

NSW Natural Resources Commission Red Gum Forests Assessment

Submission by Friends of the Earth Australia

October 2009

1. Indigenous rights & interests

General comments

- The report is good in some areas – the explanation of use & occupancy mapping (p95), cultural water use (p95), the need for access to country (p95) and recognition of autonomous Traditional Owner (TO) representative bodies (p92) are welcome.

Consultation / Engagement / Negotiation:

- It is pleasing that the report recognises TO representative bodies as well as land councils (p92)
- The report states “it is important that any possible forest agreement involves extensive consultation with Aboriginal communities in order to identify possible future opportunities, aspirations and desired outcomes for Aboriginal people.” (p93)
 - It is important to acknowledge that this is far from what has happened so far (see below).
 - Further, we believe that a negotiation rather than consultation is in order. TOs have not ceded their rights to country and there should be a negotiation process to restore recognition of these rights.
- ***The NRC should recommend an agreement-making process between the State of NSW and TOs in the Riverina bioregion.*** To protect TO rights and ensure a minimum standard of outcomes it may be advantageous to first establish a framework agreement with all TO representative bodies in the bioregion and the confederation Murray Lower Darling Rivers Nations (MLDRIN). A similar approach was proposed by TOs to Forests NSW during the EIS consultation at a workshop in Deniliquin on 23rd April 2009 (proceedings of this workshop may be obtained from MLDRIN).
- ***The NRC and the NSW government need to clearly communicate the process of Indigenous engagement going forward from here so that TOs are able to consider and plan their participation.*** Last minute consultations such as that which occurred this week put extreme stress on internal communication and decision-making processes and don't allow for full and considered participation by TO groups. This in turn risks an outcome without the legitimacy of informed consent, and undermines TO faith in government processes.
- The report says that it follows “significant work done as part of Forests NSW EIS” (p93) and summarises the consultation (p94) but completely misrepresents or ignores what TOs said to Forests NSW in that consultation. At the EIS consultation workshop of Thursday 23rd of April, 2009 TOs raised many issues including the following points, none of which appear in the NRC report:
 - there are a myriad of problems with logging: impacts on cultural values, access and use rights, ecological impacts and more;
 - TOs proposed an agreement-making process between Forests NSW and Traditional Owners, using a regional framework agreement and individual nation agreements;

- TOs expressed clear dissatisfaction with Forest NSW's rushed and inadequate Indigenous consultation that didn't allow for informed consent processes;
- TOs proposed a system of Indigenous forestry licenses which would see Forests NSW paying a royalty or fee to TO Nations

Land title and joint management

- It is surprising that the report doesn't mention the desire for Aboriginal Owned National Parks despite the fact that at least two TO groups are on the public record calling for these over many years.
- The report acknowledges limited opportunities for TOs to acquire land for "cultural and economic ventures" (p95) but fails to point out that the establishment of National Parks would permit them to be handed back under Part 4A of the *National Parks and Wildlife Act (1974)*.

Recommendations

Part 4A Parks are the simplest way to return tenure of these forests to TOs, however we would support other, more innovative approaches that allow for effective management of cultural landscapes.

Where Aboriginal Owned National Parks are requested by TOs, the NRC should recommend immediate listing of the Parks concerned in Schedule 14 of the National Parks and Wildlife Act (1974). Where this concerns new parks, their listing should be simultaneous with their creation.

- Contrary to advice we gave the Commission previously, there is in fact strong precedent for this approach, in the creation of Biamanga and Gulaga National Parks in South-Eastern NSW.
- The *National Park Estate (Southern Region Reservations) Act (2000)* simultaneously created the Gulaga National Park and listed it on Schedule 14 of the *National Parks and Wildlife Act (1974)*. It Clause 11 contained the provision that "the inclusion of Gulaga National Park in Schedule 14 to the National Parks and Wildlife Act 1974 by this Act is taken to have been made in accordance with the procedures provided in Division 7 of Part 4A of that Act."
- The *Forestry and National Park Estate Act (1998)* expanded Biamanga National Park and contained similar provisions adding it to Schedule 14 of the *National Parks and Wildlife Act (1974)*.

2. Grazing

The Report fails to assess impact of contemporary grazing practices.

The following extract from a literature review published by Friends of the Earth in 2002 summarises the impacts of grazing on the Barmah-Millewa Forest, much of which will be comparable to other red gum forests in the Riverina.

Extract from **Orthia, Lindy (2002). *Evidence from the scientific literature supporting the environmental component of the Yorta Yorta Management Plan for the Barmah-Millewa forest ecosystem*. Friends of the Earth Melbourne. pp 19-24**

Stock grazing (hereafter called simply 'grazing') is advocated as a fire prevention method based on the idea that cattle reduce the fine fuel load in the forest (DCE 1992). Whether there is any truth to this idea is unclear because it has not been well studied (Silvers 1993). The one study that has been carried out in Barmah Forest to address the question produced mixed results. In 1993, Silvers compared the levels of fine fuel load present in plots that excluded

all grazing mammals, including rabbits and kangaroos, plots that excluded only cattle and horses and plots that allowed access to all grazing animals, in eight different vegetation types in the forest. In only two vegetation types (moira grasslands, red gum with wallaby grass (*Austrodanthonia* spp.) understorey), cattle and horse grazing caused a significant reduction in fuel loads. In three vegetation types (giant rush, red gum with an introduced species understorey, black box woodland), grazing had no impact on fine fuel loads. In the remaining three vegetation types (grey/yellow box woodland, red gum with terete culm-sedge (*Carex tereticaulis*) understorey, red gum with terete culm-sedge/warrego summer-grass (*Paspalidium jubiflorum*) understorey), grazing by cattle and horses had a fuel reduction impact either equal to or less than the impact of kangaroos and rabbits (Silvers 1993). Silvers mentions a lack of replicates as a shortcoming of the study, so her results are inconclusive, but the study does not suggest overwhelmingly that stock grazing is a useful fire prevention tool. Moira grassland, for example, is not likely to be the site of major fires, since it is inundated for long periods of time and contains no woody species (Ward 1991). Red gum forest with a wallaby grass understorey, the only other vegetation type for which cattle grazing reduced the fuel load, is also probably unlikely to pose a major fire risk. In 1986, the New South Wales Forestry Commission stated that control burns were rarely carried out in red gum forests because fine fuel loads were generally low, the absence of shrubs made crown fires rare, and what fuel there was (fine grass and reed foliage) was usually green or flooded during high fire danger periods (cited in Parson 1991). Flooding itself may also reduce fuel loads before summer because red gum litter is broken down more quickly by bacteria and invertebrates when it is inundated (Leitch 1989). If kangaroos and rabbits can keep fuel loads down elsewhere in the forest, for example in the box woodlands where there is a shrubby understorey, then there seems to be no reason to keep cattle in Barmah-Millewa at all.

The reasons why it is considered necessary to prevent fires must also be questioned. Fires have been a natural and anthropogenic feature of the Barmah-Millewa landscape, and indeed of southeastern Australia, for many thousands of years (DCE 1992; ABRS 1999; Yorta Yorta Clans Group 2001). Many Australian plants rely on fire to reproduce (McIlroy 1978), and some Australian animals have a preference for habitat of a certain age-since-last-fire (Wilson 1990; Richards et al 1999). Since the forest ecosystem was shaped by the Yorta Yorta's regular burn regime, it is a strong possibility that biodiversity values at Barmah-Millewa would be best maintained by reintroducing fire to the system. Black box, for example, may benefit from fire: it has limited germination under a canopy but adult trees are fire tolerant (Parson 1991), so burning may encourage recruitment. Grazing, in contrast, significantly reduces seedling survival in black box (Parson 1991). The main reason why current managers wish to exclude fire seems to be to prevent losses to the timber industry (Forests Commission Victoria 1983; LCC 1985; DCE 1992). The LCC (1985) stated that control burns were an acceptable management practice in conservation areas. State Forests of New South Wales is currently investigating the use of control burns in assisting the recovery of native ground layer plants to recover from grazing effects (cited in Leslie 2000). Were Barmah-Millewa managed for conservation instead of timber production, there would be nothing to stop the implementation of a control burn program. The Yorta Yorta are interested in reinstating their traditional fire regime in the forest as a tool for ecosystem and species management (Indira Narayan, pers.comm.). While there is no reason to keep cattle in Barmah-Millewa, there are plenty of reasons to exclude them. It is implicitly understood by natural resource managers that grazing has a disturbing impact on natural environments. This is revealed in admissions that an absence of grazing in certain areas has left them "in a relatively undisturbed condition" (Forests Commission Victoria 1983: 27), that grazing is incompatible with conserving and protecting ecosystem components "in a relatively natural state" (LCC 1985: 16), and that grazing should be removed from environmentally sensitive areas (Leslie 2000), but this understanding has not led to the enforced removal of stock from native forest. Even when grazing impacts have been articulated explicitly, stock have not necessarily been removed. For example, the management recommendations for the protection of the superb parrot within Barmah-Millewa included the removal of grazing from box woodland within 10 kilometres of known parrot nesting colonies where significant ecological damage was likely to result (Webster & Ahern 1992). This would take in almost all box ridges throughout the whole forest system. Not only has this not occurred, but the box ridges are often the most heavily grazed sites in the forest, because they provide the only refuge during floods (Chesterfield 1986).

Grazing has been shown to impact adversely on many plant communities in Barmah- Millewa. Before European colonisation, the area included vast expanses of rushland dominated by cumbungi and common reed (Chesterfield 1986). The decline of those rushlands has been attributed to selective grazing by stock (Chesterfield et al 1984 cited in Fahey 1987; LCC 1985; Chesterfield 1986; MDBC 1992). Grazing may also be partially responsible for the encroachment of red gum on the moira grass plains. Ward (1991) found that grazing impacted on moira grass recruitment by affecting stem length and hence flowering ability, by disturbing plants before they can take root in the substrate after flooding, and by reducing photosynthetic ability, thus reducing stores for survival during the post-flood rapid growth period. The work of Dexter (1978) showed that cattle grazing promotes red gum regeneration by reducing the ability of other species to compete with red gum seedlings. Grazing can kill submerged plants by interfering with the oxygen supply to roots and tubers (Ward 1991), which may also affect native fish by simplification of their habitat (Koehn & O'Connor 1990). The presence of aquatic vegetation assists in the formation of microhabitats in the floodplain for juvenile fish as well as buffering against surrounding activities and providing nutrients to the system (Koehn & O'Connor 1990). The species-richness, stem densities, biomass and percentage cover of aquatic plant communities have all been found to increase when cattle are removed from a wetland (Robertson 1998). If vegetation is removed from a wetland community by grazing and is not given an opportunity to re-establish, it may be unable to return even after grazing is removed if soil seed banks are lost (Robertson 1998). The loss of habitat vegetation due to grazing has also been implicated in the demise of crustaceans (Horwitz 1990), waterbirds (Loyn 1989), mammals (Parson 1991), woodland birds (Leslie 2000), aquatic invertebrates (Robertson 1998), terrestrial invertebrates (Leslie 2000) and frogs (Healey et al 1997). This is because breeding habitat may be absent or depauperate or predation risks may increase without adequate shelter (Robertson 1998). Healey et al (1997) found that densities and diversity of frog species was correlated with the number of riparian plant species present at a site.

Chesterfield (1986) implicated grazing, particularly grazing in dry years, in the increased abundance of 'unpalatable' terete culm-sedge in the red gum understorey, the decline in cover and diversity of shrubs on box ridges, the disappearance of some plant species and the increased abundance of exotic plants. During a prolonged drought from 1913-1915, it was documented that stock removed all reeds, tussocks and small trees from the forest, along with the leaves from trees as high as they could reach (Hibbins 1991). Since plants have different abilities to recover from complete defoliation (Wilson 1990), it is not unlikely that such an event could cause localised extinctions. The Yorta Yorta Clans Group (2001) noted several recent declines in plant abundance. They stated that bulbine lily (*Bulbine bulbosa*), which used to be common in the forest, was not found in a recent survey, that ruby saltbush (*Enchylaena tomentosa*) was found in black box woodlands on roadsides outside the forest but not within the forest, that quandong (*Santalum acuminatum*) had disappeared from the forest altogether and that other plant species were only found in small populations within the forest (Yorta Yorta Clans Group 2001). They did not attribute this decline to a specific cause, but it is possibly the result of recent grazing pressure. In particular, the occurrence of ruby saltbush by the road, where cattle presumably could not access it, but not in the forest, where cattle could access it, suggests the influence of grazing.

As with her work on fuel reduction, Silvers (1993) obtained mixed results from her studies on the effect of grazing on understorey species diversity. In some ungrazed or non-ungulate-grazed plots, she found that the incidence of introduced grasses decreased while the diversity of native ground species increased after stock were excluded, with some species only occurring where there was light or no grazing (Silvers 1993). At other sites, removal of grazing prompted greater diversity of both weeds and natives (Silvers 1993). At still other sites, grazing decreased grass cover and increased the abundance of herbaceous species (Silvers 1993). The conflicting results of this study make it difficult on a superficial level to recommend that grazing should be stopped outright, since some native species appeared to benefit from it. However, it is highly likely that management practices such as control burns would have the same regenerative effects, since the plants in question evolved with fire and without ungulate grazers. Further studies are urgently required to investigate this question.

Generally, Silvers found a positive relationship between weed occurrence and grazing pressure (Silvers 1993). Grazing may increase weeds by increasing mineral nitrogen in the soil (Leigh 1974), by facilitating the spread of seeds or fruit in faeces (Leigh 1974; Ward 1991) or by substitution after impairing the competitive ability of native species, which are not used to the heavy, continuous grazing exerted by stock (Leigh 1974; Parson 1991). Some authors support only a partial reduction in stock grazing, arguing that a complete cessation of the practice would lead to an increase in weed abundance (Doug Robinson, pers.comm.). Again, this hypothesis has not been studied within Barmah-Millewa, so remains hypothetical. It should certainly be tested, and again, further studies are urgently required here. But since the conjectured benefits of continuing grazing – increased abundance of native herbaceous species in some vegetation types and decreased abundance of weeds – are unproven and somewhat speculative, and since they probably do not outweigh the costs of stock grazing, they cannot be used as a solid justification for continuing grazing in Barmah forest. Alternate methods of weed control such as the reintroduction of a near-natural and extensive flood regime, the reintroduction of traditional burning methods and manual removal of weeds should be investigated and trialed.

Grazing can also cause a decline in native animal species by competition (Parson 1991; Ward 1991) or disturbance (Webster & Ahern 1992). The superb parrot builds its nests in mature red gum but forages in box woodlands up to 9 kilometres away (Webster & Ahern 1992). The changes to vegetation structure and composition caused by stock-grazing on box woodlands seriously threaten the integrity of the woodlands, and thus the survival of the superb parrot (Webster & Ahern 1992). Occasionally, cattle compete directly with superb parrots for food. For example, the pale-fruit ballart (*Exocarpos strictus*) provides important fledgling food for the parrot, but is extensively grazed by cattle in dry years (Webster & Ahern 1992). Cattle may also disturb parrots and prevent them from foraging, thus increasing their overall foraging time (Webster & Ahern 1992). Many species of terrestrial vertebrate retreat to box ridges during floods, just as the cattle do, and they rely on box ridge integrity to survive (Loyn 1989). Cattle grazing on the box ridges may therefore adversely affect other vertebrate species by competition or disturbance.

Stock are also known to compact soils, increase runoff, erode riverbanks and increase siltation in waterways (Arnold 1977; Kauffman & Krueger 1984; Koehn & O'Connor 1990; Wilson 1990; Parson 1991; Robertson 1998; Robertson et al 1999). Crustacean populations have suffered as a result of this (Horwitz 1990), often by the direct destruction of burrows by pugging (McKinnon 1997). Other aquatic or terrestrial invertebrates may also suffer from habitat destruction (Ward 1991) or direct mortality (Robertson 1998) by pugging. Soil compaction can destroy mammal burrows or make soil unsuitable for burrowing (Parson 1991). Bank erosion and increased turbidity can make conditions unsuitable for platypus populations (Wharton 1970). Plants may have difficulty re-establishing where soils have been compacted, particularly wet soils (Arnold 1977; Naeth et al 1990). Grazing often removes the cryptogamic crusts that stabilise the soil surface, reduce leaching and support native organisms, further increasing runoff and erosion (Parson 1991). Some authors contend that the entire soil profile of Barmah-Millewa has been changed by stock from light loams to compacted clays (MDBC 1992).

Increased turbidity and siltation as a result of erosion, faeces and other bodily wastes, or because of reduction in filtration by aquatic vegetation (because of vegetation removal) can alter nutrient cycling processes (Ward 1991). It has already been noted that turbidity and siltation can change the food chain structure and function, faunal recruitment success and consumer composition by shifting primary production from macrophytes and biofilm to phytoplankton (Robertson 1998; Robertson et al 1999). Increases in nutrient loads can increase algal blooms (Robertson 1998). Faecal waste may also contain harmful microorganisms and cause disease in aquatic species (Kauffman & Krueger 1984; Parson 1991; Robertson 1998).

In all, stock grazing seems to have had a harmful impact on many native Australian ecosystems, including other wetlands (Arnold 1977; Silvers 1993; Finlayson & Davidson 1999), and including Barmah Millewa (Chesterfield 1986; Ward 1991; Silvers 1993). Some authors make the point that kangaroos are equally capable of defoliating an area in times of drought, and may therefore need to be periodically culled (Wilson 1990; Leslie 2000). The Yorta Yorta have a long history of managing Barmah-Millewa sustainably, that is, in such a way that all species maximise their chances

of survival into the future without impinging on the survival chances of others. Since part of their motivation in management is to conserve food species, they have a vested interest in maintaining healthy vegetation communities, and also in keeping kangaroo population sizes at a manageable level by culling, just as they have always done (Yorta Yorta Clans Group 2001). In environmental impact terms, kangaroos and cattle are different, because kangaroos impact on a narrower range of forage species than cattle and they don't degrade soil by trampling around water points (Wilson 1990). Clearly, before European colonisation, the Yorta Yorta had kangaroos and other grazing animals under control, or the lush vegetation of Barmah- Millewa at that time would not have existed.

One of the high priority actions to be undertaken as part of the current Barmah Management Plan (DCE 1992) is the monitoring of grazing impacts using reference areas for comparison. Since at least one of the reference areas no longer excludes cattle because the fences are in disrepair, this is clearly not possible. The evidence contained in this paper suggests that cattle do have an adverse impact on forest biodiversity, but the lack of long term monitoring experiments casts a level of uncertainty on this conclusion. However, this should not be used as an excuse to do nothing. Most current environmental legislation, at the international, national and state levels, contains a clause embracing the Precautionary Principle (Rogers et al 1997) (eg the Rio Convention on Biological Diversity 1992, the Inter-Governmental Agreement on the Environment 1992, the Environment Protection and Biodiversity Conservation Act 1999, the Victorian Biodiversity Strategy 1997). This principle states: "a lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation" (IGAE 1992 cited in Rogers et al 1997: 344). By applying the precautionary principle to the situation of Barmah- Millewa, legislators should agree that stock ought to be removed from the forest.

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Personal Communications

Ms Indira Narayan, Friends of the Earth; Dr Doug Robinson, Goulburn Valley Environment Group;

Grazing in times of water scarcity

The relative environmental impacts of stock grazing increase in times of drought or ongoing water scarcity. Given predictions of ongoing water scarcity in Riverina red gum forests the NRC should recommend a permanent ban on broadacre grazing in these forests.

The following extract from a report by botanist Doug Froud highlights the magnified impact of stock grazing in a time of drought.

Extract from **Froud, Douglas (2007). *Independent Scientific Review of the Barmah forest Ecological Vegetation Class condition assessment to assist cattle quota determination – (An assessment conducted by: Parks Victoria and Department of Sustainability and Environment on 26th October 2006)*. Pathways Bushland & Environment. p2**

It is under drought conditions that the native vegetation within the assessed area is least able to tolerate grazing by introduced herbivores. Similarly, it is during these periods that associated impacts on habitat values for native fauna are the greatest.

The relative grazing pressure on palatable species increases as they decrease in abundance. Higher grazing pressure can cause changes in the composition of the vegetation, with increased pressure on a wide range of species which have become rare for reasons including their palatability or vulnerability to trampling.

The range of native flora currently at very low population levels and potentially vulnerable to grazing under conditions of extreme drought includes wildflowers such as Creamy Stackhouse, Austral bugle, Flax-lily, native buttercup, purple Loosestrife, several species of native mint, several native daisies and a range of shrubs and semi-shrubs from box-ridge habitats.

The range of flora impacted by grazing also includes many species which would have been used by aboriginal traditional owners.

An effect of over grazing is a reduced diversity of native species and an increased proportion of the ground layer cover comprising introduced species.

...

This report concludes that:

Vegetation of the Barmah wetland system was not in a condition to support continued cattle grazing at the time of the assessment (October 2006). In light of prevailing dry conditions and ongoing grazing pressure, there is the very real possibility of serious long-term ecological damage.

The Precautionary Principle – applied in Victoria

The recent Victorian Environmental Assessment Council found that a precautionary approach needed to be taken with stock grazing, given the high likelihood of grazing impact in red gum forests but the high cost of assessing each specific site.

Extract from **Victorian Environmental Assessment Council (2008). *Final Report: River Red Gum Forests***

Investigation. p42

In most of these areas public land grazing continues largely on the basis that it is permitted unless it is demonstrated to be not ecologically sustainable or causing environmental damage. Stock grazing usually has significant impacts on ecological communities which have not evolved under such grazing regimes. Nevertheless, demonstrating specific environmental damage (or sustainability) at individual locations is costly, time-consuming and is consequently rarely done.

VEAC's recommendations on stock grazing in this investigation differ from the intent of earlier government-approved recommendations of the Land Conservation Council. LCC investigations have recommended that grazing be allowed to continue along public land water frontages provided it does not contribute to environmental damage...

This past approach, however, does not appear to have been entirely successful at preventing environmental damage through stock grazing. Although the LCC recommendations and Victorian River Health Strategy has provided some impetus for the removal of grazing as part of frontage protection programs undertaken by catchment management authorities and DSE, it has had little if any effect on grazing elsewhere even where it seems likely that damage is occurring. This is why VEAC is explicitly recommending in this investigation area grazing generally not be permitted other than to address a particular environmental or management problem, such as controlling particular weed infestations or maintaining a specific grassy habitat structure.

Grazing for ecological management purposes is unlikely to be required very often and when it is, the framework under which it is managed would be different from the current general approach. That is, domestic stock grazing should only occur to address a specific, explicitly-stated problem and with grazing-specific management planning and research, and control of stock numbers residing with the land manager. This is currently the case in Terrick Terrick National Park where, for example, sheep grazing is closely monitored and administered through short-term contracts rather than under licence or agistment permits. It should be noted that VEAC does not see broad-scale fuel reduction for fire protection as a specific problem for which domestic stock grazing is an appropriate management tool—the scientific evidence concerning the effects of grazing on broad-scale fire protection in the vegetation types of the investigation area is equivocal at best.

Grazing as an ecological management tool

In specific circumstances grazing may be an appropriate management intervention to deal with an identified environmental problem such as a localised weed infestation. The Victorian Environmental Assessment Council made allowances for this is recommendation R38. (p43) We would support such a recommendation provided it is under similar conditions to those outlined in the VEAC report, above.

Recommendation

The NRC should recommend that broadacre domestic stock grazing cease across public land in the Riverina. The only exceptions to this rule may be to address a specific, explicitly-stated ecological problem (such as targeted weed control) and with grazing-specific management planning and research, and control of stock numbers residing with the land manager.

3. Logging & Thinning

The Report fails to assess the ecological impact of logging red gum forests.

The ecological impact of logging red gum forests is well documented. In the interests of brevity we will mostly contain our remarks here to the issue of thinning. We support the submission of the National Parks Association of NSW in its discussion of logging more broadly.

Types of Thinning

- It is critical to distinguish between silvicultural thinning which is done to increase sawlog production and “ecological thinning” which may be carried out to “to achieve specified ecological objectives such as restoring a particular forest structure.” (VEAC, *Final Report: River Red Gum Forests Investigation*, p106).

Evidence based management

- There is currently no documented scientific evidence to support the use of thinning to relieve drought stress in red gum forests or achieve any other ecological objectives.
- When we got an intern to investigate the possibility of “ecological thinning” in red gum forests last year, she found very little published literature and none on red gum. Furthermore, she found there was not even agreement on a definition for the term, let alone what it might achieve in red gum forests.
- The VEAC River Red Gum Forests Investigation recommendation R43(c) stated **“that subject to the results of appropriate research and monitoring, ecological thinning of River Red Gum forests in parks and reserves be applied where required... Note: Production of firewood is not an objective. Where ecological thinning is approved, the operation will produce wood as a by-product which may be used as firewood where this does not conflict with ecological objectives, including the retention of coarse woody debris on the forest floor.”** (VEAC, *Final Report: River Red Gum Forests Investigation*, p45)
- Consequently, ecological thinning will only proceed in Victoria subject to a properly constructed scientific trial, and only as part of an integrated “Active Forest Health Program” managed by the Department of Sustainability and Environment and Parks Victoria. Importantly, the trial and the Program will involve a suite of management interventions such as fire, flooding, chemical use and the removal of disturbances likely to increase recruitment such as logging and grazing.

Recommendations

In the absence of a thorough bioregional ecological assessment we can only recommend that a precautionary approach demands a complete ban on red gum logging in the Riverina Bioregion.

The NRC should recommend that any “ecological thinning” must:

- ***only proceed following the results of a properly constructed trial involving qualified conservation biologists and Traditional Owners;***
- ***the trial must compare thinning with all other possible management interventions (eg fire, flooding, removal of disturbances likely to increase recruitment such as logging and grazing);***
- ***the trial must demonstrate a positive impact on ecological values and/or processes;***
- ***the subsequent thinning must done for the purposes of protecting, maintaining or enhancing the ecological values and processes of the area, and/or for the purposes of protecting, maintaining or enhancing the Indigenous cultural values and processes of the area***

From: John Williams [mailto:jwil3940@bigpond.net.au]
Sent: Monday, 12 October 2009 9:34 AM
To: Dianne Bentley; Peter Kanowski; Bryce Wilde; Alex McMillan; Brian Gilligan
Subject: Friends of Earth Melbourne Critique of RRG assessment

1 **Colleagues,**

2 **I attach comments from Friends of the Earth which give a critique of our assessment. It has documented what they see as good as well as our weakness from their perspective.**

John

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4 Our critique of the Riverina Bioregional Forest Assessment of River Red Gums and Woodland Forests Preliminary Report

5 1. Positive Findings

- The true number of jobs in the logging industry has finally been revealed as much smaller than previously claimed – only 157 full-time jobs reported after surveying the majority of timber businesses (including jobs on private land and in Victoria).
- The scale of the threat posed by river regulation and climate change has been reiterated – in areas such as Koondrook and Werai State Forests, close to 90% of trees are stressed or dying and vast areas of River Red Gum are predicted to die.
- A rigorous attempt has been made to quantify future water availability scenarios and the impacts of those on Red Gum health.
- The water-related decline in the timber industry has been exposed – even if no National Parks were created, the volume of timber available will be dramatically reduced as tree growth has plummeted due to water stress.

6 2. Key criticisms of the Report

- It does not apply or mention the precautionary principle and doesn't canvas the outstanding and well-recognised conservation benefits of National Parks.
- The assessment is markedly inadequate as far as forest ecology and systematic conservation planning is concerned. In our view, it does not constitute a Forest Assessment.
- With regard to forestry matters it is an unbalanced report with an apparent pro-logging slant.
- It does not provide any scientific assessment of the impacts of logging and other activities on forest ecology and does not refer to relevant literature.

- It does not review the national reserve criteria and how they will be met or provide a basis for any form of systematic conservation planning.
- It does not properly address 99.9% of biodiversity in the forests, restricting itself to a handful of threatened species, without considering biodiversity surrogates or regionally significant species.
- It overlooks the relevant policies on Climate Change and Biodiversity Adaptation, and selectively quotes the CSIRO (2008) report so as to avoid the key finding – that large protected areas are vital to the survival of species in a warming world.
- It does not identify refugia, corridors and linking habitats in the region.
- It fails to address the Federal EPBC Act 1999 in any substantive manner, or to indicate how the legal requirements of that Act will be met.
- It does not provide an assessment of the adequacy of environmental prescriptions on logging and fails to make any comparison with prescriptions applied in other regions.
- It makes no attempt to quantify the economic benefits from National Parks.

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For Strategic Thinking in Agriculture and Natural Resource Sciences
