest Way** between Kennebri and the Newell Highway. Ensuring this road was accessible to two-wheel drive vehicles and had adequate signposting would make it an alternate route for tourism, and place it on the scenic loop from Coonabarabran to Narrabri. It is the single, **most effective** way of increasing tourist visitation to the Pilliga forests and Baradine.

7. **Scenic Rail** – currently there is a rail line running from the small town of Binnaway near Coonabarabran, to Gwabegar. \$9.5 million has recently been spent to improve this line, including major work on bridges and track. During the summer this provides the major transport route that is used to move wheat from farms in the region.

During the cooler months, there is great potential for Scenic Rail trips along this most picturesque line through the Warrumbungle ranges and Castlereagh Valley. It could be combined with stops for bushwalks and would enable local hospitality industries at Baradine, Gwabegar and Binnaway to develop, including the Pilliga Cultural and Heritage Centre.

There is an enthusiastic rail heritage group already existing in Binnaway, and a light rail (such as a two-car diesel-powered tram or motor-rail set like those being used in Canberra and Cowra) could commence immediately. Likely cost \$250,000.

### **Additional New Industry Opportunities**

In addition to the real and immediate employment prospects listed above, there are **numerous other opportunities** for the regional economy to **expand and diversify**. Most would need to be initiated by private investment. To this end we propose that the NSW Government develop a structural adjustment package which supports regional communities by offering financial assistance by way of low-interest loans, limited start-up and extension capital to other industries. This approach was used successfully by the Federal Government in its **Dairy Deregulation Structural Adjustment Package**. To avoid the problems encountered with the forestry structural adjustment program on the coast, it is proposed that the adjustment program must be open to public scrutiny and there should be a conservation representative on any group overseeing the program.

Potential new industries include, but are not limited to, the following:

- **Broombush plantations** – the potential for growing the local plant *Melaleuca uncinata* for producing brush fences, which are popular in Melbourne, Canberra and Adelaide. Such plantations have a proven record and are a well-established industry in South Australia, providing steady employment and good economic returns, although there have been problems meeting demand.
- **Firewood woodlot establishment**. Existing studies indicate that woodlots can grow at rates of up to 2m<sup>3</sup>/ha/year in western areas and may produce volumes within 12 years. Further analysis of the economics of farm woodlot establishment to be conducted concurrently. Emphasis on selective harvesting of woodlots for firewood rather than a clearfelling approach which has negative soil, water and salinity implications.
- **Multi-use woodlot establishment** on private property for firewood, fodder trees, biodiversity values, and trees for bees (pollen and honey). This would help drought proof areas. This shifts the emphasis from the long-term production of timber to on-going production and economic benefits from a range of other uses.
- **Cut Flowers** - The Brigalow Belt South contains some of the key growing conditions (dry summers and well drained acidic soils) for growing particular species of wildflowers native to the South West of Western Australia. This potentially lucrative industry remains undeveloped in the region due to a lack of research specific to the region, expertise in the industry, and start up capital.
- **Essential Oils** - there is an opening for a distillery for oil extraction from many plants that can be grown locally including herbs such as Rosemary and Lavender, and a range of Native foliage oils. These crops have low water requirements and many of them are suited to the climate and soils in the region.

- **Bush Foods** – over 250 species of plants in the region have been used by the traditional owners for bush food and other uses. Some of these have potential for wide appeal in the market, although as yet there has been little research done. Crops already being marketed elsewhere include wattleseed, wattlegum, quandong, bush bananas, bush citrus and bush tomatoes.

### **Rural Industry Training and Research Station**

There is an opportunity for the NSW government to play a pivotal role in establishing enterprises like those listed above, as major new rural industries for inland NSW. All the impediments to the growth of these industries could be overcome within 5 years if the NSW government provides funds to:

- Establish a partnership with Rural Industries and Research Development Council (RIRDC) and other researchers in the native flower, essential oils and bush food industries to examine potential experimental crops for the Brigalow Belt South.
- Establish a partnership with NSW TAFE to provide training in propagation, harvesting, packaging, marketing, floristry and small business.
- Fund trial plantings of a range of species that have the potential to find niche markets.
- Provide new growers with up to 30% of their start up capital.

## PROPOSED RESERVE OUTCOMES IN BBS

- The reservation of 391,650 hectares of land as National Parks, Nature Reserves, or State Conservation Areas. This is a **significant reduction** from the initial Western Conservation Alliance option of 520,000ha and the revised option of 470,000ha.
- This proposal **addresses the key threatening processes** of ironbark logging, firewood collection and unsustainable cypress logging through a range of reserves, legal mechanisms and economic assistance.
- A thorough **analysis of the conservation data** was carried out and a reserve system designed, to protect the areas of highest conservation value. In heavily depleted ecosystems, the **most productive areas in the best condition must be protected**. They are the key to the survival of species. This proposal will protect such key areas where the Government options failed.
- This proposal will ensure adequate protection of two of the **largest temperate woodlands left in Australia** – Pilliga and Goonoo. The reservation of these areas will be critical to the survival of woodlands species that are now disappearing throughout Australia.
- The proposal provides much better conservation outcomes than Government Options D and E, with little increase in area (see Graph 1). This is because it protects the most significant areas.
- The proposal includes:
  1. A large **National Park in West Pilliga** that will protect poorly reserved Box and Ironbark woodlands and promote the survival of the **largest Barking Owl population in NSW**. It is the most critical fauna habitat in the region and will significantly improve the chances of survival for at least 48 rare or threatened animal species.
  2. A new **Goonoo National Park** that will protect the largest and most diverse stand of ironbark woodland left in NSW and provide a refuge for at least 236 animal and 284 plant species including the Malleefowl, Glossy Black Cockatoo and Eastern Pygmy Possum.
  3. A State Conservation Area in **East Pilliga** that will protect wilderness values, the endemic Pilliga mouse and the major hotspot of plant species diversity in the region.
  4. A large **Bebo National Park** that protects 3 animal species which do not occur anywhere else in NSW; the Zig Zag Gecko, Dunmall's Snake and Delicate Mouse.
  5. A **number of smaller National Parks or Nature Reserves** scattered throughout the region that will conserve critical vegetation remnants in heavily cleared landscapes. These will **protect 41 rare, endangered or vulnerable ecosystems** including several endangered ecological communities (such as Grassy White Box Woodlands) and up to 333 animal species and 693 plant species.
- **Reservation of the 'Monkey Scrub' forests**. These occur just outside the BBS region to the west. They have exceptional conservation values, including some oldgrowth cypress, but are unlikely to ever be part of any regional assessment. They encompass only 9,385ha and contribute only 1,000 m<sup>3</sup> per annum to log supply.
- Implementation of the Eden RFA approach to dealing with areas of crown leasehold over State Forest tenure that are proposed for reservation. Leasehold stays in place pending voluntary acquisition by NPWS and tenure is vested in Minister for the Environment. This mechanism has recently been successfully repeated for several of the north-east NSW forest icons.
- The immediate protection of 8 parcels of vacant crown land subject to Aboriginal rights and interests therein and funding of \$5 million to purchase private land for conservation in the BBS region.

- It has been suggested that there is the possibility of State Forests and the NPWS **jointly managing areas of State Forest**. This is being proposed as a mechanism to supposedly give more conservation emphasis without tenure change. The WCA, after consultation with our colleagues in other state and regional conservation groups, **reject this approach**.
- The driving force of forest management is wood supply contracts. Contractual volumes determine management practices not vice versa. It is impossible to manage State Forests for conservation outcomes where this wood volume imperative rules.
- We believe that joint management of State Forests would compromise the NPWS. It would also lessen their compliance monitoring and their authority as a regulator of SF activities. The NPWS already has difficulties regulating State Forests, this type of blurred responsibilities would provide no conservation security and set an unfortunate precedent in attempting to deal with public land management issues.

## **ABORIGINAL OWNERSHIP OF NATIONAL PARKS**

- This proposal includes a 16,000 hectare Aboriginal owned National Park at Terry Hie Hie. This new National Park is to include seven State Forests (Mission; Terry Hie Hie; Irrigappa; Campbell; Montrose; Berrygill; Courallie) and one existing small Nature Reserve (Gamileroi).
- This Aboriginal-owned National Park has been proposed by the people with traditional ties with Terry Hie Hie. It is supported by Moree Local Aboriginal land Council. The Regional Assessment provides ample evidence for the cultural significance of these lands.
- Specific funding, over and above ordinary National Park funding, needs to be allocated by government to make this proposal a reality. This special funding is seen as an essential part of the BBS industry restructure package, with identifiable economic, social and environmental outcomes. Estimated cost over next 5 years: \$250,000 per year.
- The WCA supports other Aboriginal owned National Parks in the region where these are sought by the Aboriginal community.

## LEGISLATIVE AND OTHER MECHANISMS

- The implementation of an assessment process for the transfer of Vacant Crown Land and Travelling Stock Reserves to National Parks tenure or conservation management to be completed by June 2004 with reference to Aboriginal rights and interests in those lands. On-going process for conservation assessment and acquisition of high conservation value Crown Leasehold.
- Given the highly endangered state of the bioregion, even reserving all public lands would not meet conservation targets. Land acquisition and private land conservation incentives plus a large reserve system on public land are all absolutely essential to save healthy remnants of the western woodlands. As a minimum, a target should be set and funds allocated to purchase at least 300,000 hectares of high conservation value private lands.
- An overhaul of the Threatened Species Licence for the BBS that includes an adequate assessment of all areas of State Forest in line with recognised EIS standards as defined under the EP&A Act. Major improvements in licence conditions to increase habitat and recruitment tree retention, and improve threatened species protections, are urgently required.
- The introduction of strict controls on private land logging to ensure that all ironbarks greater than 40cm at base, all large cypress, and an adequate number of recruitment trees are retained, and high conservation value areas are protected.
- At least \$20 million for a pilot private land incentives scheme in the region. This should include a co-operative and integrated framework of conservation management across tenures to enhance strategic remnants and connectivity in the landscape. The scheme should aim to protect the most mature and extensive remnants and the most depleted ecosystems. It could be envisaged as a prototype for the implementation of some aspects of the Sinclair Report resulting from the Native Vegetation Reform Implementation Group.
- No foreclosure on Nandewar conservation outcomes by any new wood supply agreements in the Inverell Management Area.
- No clauses in Forest Agreement, Wood Supply Agreements or IFOA which foreclose on future reservation in the region.
- Legislation to preclude any future intensification of logging practices of any sort in the region.
- The exhibition and identification of the three Provisionally Identified Wilderness areas in the region.
- IFOA to specify that any vegetated land identified for purchase by SFNSW must first be subject to a joint assessment of conservation values between NPWS and SFNSW. NPWS to have first purchase option if warranted by conservation values.
- To establish the Aboriginal owned Terry Hie Hie National Park, the legislative package to implement the BBS & Nandewar decisions will need to include revocation of Gamileroi Nature Reserve (118 hectares) and its gazettal as part of the new Terry Hie Hie National Park. It will also require amendment of Schedule 14 of the NP&W Act to add 'Terry Hie Hie National Park' to the list for Aboriginal ownership.

## MINERAL ISSUES

- More than 80% of high potential coal and methane reserves occur on private lands in the region, most of which have been cleared. In this context, there are no genuine grounds for proceeding with extraction on high conservation value vegetated public lands.
- To this end we propose as part of the structural adjustment funds that the Government allocate \$1m to facilitate exploration on suitable private lands. Any exploration on public lands must be subject to strict environmental assessment procedures and should be made subject to the requirements of the Environmental Planning and Assessment Act in this regard.
- DMR objections to reserves and reserve categories in the BBS have been excessive. They have objected to all forms of reserves, including Forest Management Zones, for most high potential areas; they have objected to State Conservation Areas and demanded only Forest Management Zones for slightly lower value areas; and they have objected to National Parks and demanded State Conservation Areas for almost all other areas, including areas with only highly speculative mineral potential. In fact, DMR lodged objections to 70% of the area of the Government Option E.
- This pattern of objections by DMR represents an obvious and unacceptable misuse of the State Conservation Area category. The end result is that the State Conservation Area category is being used to replace National Parks almost entirely and that mineral objections are still being used to block reserve outcomes of any type, even informal reserves that allow mining.
- To address these problems it is proposed that some constraints are placed on mineral objections, so that low potential and speculative interests are not used to prevent National Park status, as follows:
  1. That areas for which DMR objected to any type of reserve status, such as north-eastern Pilliga, are upgraded to Forest Management Zones that allow mining and will not impede mineral interests.
  2. That areas for which DMR objected to State Conservation Areas and would only allow Forest Management Zones, are upgraded to State Conservation Areas that allow mining and will not impede mineral interests.
  3. That areas of low to moderate mineral potential, for which DMR have objected to National Parks and would allow only State Conservation Areas, are upgraded to National Parks. This includes Goonoo and West Pilliga, which according to DMR data have only low to moderate potential for coal and coal seam methane. Their mineral potential status is highly speculative at best and should not be used to block secure reserve outcomes.

## **TIMBER INDUSTRY ISSUES**

The ironbark and cypress resources in the BBS have been heavily and unsustainably exploited. Ironbark supplies are now almost completely exhausted. Cypress is still being logged at grossly unsustainable levels with the allocations for 2002 greater than any other time in history (see Graph 2).

The timber industry in the region is only a small part of the economy. It contributes 1.1% of the regional economic activity and 1.3% of the value-added Gross Regional Product (RACD 2002).

The industry consists of 12 cypress mills and 1 large ironbark mill that take timber from the Brigalow Belt South and Nandewar bioregions and purportedly employ 209 people.

### **BBS TIMBER PROJECT**

The SFNSW timber project for the Brigalow Belt South was mismanaged and failed to deliver a working model for negotiations or the agreed outputs required within the timeframe.

Both the amount of cypress currently allocated to mills and the estimated timber volumes are in question, and SFNSW has failed to provide substantive evidence to support either.

SFNSW apparently now have a working model, although stakeholders have still not been provided ready access to it. To get the model to 'run', SFNSW have simply replaced data with 'assumptions' that are completely untested and often untestable and which introduce new levels of uncertainty.

Estimates of available timber volume from the SFNSW model are highly questionable and certainly can not be considered reliable. They do not provide a sound basis for the Government to give 20 year supply agreements and any contracts signed on this basis are likely to incur a major compensation risk.

Current short-term contracts end in 2004. It is proposed that an independent review of all timber supply estimates and contracts is conducted in 2004 to determine how to allocate volumes thereafter.

### **CYPRESS QUOTA ALLOCATION IN THE BBS**

The total allocation of cypress sawlogs to the timber industry is 72,560 cubic metres from the BBS (and 80,680 cubic metres total from BBS and adjacent areas in Gilgandra and Inverell).

However, the actual volumes cut in 2001 were only 86% of the allocation, which indicates that the allocation is a 'maximum' and not the average volume provided to industry. This indicates there is flexibility in current supply. The average volume supplied from the BBS is approximately 62,400 cubic metres.

There is considerable historical evidence to suggest that the current levels of logging are grossly unsustainable and will not be obtainable, even without any new reserves. For example, in the Inverell Management Area it was predicted that cypress supply would be virtually exhausted by 1990. Yields in the 90's from this Management Area have been a tiny fraction of previous yields.

## HARDWOOD INDUSTRY OUTCOMES

Ironbark is the basis of the hardwood industry in the region. There is only one large ironbark sawmill. There are about eight people employed in what are known as minor hardwood operations and a further seven cutting for fence-posts.

We propose:

- A legislated end to ironbark logging in the region from 2004 with the potential replacement of the single ironbark mill in the region with a cypress glue-laminating plant in Baradine in a job neutral or job positive outcome. Details of current ironbark mill provided below:
  - The company which owns the ironbark mill, Gallagher Pty Ltd, uses ironbark to make electric fence posts and droppers. Other companies use high density polyethylene (HDPE) for droppers, and steel or pine for posts.
  - Gallagher Pty Ltd is a large company. Its website claims : “Since 1938, Gallagher has invested millions of dollars in Research and Development: more than all other electric fencing companies in the world.
  - Gallagher Pty Ltd is very well placed to adjust to an end to ironbark logging.
  - A transfer from ironbark droppers to HDPE and the expansion of its current lines of steel and pine posts to replace ironbark posts should cause minimal disruption to its operations.
  - Gallagher claim that Insultimber is “a natural renewable resource”. Unfortunately it takes several hundred years to ‘renew’
  
- An Integrated Firewood Replacement Strategy involving the legislated phase-out of firewood harvesting from public lands over the next 7 years. Strategy funded at \$1 million per annum and implemented by NPWS in conjunction with threat abatement plan for firewood collection. The strategy would provide new jobs whilst also mitigating the environmental impact of firewood collection through the following approaches:
  - Two briquette manufacturing plants (at Gunnedah and Baradine) which convert cypress sawmill waste and thinnings to briquettes for use as a heating fuel.
  - Firewood woodlot establishment on salinity priority areas, possibly using irrigation waste water.
  - Use of thinnings from existing North Coast plantations to supply proportion of firewood markets in Sydney and Canberra.
  - Cash incentives for households who convert to other forms of heating. This would also have long-term health benefits as the incidence of respiratory illness would decrease.

## CYPRESS INDUSTRY OUTCOMES

The impact on the cypress industry has been calculated by using the original timber model run by Government agencies for the Government options (despite its obvious flaws as outlined below).

Based on that model, this proposal will deliver the following cypress sawlog outcomes:

- 67,440 cubic metres of sawlogs until the end of 2004. This is an 8% reduction from current levels and is achieved by ending parcel sales to the industry whilst continuing to meet all quota and supply agreement volumes. All wood supply agreements are honoured.
- 36,280 cubic metres of cypress sawlogs to the industry every year from the end of 2004 to 2010. This represents only a 50% reduction in the maximum cypress allocation and requires minor variations to existing long-term wood supply agreements with Baradine.
- This reduction cannot be applied equally to all mills, because some mills already have contracts until 2010 and they have to be maintained or re-negotiated with relatively minor changes. The total allocation across the region will be cut by 50%, but the cuts to individual mills will vary widely (see Table 1).
- After 2010, the SFNSW timber model indicates that there will be a yield of 32,000 cubic metres to the industry until 2020. However, given the major problems with the SFNSW models, it is important to note that the modelling system is extremely unpredictable for longer term predictions (beyond 2010), and that before any contract is entered into beyond this date, a thorough review of available volumes should be conducted.

This will enable the existing export mills at Baradine, Gwabegar, Gunnedah and Gulargambone to continue and increase in value through the production of new, high-value products. It ensures that mills in the small rural towns continue.

It will require the negotiation of a 25% reduction in the 10 year supply agreement with the Baradine mill and the transfer of the Gunnedah supply agreement from the Inverell Supply Zone to the Gunnedah/Pilliga supply zone. All other existing Government commitments to the timber industry including the short and long-term wood supply agreements currently in place will be met.

The real impact of the reserve proposal on industry is likely to be much less than that outlined above because the current stated allocations to industry are much greater than the average volume provided. The actual industry relying on State Forest estate appears to be only 82% of that claimed by SFNSW.

If the proposed volumes are compared with the actual yield to industry rather than the inflated allocation, then this proposal results in a 39% reduction to the industry in the first 10 years, and a 46% reduction thereafter.

Installation of a glue-laminating and finger-joining plant on the site of the Insultimber ironbark mill at Baradine.

- This plant would use timber off-cuts from the Baradine and Gwabegar mills and there would be no increase in cypress extraction required. It could produce high quality laminated products. It would maximise the value and recovery potential from smaller logs.
- Such a plant is currently successfully operating in Forbes based entirely on off-cuts from cypress mills and could employ up to 19 people which would replace the jobs at the ironbark mill.
- It is estimated that such a plant would cost in the order of \$0.5 million and that it would be viable in the region, especially as a co-operative.

Transfer the existing value-adding activities from Gunnedah to Baradine, where most of the timber is cut. Currently, raw timber is cut at Baradine and taken to Gunnedah where value-added processing takes place. As a result, more people are employed at the Gunnedah mill than at Baradine, even though Baradine cuts almost twice as much cypress. This would potentially provide up to 20 additional jobs in Baradine.

There is a significant small sawlog resource in the region and it is important to ensure that it is included as 'quota' in supply contracts. All timber supply contracts should include the widest possible specification of a quota sawlog to enable maximum utilisation of small resource and thinnings (ie 12-16cm diameter at breast height).

**TABLE 1: CYPRESS MILL IMPACTS OF PROPOSAL**

Mill	Town	BBS Actual Throughput	TOTAL Current Allocation (includes Inverell & Gilgandra)	To Dec 2004		To Dec 2010		To Dec 2022	
				Volume	% of Actual	Vol	%	Vol	%
Appalacian Log Homes	Emu Plains	120	200						
Austin	Quirindi	400	400						
Baradine Sawmilling	Baradine	21600	21600	21600	100%	15000~	70%	13500	63%
Bingara Cypress	Bingara	5280	8800	4280	81%				
BL&DA	Narrabri	3780	4300	3000	79%				
Burns	Baradine	500	500						
Gulargambone Cypress	Gulargambone	10780	11780	10780	100%	7000*	65%	5500	51%
Gunnedah Timbers	Gunnedah	11000	13800	10000	91%	7000#	64%	6000	55%
Gwabegar Sawmill	Gwabegar	7200	7200	7200	100%	7200	100%	6000	83%
Lidoframe P/L	Narrabri	5000	5000	5000	100%				
Lowes	Cecil Plains	300	500						
Ramiens Timber Co P/L	Dubbo	5580	5580	4580	82%				
Tender		1020	1020						
<b>Total</b>		<b>72560</b>	<b>80680</b>	<b>67440</b>	<b>92%</b>	<b>36200</b>	<b>50%</b>	<b>32000</b>	<b>45%</b>

~This is 75% of current long term supply agreement to 2010 (20,000 cubic metres).

\*Historical throughput of 5000-6000 cubic metres or less (Gilgandra Management Plan 1985). This proposal will therefore not affect its viability.

#Meets existing 10 year wood supply agreement and continues to supply at that level – 7000 cubic metres.

**NB As mentioned elsewhere in this document, the SF wood modelling system is unreliable for longer term predictions (beyond 2010). Before any contract could be entered into beyond this date significant verification work would need to be done.**

**TABLE 2: POTENTIAL JOB IMPACTS OF PROPOSAL, BY TOWN**

Mill Towns	Population	Current Timber Jobs	Timber Job Losses	NPWS Jobs	Cypress Thinning	Tourism	Value- adding	Mining on Private Property	Total New Jobs	Net Gain in New Jobs
Bingara	<b>1236</b>	18	-18	9		11			<b>20</b>	<b>2</b>
Gunnedah	<b>8315</b>	42	-10		13	18		170	<b>201</b>	<b>191</b>
Gwabegar	<b>250</b>	20	0		14	2	4		<b>20</b>	<b>20</b>
Baradine	<b>609</b>	41	-16	9		12	25		<b>46</b>	<b>30</b>
Narrabri	<b>6419</b>	14	-14	20		20		150	<b>190</b>	<b>159</b>
Gulgambone	<b>490</b>	20					4		<b>4</b>	<b>4</b>
Dubbo	<b>30102</b>	20	-13	20		18			<b>38</b>	<b>25</b>
Gilgandra	<b>2822</b>	5			13	3			<b>16</b>	<b>16</b>
Other towns			-5	40		16			<b>56</b>	<b>51</b>
<b>Total</b>	<b>58438</b>	<b>180</b>	<b>93</b>	<b>98</b>	<b>39</b>	<b>100</b>	<b>33</b>	<b>320</b>	<b>591</b>	<b>515</b>

There are up to 70 additional jobs also available if the alternative industry proposals of the WCA are adopted and provided with appropriate Government assistance.

Timber industry losses (cypress and ironbark combined) are maximum potential losses after 2004 and may be less depending on value-adding and increased utilisation of smaller logs and thinnings.

# **BRIEFING 5: DETAILED INFORMATION**

## **CONSERVATION OUTCOMES**

The Brigalow Belt South bioregion covers part of the heavily cleared sheep/wheat belt of temperate Australia. Temperate woodlands are some of the most extensively cleared and heavily modified ecosystems in Australia. It is estimated that only 8% of their original extent remains.

Australian temperate woodlands have international significance because they encompass a globally unique bioclimate that does not occur anywhere else in the world.

More than 60% of the woody vegetation of the Brigalow Belt South bioregion has been cleared in the last 200 years. Furthermore, the existing level of reservation is extremely low with only 2.6% of the BBS protected in National Parks. It is a highly endangered and fragmented bioregion.

Plants and animals of the BBS have been subject to some of the highest rates of decline and extinction in Australia. It is believed that 17 mammals are now extinct in the region, more than 40% of all vertebrate fauna are recognised as being at risk, and more than 50% of plant species in the region are of conservation significance. At least 42% of ecosystems are considered to be rare, endangered or subject to severe decline and 80% of ecosystems are poorly reserved.

Woodland birds of the sheep/wheat belt, including the BBS, are now experiencing a wave of regional extinctions with more than 60 species, or 25% of all woodland bird species, recognised as threatened or declining and many once common birds now rapidly disappearing.

The Brigalow Belt South region is critically important because it contains two of the largest patches of temperate woodlands left in Australia. These are the Pilliga and Goonoo State Forests. They represent a vital opportunity to protect large areas of temperate woodlands from ongoing degradation and damaging practices.

There are no alternatives to protection of these areas. Their size and conservation value makes them completely irreplaceable within Australia's temperate woodlands for the opportunity which they provide.

One of the most threatened elements of biodiversity on public lands in the Brigalow Belt South are hollow-dependent fauna and the species which prey on them. It is expected that the next big wave of extinctions will be of hollow-dependent fauna. The process is already evident in the BBS with major declines and localised extinctions in Ringtail Possums and other arboreal mammals. More than 70% of woodland fauna use hollows, compared with only 42% in forests. They are one of the most critical habitat resources for survival of fauna populations in the region.

## **RESERVE PROPOSAL**

- This proposal provides a much better chance of survival for the 533 animal and bird species, 2705 plant species and 115 ecosystems that occur in the region than do any of the Government options (see Graph 1).
- It is the only reserve option that proposes reserves large enough to protect viable populations of threatened animal species and that will ensure a future for the 70% of woodland species that use hollows in old ironbark trees.

- The proposal includes:

A large **National Park in West Pilliga** that will protect floristically rich Box and Ironbark woodlands and promote the survival of the largest Barking Owl population in NSW. It is the most critical fauna habitat in the region and will significantly improve the chances of survival for at least 48 rare or threatened animal species. West Pilliga is part of the Pilliga Outwash province which has the highest vertebrate diversity of any province in the BBS and the highest number of currently declining species. This province is completely unrepresented in the reserve system and increased representation is critical to survival of fauna in the region. A recent report to the NPWS has identified the Barking Owl population of the Pilliga Outwash as having national conservation significance, and has recommended the formation of a reserve covering 50,000 hectares to 100,000 hectares of the Outwash to ensure the survival of the Owl.

A large **State Conservation Area in East Pilliga** that will protect wilderness values, the endemic Pilliga mouse and the major hotspot of plant species diversity in the region.

A new **Goonoo National Park** that will protect the largest and most diverse stand of ironbark woodland left in NSW and provide a refuge for at least 236 animal and 284 plant species including the Malleefowl, Glossy Black Cockatoo and Eastern Pygmy Possum.

A large **Bebo National Park** that protects 3 animal species which do not occur anywhere else in NSW; the Zig Zag Gecko, Dunmall's Snake and Delicate Mouse.

**A large number of smaller National Parks** scattered throughout the region that will conserve critical vegetation remnants in heavily cleared landscapes. These will protect 41 rare, endangered or vulnerable ecosystems including several endangered ecological communities (such as Grassy White Box Woodlands) and up to 333 animal species and 693 plant species.

## COMPARISON WITH GOVERNMENT OPTIONS

- The major problems with the Government options are that they were developed without due reference to conservation planning principles and they have ignored critical conservation issues such as forest condition, population viability and the level of ecosystem threat.
- The Western Conservation Alliance was aware of these deficiencies and conducted a detailed literature review and a scientific critique. It then developed its own Conservation Planning (C-Plan) database which incorporated information on those factors that was not considered by the agencies. This database has been used to design the current proposal.
- It explicitly aims to protect the ecosystems which are most threatened by unsustainable logging, such as Narrow-leaved Ironbark ecosystems. Government options do not adequately protect such ecosystems.
- It is designed to maximise the chance of fauna populations surviving into the future by building large, spatially sound reserves that protect core fauna habitat.
- It aims to protect productive areas where fauna habitat is optimised and species are more abundant. Government options do not adequately protect such habitat.
- It has utilised detailed disturbance and forest structural information to inform placement of reserves and protect the most important areas. Government options miss such critical areas. Therefore, this option provides much improved conservation outcomes with only a small increase in area.

## **ABORIGINAL OWNERSHIP OF NATIONAL PARKS**

This option includes an Aboriginal owned Terry Hie Hie National Park. In October 2002, a group of Aboriginal people whose ancestors lived at Terry Hie Hie proposed that seven State Forests and one Nature Reserve become a new Terry Hie Hie National Park, and that the National Parks and Wildlife Act be amended to list this new National Park on the schedule for Aboriginal ownership. There is a well-defined Aboriginal group originating from Terry Hie Hie. This should ensure that names are entered on the 'register of Aboriginal owners' and a Board of Management is formed. In May 2003 Moree Local Aboriginal Land Council supported this proposal.

Examples of the cultural significance of Terry Hie Hie include: the old Terry Hie Hie Mission; axe grinding grooves; two Aboriginal cemeteries; a rock engraving site; a ceremonial ground; numerous other sites; a pioneering land claim; hunting and gathering lands; the traditional country of the Terry Hie Hie people. Aboriginal ownership of a new Terry Hie Hie National Park would bring significant environmental, cultural, social and economic benefits to the community of Moree and district.

The lands involved in this proposal are:

Mission SF	1,266 hectares
Terry Hie Hie SF	5,867
Irrigappa SF	899
Campbell SF	461
Montrose SF	1,503
Berrygill SF	2,721
Courallie SF	2,784
<u>Gamileroi NR</u>	<u>118</u>
TOTAL AREA	15,619 hectares (38,595 acres)

Courallie State Forest is in Nandewar Bioregion while the other listed lands are all in the Brigalow Belt South Bioregion. All were included in the BBS Assessment studies.

The National Parks and Wildlife Act provides for Aboriginal ownership of National Parks that "are of cultural significance to Aboriginals". The Regional Assessment established the cultural significance of the Terry Hie Hie lands. Therefore, an amendment to list Terry Hie Hie National Park in Schedule 14 of the National Parks and Wildlife Act can be done without any further significance assessments under Division 7 of Part 4A of that Act. There are precedents for such an approach including Biamanga National Park which was added in 1998 as part of the package of legislation to implement the Eden Regional Assessment, and Gulaga National Park which was added as a result of the Southern Regional Assessment.

## **OTHER ABORIGINAL INTERESTS**

Western Conservation Alliance will support other proposals from Aboriginal groups for involvement in conservation and sustainable forestry. WCA will support the option of Aboriginal ownership of National Parks for land of cultural significance where this is the aspiration of local Aboriginal people.

In addition to the employment opportunities created by Aboriginal owned National Parks, the employment target in this proposal is that 25% of jobs in the public sector created by the WRA decision be Aboriginal identified.

# SFNSW WOOD RESOURCES PROJECT

## INTRODUCTION

- The SFNSW timber project for the Brigalow Belt South was mismanaged. The \$900,000 that was spent by the project failed to deliver the agreed outputs in time for negotiations and options development.
- The estimates of timber volumes by SFNSW are unreliable and do not provide sufficient accuracy to warrant long-term timber contracts being signed. Any contracts signed would likely incur a major compensation risk.

## SFNSW TIMBER MODEL FAILURES

- SFNSW simply could not get a timber estimation model to run for the BBS.
- A total of 6 separate major components of the original model were found on inspection to be incorrect, unworkable or incomplete: mortality model, recruitment model, yield simulator, net harvest area modifier, mortality modifier, assessment of volume on other tenures. There remain serious question marks over a number of other components.
- As a result of these failures the model would not 'run', and neither SFNSW nor stakeholders, were able to use it to calculate the impact of reserve options on wood supply.
- Documentation was non-existent, inadequate, very late and/or incomplete. What has been provided has been 3 to 9 months late and only provided after constant requests.
- Documentation is still required for at least 5 major components: tree proportionment model, yield simulator, yield scheduler, assessment of other tenures, ironbark taper model. It should be noted that SF and industry stakeholders require a high level of documentation for conservation projects. It would appear they are unwilling to apply the same standards to SF work.

## THE 'QUICK AND DIRTY' REPLACEMENT

- SFNSW came up with a 'quick-fix' when the \$900,000 model didn't work. This was a very basic approach which used the standing timber volume from the inventory and did not include any of the growth, recruitment or mortality data. It is founded on a baseless assumption that the current standing volume divided by a factor of 50 is the rate at which the forest grows each year.

## UNDERLYING FLAWS IN ALL APPROACHES

The magnitude of the failures of both the original model and the 'quick-fix' is best explained with reference to three examples as described below. There are likely to be many more such problems which have not yet been uncovered.

1. The quality of ironbark timber is essential to the end uses to which it can be put. However, SFNSW have combined high and low quality into a single category and called it high quality ironbark. This is extremely misleading and results in massive over-estimation of the actual 'high quality' ironbark resource.

2. The future of cypress logging in the region is entirely dependent on the post 1950's regeneration. The myxomatosis induced reduction in rabbit numbers enabled significant cypress regrowth for the first time in 50 years. SFNSW staff have told us that the 1950's regrowth is only 6cm diameter at breast height (dbh), but the SFNSW timber inventory did not measure trees less than 10cm dbh.
3. One of the major problems that was uncovered by the NPWS occurred in the mortality model. It was found that the model was 'killing' more than 75% of trees over a 100 year period.

## **CURRENT SITUATION**

- SFNSW have recently claimed to have the model working at last. To get the model to 'run', SFNSW have simply replaced data with 'assumptions' that are completely untested and often untestable.
- At least the data showed that the models were unsound. The assumptions are designed to hide that fact. The assumptions have delivered yet another level of uncertainty and obscurity.
- They have still not delivered or demonstrated a 'working' model to any stakeholder.
- The WCA has a list of outstanding requests for timber supply information from SFNSW to enable us to make an informed assessment of the actual resource available, and to inform the development of reserve options. Much of this information has still not been provided almost a year after it was first requested.
- The new SF 'quick fix' model has not been accepted or agreed by stakeholders and has not been provided for our use. It does not provide any basis on which to provide 20 wood supply agreements to the timber industry. We still have not seen any working model.

# IRONBARK LOGGING

## BACKGROUND

- Ironbark logging is one of the most ecologically damaging practices in the region. More than 70% of Australian species which use hollows are woodland species. These species are dependent on hollows that form in old ironbarks for shelter, nesting and roosting.
- Many of these species, especially Ring-tailed and Brush-tailed Possums, are now almost extinct on State Forests in the region because there are so few old ironbarks remaining.
- More than 6.4 million sleepers have been cut from the region since sleeper-cutting started in the early 1900s. There was no regulation of ironbark logging for sleepers and the resource was heavily depleted by the early 1980s. More than 800,000 tonnes of sleepers have been cut from the region.
- In the early 1980s SFNSW management plans predicted the ironbark resource would be completely exhausted by the year 2000, and proposed reductions in yield.
- However, despite the parlous state of the resource, in 1980 the Insultimber ironbark mill at Baradine was awarded a 20 year supply agreement for 20,000 m<sup>3</sup> per annum of ironbark sawlogs which ended in 1999. The Insultimber operation principally consisted of 'cleaning up' all the big old defective (habitat) trees which were not useful to sleeper cutters.
- Current ironbark logging is also targetting potential recruitment habitat trees, which compounds the problem and the time it will take for sufficient hollows to form to allow many hollow-dependent species numbers to increase.
- The threatened species licence is severely deficient and fails to adequately protect ironbark habitat or the threatened species which depend on it. Hollow-bearing trees are not exempt from logging, there are poor levels of recruitment tree protection and little or no protection of old forests.
- Ironbark ecosystems are now severely degraded as a result and ironbark logging in the region represents one of the very worst examples of over-exploitation of a finite and very slow-growing resource.

## IRONBARK INDUSTRY IN THE REGION

- There is only a single large ironbark mill in the BBS region. This is the Gallagher Insultimber mill at Baradine which employs 13 people and currently utilises approximately 5000-7000 m<sup>3</sup> per annum which has been provided as a parcel sale over the last 2 years.
- There are a few, scattered small ironbark operations which mostly use less than 300 m<sup>3</sup> per annum each, supplied as parcel sales tendered on the market (SFNSW 2002). According to SFNSW, there are less than 8 people employed in these mills which have a total supply of 2,850 m<sup>3</sup> per annum.
- A further 1,750 m<sup>3</sup> per annum is provided as parcel sales for hardwood fenceposts which may entail approximately 7 jobs. Most hardwood operators also get significant additional volumes from private property in the region.

## **PROFILE OF GALLAGHER PTY LTD**

- Gallagher Insultimber produces electric fence droppers and posts for the electric fence post producer Gallagher Pty Ltd. The Insultimber mill is a partnership between Gallagher Australia and New Zealand. Gallagher Pty Ltd began in New Zealand and expanded to Australia and now has a subsidiary in the USA.
- Gallagher claims to be the electric fencing market leader in both the USA and Australia with over 20% of the electric fence market share in the USA and 62% of the market in Australia. It claims to employ over 100 people with representatives in over 100 countries.
- Gallagher prides itself on its R&D capabilities and claims to have invested millions of dollars to employ a 'team of highly qualified engineers who design and develop products using leading edge computer aided design and engineering tools'.

## **ALTERNATIVES TO IRONBARKS POSTS AND DROPPERS**

- All other electric fencepost companies use high density polyethylene (HDPE) for electric fence droppers (Westonfence, Kiwi Fence). Gallagher itself already produces fenceposts out of steel and pine and would not be unduly affected by the interruption of its hardwood post line.
- Gallagher Pty Ltd is well situated to adjust to an end to ironbark logging in the region and to replace ironbark posts and droppers with these alternatives.
- The small mills and fencepost operators will rely more on existing private property supplies if State Forest supplies are no longer available.

# **FIREWOOD COLLECTION**

## **INTRODUCTION**

- Firewood collecting causes severe degradation of woodland habitats. It has recently been assigned a preliminary listing as a threatening process under the NSW Threatened Species Act 1995. The Western Regional Assessment must address it as one of the primary threats in the region.
- Firewood collection involves 13,250 m<sup>3</sup> per annum of live and dead hardwood timber removed from State Forests in the region and additional large volumes from private lands and other Crown tenures.
- There are 14 commercial firewood operators which use State Forests in the region and firewood is supplied to the Sydney and Canberra markets and for domestic use in the region.
- We propose a phase-out of firewood collection from public lands in the region by December 2010. This can be done implementing an Integrated Firewood Replacement Strategy, the key components of which are outlined below.

## **FIREWOOD REPLACEMENT STRATEGY**

- The Strategy would involve the following aspects which each create jobs as well as mitigating the negative environmental impact of firewood collection:
  1. The establishment of briquette manufacturing plants at Gunnedah and potentially Baradine where the largest sawmill residues are produced. Briquettes can be manufactured from sawmill waste and sold as a heating fuel. They have the potential to replace a large segment of the domestic firewood market and to export to larger centres. Such a plant was established in the Eden RFA and now sells briquettes to Melbourne. RACD (2002) indicates that 40,976 m<sup>3</sup> of sawmill residue is produced each year in the region. The plants could be either a small business, an extension of the sawmill, a co-operative or a CDEP initiative.
  2. Firewood woodlot establishment using irrigation waste water targetted in saling priority areas or sites of rising water tables. Existing studies indicate that hardwood woodlots can grow at rates of up to 2m<sup>3</sup>/ha/year in western areas and may produce volumes within 12 years. Further analysis of the economics of farm woodlot establishment to be conducted concurrently. Emphasis on selective harvesting of woodlots for firewood rather than a clearfelling approach which has negative soil, water and salinity implications.
  3. Use of thinnings from existing North Coast plantations to supply firewood markets in Sydney and Canberra. SFNSW have conducted an analysis of such an approach in the Armidale area, and the results indicate that under optimal conditions with appropriate mechanisation, this could replace a significant proportion of the current firewood market from the BBS region.
  4. There is wide support for a cypress thinning program in the BBS region on both public and private land. This is aimed at improving future yields of cypress by increasing growth rates on remaining stems. It would potentially produce significant volumes that could be used for fuel ie briquettes.
  5. Cash incentives for households within the BBS region who move from solid fuel combustion heaters to other forms of heating. This could be extended to other centres over time. There would be considerable health benefits if sufficient people could be encouraged to no longer burn wood for heating. In many towns woodsmoke is a major contributor to respiratory illness.

## **CONCLUSION**

- That this Integrated Firewood Replacement Strategy (IFRS) is legislated for and that staged reductions of 20% of current volumes from State Forests are implemented each year for the next 7years whilst the new sources of fuel are implemented.
- That the IFRS is funded at \$1 million dollars recurrent and implemented by the National Parks & Wildlife Service in conjunction with its implementation of a Threat Abatement Plan under the Threatened Species Act.
- The briquette manufacture, woodlot establishment and management and cypress thinnings may be well suited for control by Aboriginal Community Development and Employment Programs (CDEP) which are currently engaged in firewood collection in the region.
- Such an approach is urgently required as an example of an integrated approach to solve the problem of firewood collection in fragile, native woodlands which could then be applied in other regions.

## **CYPRESS LOGGING**

- Current volumes of cypress production in the region are significantly greater than any other time in history and significantly greater than all previous estimates of sustained yield (see Graph 2).
- SFNSW claim that the amount of volume available as sustained yield is almost exactly equivalent to the allocation. This means that any reserves whatsoever causes a reduction in allocations to the industry.
- The volumes required from State Forest areas have been inflated in a number of ways; they include short-term parcel sales which are not a 'commitment' as such, they do not include volumes obtained from Crown leasehold lands, and they have recently been increased over volumes obtained in the past.
- The actual volumes which were logged in 2001 are significantly less than the allocations claimed by SFNSW. This means that any reserve outcome based on SFNSW claims instead of actual volumes, exaggerates the true impact on the timber industry.
- If the impacts of reserve scenarios on the industry are considered in relation to actual yields, rather than the 2002 inflated 'allocation', then they are significantly less than currently claimed by SFNSW.

## **CYPRESS INDUSTRY IN THE REGION**

- The cypress industry consists of 12 mills that take timber from the region. The volumes to mills vary from less than 500 cubic metres per annum to 21,600 cubic metres per annum. The industry claims to employ 190-210 people in the region.
- There are 4 ways in which the timber is provided to various mills: parcel sales – sales tendered on the open market annually; quota – annual allocations supplied to mills; and long and short term Wood Supply Agreements.

## **HISTORICAL YIELDS**

- Historical yields have averaged 40,000 m<sup>3</sup> per annum and current yields are 80,000 m<sup>3</sup> per annum.
- The current yields are clearly unsustainable. The resource has been and is being heavily over-exploited with major implications for ecosystem health and the future of the industry and the communities who have depended on it.

## **CYPRESS ALLOCATIONS**

- Some mills take timber from both inside and outside the region. To get a complete picture of the industry it is necessary to consider both the BBS region itself and the 'larger region' from which volumes are produced.
- SFNSW claim that current allocations from the BBS are 72,560 m<sup>3</sup> per annum and from the 'larger BBS' are 80,860 m<sup>3</sup> per annum.
- However, actual volumes removed per annum are significantly less than the claimed SFNSW allocation. For the 'larger BBS region', the actual volume removed in 2001 was only 66,305 cubic metres, which is only 86% of the allocation claimed by SFNSW for that year. And the

average volume logged each year for the last 8 years is also only 86% of the claimed allocation.

- When volumes from other crown timber lands are also taken into account, the actual volume supplied from State Forest estate is only 82% of the allocation claimed by SFNSW.

## CONCLUSION

- The actual volume removed by the industry from State Forest tenures in the region is approximately 59,499 cubic metres, rather than the 72,560 cubic metres claimed. Therefore, the sustained yield is actually significantly greater than the supply to industry.
- As a result, the real impact of reserve options on the industry will be much less than claimed by SFNSW.
- For example, this proposal results in a volume of cubic metres per annum left for the industry. This is only 40% less than the actual yield of 59,499 cubic metres. It is a much smaller impact than if the industry is taken to be the claimed 72,560 cubic metres, rather than the actual 59,499 cubic metres.

<b>Impact on Cypress Supply</b>	<b>BBS Region (m<sup>3</sup>)</b>	<b>'Larger Region' (m<sup>3</sup>)</b>	<b>Option C %</b>	<b>Option D %</b>	<b>Option E %</b>	<b>This Proposal %</b>
SFNSW Claimed Allocation	72,560	80,860	32%	40%	50%	50%
<b><i>Revised Allocation/Impact</i></b>	<b><i>59,499</i></b>	<b><i>66,305</i></b>	<b><i>21%</i></b>	<b><i>28%</i></b>	<b><i>40%</i></b>	<b><i>40%</i></b>

## **THREATENED SPECIES LICENCE**

- The provisions of the current broad Threatened Species License for the BBS are demonstrably inadequate to protect threatened species or their habitat.
- This is particularly crucial because there has never been an Environmental Impact Statement in the BBS bioregion for forestry operations. Benchmarks for baseline levels of habitat protection for fauna and flora have never been established.
- The levels of tree retention for ironbarks are inadequate, being only 4 per hectare in normal harvest areas and 6 in modified harvest areas. This level of retention will not adequately preserve future habitat for fauna in the long-term, given the acknowledged level of natural tree density for the area of at least 20 mature trees per hectare (see below).
- The levels of tree retention for cypress are also inadequate, with the benchmark for retention (>50cm) being set so high that it generally means that no large trees are retained. It is generally the smaller cypress that are retained to meet the current conditions.
- Extra hardwood species have been included in the most recent license, such as Broad-leaf Ironbark, Blue-leaf Ironbark, Black Pine, Mallee, Bloodwood and Bull Oak. The minimum habitat retention requirements for areas containing these species have never been assessed and their importance for fauna is largely unknown.
- Protection of mature tree hotspots, which are the oldest remaining stands of forest left in the region, is grossly inadequate. The definition of 'mature tree sites', as they are called, is so far-fetched that almost no natural areas meet the requirements and important hotspots are being logged. A much improved definition is urgently required to protect the oldest forests left in the region.
- Conditions for the protection of threatened species are inadequate, and many of them are only triggered if the species are found during pre-logging assessments which are cursory and largely unsuccessful in locating any species.
- The buffer for 1<sup>st</sup> order streams (15 metres) does not even meet recognised minimum standards established by DIPNR.
- An urgent overhaul of the Threatened Species Licence for BBS is required which results in much improved constraints on logging and includes an adequate assessment of all areas of State Forest in line with recognised EIS standards.

# CROWN LEASEHOLD LANDS

## INTRODUCTION

There has been a claim made that crown leasehold areas in the Brigalow Belt South (BBS) bioregion could provide large areas of National Parks which would decrease reserves required from State Forest areas.

## CURRENT SITUATION

An analysis of tenures and conservation values in the BBS region is provided in Attachment 1. It shows that crown leasehold areas are simply not viable as replacements for reserves from State Forest tenure for the following reasons:

1. Crown leasehold areas can only be obtained by voluntary acquisition of the leasehold interests by the NSW Government. Any such acquisition would be piecemeal and would take decades to implement.
2. The reservation of crown leasehold does cause serious antagonism amongst landholders and is usually stridently opposed by farming interests.
3. The BBS is one of the most poorly reserved bioregions in NSW and Australia. Five of the seven provinces have less than 1% of their land area in reserves. Vegetated crown land and State Forest land in these five provinces will be required to prevent further extinctions in the region. It is not a case of one or the other; both tenures are urgently needed for conservation.
4. Crown leasehold in the BBS region has been heavily cleared and only 29% of leasehold areas (198,535 hectares) are now vegetated. In sharp contrast, some 99% of State Forests (579,486 hectares) in the region are vegetated.
5. Crown leasehold is also distributed in very small, widely scattered patches. For instance, vegetated crown leasehold in the BBS region consists of 5,485 distinct patches of vegetation with an average patch size of 34 hectares. In contrast, there are 186 patches of State Forest in the region with an average patch size that is 100 times larger.
6. Heavily fragmented areas such as these leasehold patches are not only extremely expensive and problematic to manage, but they are also a much inferior conservation outcome compared to large blocks of State Forests. Many bird and animal species cannot survive in small isolated patches of vegetation. It is only the reservation of large blocks of State Forest that can now ensure the survival of these species.
7. The major resource/conservation conflict in the BBS is in the Pilliga Outwash Province which includes north and west Pilliga. Thirty-five percent of this province is comprised of vegetated State Forest whilst only 2.4% is vegetated crown leasehold. Therefore, crown leasehold cannot provide an alternative to the reservation of significant areas of State Forest in north and west Pilliga.

8. The conservation values of the State Forest areas and crown leasehold areas in the BBS are completely different. Ecosystems which are widespread on State Forests are virtually non-existent on crown leasehold areas. The best examples are the cypress/ironbark ecosystems of the Pilliga and the ironbark ecosystems of Goonoo.
  - There are 145,499 hectares of Pilliga cypress/ironbark ecosystems on State Forest in the BBS, and only 7,372 hectares on vegetated crown leasehold.
  - There are 68,543 hectares of Goonoo ironbark ecosystems on State Forest in the BBS, and only 11,021 on crown leasehold.
9. The condition of the vegetation on crown leasehold areas is largely unknown, although the extreme patchiness suggests it is in a very disturbed condition. It is probable that a large amount of is monoculture cypress regrowth on previously cleared land. The condition of the vegetation on State Forest areas is likely to be much more intact.

## CONCLUSION

In summary:

- The claim that large areas of crown leasehold can be reserved in the place of State Forests with similar resulting conservation outcomes is invalid.
- Crown leasehold is widely scattered in over 5,000 distinct patches of vegetation in the BBS, it would be impossible to manage, and costly and time-consuming to acquire.
- Less than 30% of crown leasehold areas in the BBS are vegetated, they have different conservation values from State Forests, and the most important and controversial ironbark/cypress and ironbark woodlands are virtually non-existent on crown leasehold.
- Therefore, the reservation of crown leasehold areas in the BBS region cannot replace the urgent need for large, immediate reserves from State Forests. The protection of large areas of State Forest is the only way the adequacy of any future reserve system in the western woodlands can be guaranteed.
- However, the on-going reservation of crown leasehold over time will be required to complement immediate reserves from State Forests, especially in the most poorly reserved provinces.
- It is recommend that a process for assessment, acquisition and reservation of crown leasehold is put in place subsequent to a reserve decision on State Forest tenures.

## ATTACHMENT 1 - ANALYSIS OF CROWN LEASEHOLD AND STATE FOREST TENURES AND CONSERVATION VALUES IN THE BBS REGION

### Vegetation Cover

- The total area of State Forest in the BBS region is 586,763 hectares. Approximately 99% of this area (579,486 hectares) is vegetated.
- In contrast, the total area of crown land and crown lease in the BBS region is 683,730 hectares. Only 29% of this area (198,535 hectares) is vegetated.

### Patch Size

- There are 186 distinct patches of vegetation in State Forests of the region. The average patch size is 3,116 hectares and the largest patch is 288,831 hectares.
- In contrast, there are 5,845 distinct patches of vegetation in crown lands of the region. The average patch size is 34 hectares and the largest patch is only 12,818 hectares.

### Conservation Values

#### Analysis by Province

- Table 1 below shows the percentage of each province which is National Park, vegetated State Forest and vegetated crown leasehold respectively.
- There are only two provinces where the area of vegetated crown leasehold is equal to or greater than that of vegetated State Forest. These are the Northern Basalts and Liverpool Range provinces.
- In the Northern Basalts, the State Forest area is far more valuable because it consists almost entirely of a single block of vegetation (Bebo State Forest) which provides a far superior conservation outcome to the widely scattered crown leasehold areas.
- In the Liverpool Range province, only 5.2% of the province is covered by crown tenures of all types, and clearly all of this land is ultimately required to prevent further extinctions in this heavily cleared province.

Province	Proportion which is NP	Proportion which is vegetated SF	Proportion which is vegetated Crown Leasehold
Pilliga Outwash	0	35.7	2.4
Liverpool Plains	0.1	3.8	1.7
Northern Outwash	0.1	0	1.2
Talbragar Valley	0.4	1.8	0.6
Northern Basalts	0.5	6.9	7.7
Liverpool Range	2.7	0.5	2
Pilliga	7	17.4	5

### Analysis by Ecosystem

- The table below shows the distribution of 7 of the most widespread and controversial ecosystems on State Forests of the region, compared with their distribution on crown leasehold.
- The first five ecosystems are the most common and widespread productive ecosystem types in Pilliga and the second two ecosystems are the most common ecosystems in Goonoo State Forest.

Ecosystem Number	Ecosystem Name	Area in Crown Tenures (ha)	Area on State Forest (ha)
64	Pilliga cypress/bull oak woodland	2924	38160
65	Pilliga grassy cypress woodland	806	29852
68	Pilliga cypress/box herb woodland	1880	33238
70	Pilliga west grass/herb cypress woodland	1016	39420
90	Northern Pilliga box woodland	746	4829
	<b>Pilliga SubTotal</b>	<b>7372</b>	<b>145499</b>
124	Goonoo ironbark woodland	2198	30618
130	Goonoo ironbark heath woodland	8823	37925
	<b>Goonoo SubTotal</b>	<b>11021</b>	<b>68543</b>

Datasets Used: DLWC layer provided as part of tenure layer on the 26<sup>th</sup> July 2002, woody vegetation layer provided during negotiations, JVMP extant vegetation layer.



**TABLE 3: CYPRESS MILLS AND TOTAL VOLUME ALLOCATIONS**

Mill	Location	Supply Area	BBS 2010	BBS 2004	BBS QUOTA	BBS PARCEL	BBS TOTAL	OTH 2010	OTH 2004	OTH QUOTA	OTH PARCEL	LARGER TOTAL
<b>Baradine Sawmilling</b>	<b>Baradine</b>	<b>Pilliga</b>	<b>20000</b>		<b>1600</b>		<b>21600</b>					<b>21600</b>
Gunnedah Timbers	Gunnedah	Inverell	4200				4200	2800				7000
Gunnedah Timbers	Gunnedah	Gunnedah			6800		6800					6800
<b>Gunnedah Timbers Total</b>			<b>4200</b>		<b>6800</b>		<b>11000</b>	<b>2800</b>				<b>13800</b>
<b>Lidoframe P/L</b>	<b>Narrabri</b>	<b>Pilliga</b>		<b>5000</b>			<b>5000</b>					<b>5000</b>
Ramiens Timber Co P/L	Dubbo	Pilliga		3500			3500					3500
Ramiens Timber Co P/L	Dubbo	Dubbo				1000	1000					1000
Ramiens Timber Co P/L	Dubbo	Gilgandra			1080		1080					1080
<b>Ramiens Timber Co P/L Total</b>				<b>3500</b>	<b>1080</b>	<b>1000</b>	<b>5580</b>					<b>5580</b>
Gulargambone Cypress	Gulargambone	Pilliga		3000	6780		9780					9780
Gulargambone Cypress	Gulargambone	Gilgandra			1000		1000			1000		2000
<b>Gulargambone Cypress Total</b>				<b>3000</b>	<b>7780</b>		<b>10780</b>			<b>1000</b>		<b>11780</b>
<b>Bingara Cypress</b>	<b>Bingara</b>	<b>Inverell</b>		<b>3720</b>	<b>1560</b>		<b>5280</b>		<b>2480</b>	<b>1040</b>		<b>8800</b>
<b>Gwabegar Sawmill</b>	<b>Gwabegar</b>	<b>Pilliga</b>			<b>7200</b>		<b>7200</b>					<b>7200</b>
BL&DA	Narrabri	Pilliga			3000		3000					3000
BL&DA	Narrabri	Inverell				780	780				520	1300
<b>BL&amp;DA Total</b>					<b>3000</b>	<b>780</b>	<b>3780</b>				<b>520</b>	<b>4300</b>
<b>Burns</b>	<b>Baradine</b>	<b>Pilliga</b>				<b>500</b>	<b>500</b>					<b>500</b>
<b>Austin</b>	<b>Quirindi</b>	<b>Gunnedah</b>				<b>400</b>	<b>400</b>					<b>400</b>
<b>Lowes</b>	<b>Cecil Plains</b>	<b>Inverell</b>				<b>300</b>	<b>300</b>				<b>200</b>	<b>500</b>
<b>Appalacian Log Homes</b>	<b>Emu Plains</b>	<b>Inverell</b>				<b>120</b>	<b>120</b>				<b>80</b>	<b>200</b>
<b>Tender</b>	<b>Baradine</b>	<b>Pilliga</b>				<b>1020</b>	<b>1020</b>					<b>1020</b>
<b>Grand Total</b>			<b>24200</b>	<b>15220</b>	<b>29020</b>	<b>4120</b>	<b>72560</b>	<b>2800</b>	<b>2480</b>	<b>2040</b>	<b>800</b>	<b>80680</b>

**TABLE 4: ACTUAL VOLUME OF CYPRESS SAWLOGS LOGGED IN THE  
'LARGER' BBS**

Year	CYPRESS VOLUME (CUBIC METRES)					Total
	Inverell	Gunnedah	Pilliga	Gilgandra	Dubbo	
1994	8743	6658	51754	4521	1734	75404
1995	6874	7910	45013	3310	1839	66941
1996	5509	7099	43354	5860	2114	65932
1997	2299	6608	53512	3605	1441	69462
1998	5305	9238	48473	7358	2303	74675
1999	5439	4312	49748	782	1604	63884
2000	8174	6466	51598	2428	725	71391
2001	12986	5821	45131	1850	1381	69170
2002 (ytd)	7241	4942	34799	679	1193	48854
<b>Average to 01</b>	<b>6916</b>	<b>6764</b>	<b>48573</b>	<b>3714</b>	<b>1643</b>	<b>69607</b>
<b>Claimed Allocation in 01/02</b>	<b>17800</b>	<b>7200</b>	<b>51600</b>	<b>3080</b>	<b>1000</b>	<b>80680</b>

# **BRIEFING 6: NANDEWAR ASSESSMENT**

## **INTRODUCTION**

- The Nandewar Western Regional Assessment is currently due to be finished at the end of 2004.
- Nandewar is very poorly reserved and it has been identified by the National Land and Water Resources audit as one of the highest priorities to consolidate the protected area system in Australia (1 of only 18 eighteen high priority bioregions).
- The Nandewar region has only 2.2% of land area in reserves, and 75% of the original vegetation cover has been cleared.
- It is an exceptionally high conservation value region which is particularly important for the large stands of endangered ecological communities, such as Grassy White Box, which it contains.
- The region includes 35,000 hectares of State Forest, whilst the adjacent Brigalow Belt South region encompasses 590,000 hectares.
- There are also significant areas of Vacant Crown Land which warrant secure reservation as National Parks subject to Aboriginal rights and interests therein.
- There are two timber mills which take timber from both Nandewar and the Brigalow Belt South. These mills are situated in Gunnedah and Bingara.

## **BACKGROUND**

- The deferral of logging from areas of the BBS which supply the Bingara and Gunnedah mills has resulted in accelerated logging in Nandewar. Attempts have been made by SFNSW to provide full supply to both mills from Nandewar only.
- This has caused conflict between the environment movement and SFNSW, and the end result has been a negotiation process to move logging away from the highest conservation value areas in Nandewar.
- This negotiation process has highlighted the fact that there is very little timber available in Nandewar. It has shown that large parts of Nandewar have no loggable timber whatsoever and that the future of the industry in the bioregion is in serious doubt.
- The few areas which do have timber volumes are some of the highest conservation value forests in Nandewar.
- The situation is exacerbated by the fact that there are no Threatened Species Licence conditions to control logging in the Nandewar region.

## **CURRENT SITUATION**

- Conservation values in Nandewar will be severely compromised if a reserve decision is made on the BBS soon, which then forces logging into Nandewar for a further 18 months at full intensity.
- The future of these two regions is inextricably linked, because of the supply of wood across the boundary to both the Gunnedah and Bingara mills.
- Nandewar is a very small area of forest which cannot sustain increased logging pressure and which has already been over-logged for many years.
- It is clear that a decision about the future of the Gunnedah and Bingara mills must only be made once, and that such a decision must address the impacts on both the Nandewar and BBS forests.

## **RECOMMENDATION**

It is recommended that:

1. The public land component of the Nandewar regional assessment is brought forward and a reserve decision is made concurrently with the BBS reserve decision. This should cover State Forest and Vacant Crown Land tenures.
2. The future of the Bingara and Gunnedah mills is decided once and for all at the time of this combined reserve decision.
3. The private land component of the Nandewar regional assessment is finished over the following 18 months, as a Stage 2 assessment to provide high quality biodiversity and resource data for Natural Resource Management.

## **TIMBER AND RESERVE ISSUES IN NANDEWAR**

### **BACKGROUND**

- Nandewar is part of State Forests Inverell Supply Zone. This supply zone includes the north-east portion of the BBS bioregion and the northern part of the Nandewar bioregion.
- SFNSW estimate that 60% of timber in the Inverell Supply Zone comes from BBS, and 40% from Nandewar. It goes to two mills only - one at Bingara and one at Gunnedah
- The Bingara mill has a three year wood supply agreement from the Inverell Supply Zone for 6,200 m<sup>3</sup> per annum which ends in 2004, and also receives up to 2,600 m<sup>3</sup> per annum as an annual quota allocation.
- The Gunnedah mill has a 10 year wood supply agreement for 7,000 m<sup>3</sup> per annum from the Inverell Supply Zone which ends in 2010.
- SFNSW claim that the current supply from the Inverell Supply Zone is 17,800 cubic metres.

### **HISTORICAL OVER-UTILISATION**

- The Management Plan estimated that if the 1980 rate of cut of 12,000 m<sup>3</sup> continued, then "harvesting of the economically available sawlog resource will be completed in something of the order of 10 years based on present resource estimates - 7 to 10 years in the Bingara Zone and 11-12 years in the Yetman zone (ie around 1990)".
- "Nevertheless, there should be some opportunity for a limited but continuing local industry to utilise a continuing long-term yield from the Area, although at a very much reduced rate" (p28).
- This opportunity would be facilitated by a phasing-down of the existing level of cut to a much reduced level, to prolong the period of supply from the existing economically available sawlog resource, and to facilitate a continuation of yield from continued growth of sawlogs in areas both suitable and economically available for long-term timber production (p28).
- Despite this warning, logging has continued for close to 20 years since that time and SFNSW now claim that the current allocation from the region is 17,800 m<sup>3</sup>. However, over the last 10 years, they have only been able to remove an average volume of 6,900 m<sup>3</sup> per annum. This indicates the parlous state of the resource and the absurdity of the current allocation.
- The extent of over-cutting is likely to be huge and the state of the current resource much degraded as a result.
- The overall area of forest in the Inverell Supply Zone has increased since this Management Plan was done. However, as further work below shows, this has not provided sufficient volume to make up for the depletion of the resource across the whole area.

### **SFNSW 1995 TIMBER ESTIMATE**

- SFNSW conducted a review of timber volumes in 1995 which indicated that they could continue to cut 15,800 m<sup>3</sup> per annum for the next 20 years.
- The WCA has obtained the State Forest estimates of current standing volume from this study and compared it with the volumes actually logged from the same areas over the last 10 years, and with recent advice provided by SFNSW about timber volumes.
- The volumes actually removed from all compartments logged in the last 10 years are on average only 50% of that estimated by SFNSW.
- The estimated volumes strongly contradict more recent advice from SFNSW. For example, there are 14 compartments which SFNSW have informed RACD and the WCA contain no loggable timber, and most of which they assure us will not contain loggable timber for another 80 years. The SFNSW 1995 timber study estimated a total of 65,574 cubic metres of harvestable timber in these 14 compartments.
- There are many other compartments which are also likely to contain 'no loggable timber' according to SFNSW. We have only found out about the compartments referred to above by specifically asking for a timber review, in an effort to find alternatives for logging.

- When all areas that have been logged in the last 10 years or which SFNSW have certified as containing 'no timber' are excluded, the estimated standing volume available per annum over the next 50 years is 11,174 cubic metres. Given the ratio of actual to predicted outlined above of 50%, it is probable that the actual volume available over the next 50 years is 5,590 cubic metres.
- This is approximately one third of the current allocation from the region, and would only be available if there were no reserve outcomes whatsoever from the WRA processes.
- SFNSW have informed the WCA that there are only 7 wet weather compartments, in total, that contain viable timber volumes across the entire region. However, even in the driest years (such as this year), they are confined almost entirely to these wet weather areas because most other areas remain inaccessible for most of the year due to soil properties (apparently). This too represents an obvious constraint for the industry in the region.

### **CURRENT SITUATION**

- The high level of historical over-cutting and the severely degraded level of the resource in the Inverell MA means that it is not possible to protect high conservation value areas and have an on-going timber industry in the Nandewar Bioregion.
- The current Inverell commitments are grossly and demonstrably unsustainable.
- The only way that SFNSW are able to get volumes from the area currently is to conduct 'release operations', which is a euphemism for clearfelling. They 'remove' the cypress tree layer entirely in such an operation and therefore get larger volumes out than selective operations. This has enabled them to continue on longer in Inverell than previously expected (it was introduced in the mid-1990s), but it has completely degraded the resource.
- It is clear from the Management Plan that the aim has been to cut out available timber supplies and then get out. As the volume has been cut out, successive mills have closed throughout the region (Yetman, Inverell, Bonshaw, Warialda).
- The timber supply has been almost entirely cut out and the current commitment is fanciful and unobtainable. The supply should have lapsed when the mills closed and it never should have been committed further to the Gunnedah and Bingara mills.

### **RECOMMENDATION**

- It is clear that the cypress timber supply in the Inverell Supply Zone is almost completely exhausted, with massive over-cutting that was honestly acknowledged by SFNSW in the 1986 Management Plan.
- SFNSW now deny that they are over-cutting in this region or that the future is in doubt. However, the evidence is unequivocal.
- SFNSW currently supply 17,800 cubic metres per annum, whilst a quick review of timber volume data indicates that only about 5,590 cubic metres is available.
- There is no future for a timber industry in this region, due to the unsustainable harvesting in the past. Logging the best remaining highest conservation value areas may provide a couple more years of supply, at best. Then the industry will finally die a natural death. But conservation values will have been permanently destroyed in the process.
- The next round of timber will not be available for another 80 years.
- Therefore, the WCA is proposing that the current supplies from the region are discontinued and all State Forest areas in Nandewar are now reserved as National Parks.
- The Gunnedah mill has a wood supply contract which can be met from Gunnedah and Pilliga supply zones, rather than Inverell. This will enable it to continue with a total supply of up to 7,000 cubic metres per annum. The Bingara mill should be discontinued.