



Respondent No: 546
Login: Blueridgehardwoods
Email: chris@blueridgehardwoods.com.au

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IP Address: 127.0.0.1

Q1. First name	Allan
Q2. Last name	Richards
Q3. Phone	██████████
Q4. Mobile	not answered
Q5. Email	██
Q6. Postcode	████
Q7. Country	not answered
Q8. Stakeholder type	Industry group
Q9. Stakeholder type - Other	not answered
Q10. Stakeholder type - Staff	not answered
Q11. Organisation name	Blue Ridge Hardwoods
Q12. What is your preferred method of contact?	Email
Q13. Would you like to receive further information and updates on IFOA and forestry matters?	Yes
Q14. Can the EPA make your submission public?	Yes
Q15. Have you previously engaged with the EPA on forestry issues?	Yes
Q16. What parts of the draft Coastal IFOA are most important to you? Why?	not answered
Q17. What parts of the draft Coastal IFOA do you think have a positive outcome on the management of environmental values or the production of sustainable timber? Why?	not answered

Q18. What parts of the draft Coastal IFOA do you think have a negative outcome on the management of environmental values or the production of sustainable timber? Why?

not answered

Q19. What are your views on the effectiveness of the combination of permanent environmental protections at the regional, landscape and operational scales (multi-scale protection)?

not answered

Q20. In your opinion, would the draft Coastal IFOA be effective in managing environmental values and a sustainable timber industry? Why?

not answered

Q21. General comments

This submission replaces the one sent on 21,June2018

Q22. Attach your supporting documents (Document 1)

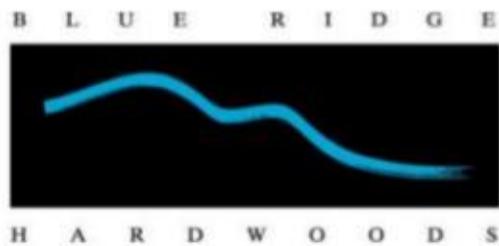
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Q23. Attach your supporting documents (Document 2)

not answered

Q24. Attach your supporting documents (Document 3)

not answered



The New Draft Coastal IFOA submission

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Introduction

The NSW and Regional Forest Agreements were to provide for a comprehensive, adequate & representative reserve system that would provide long term stability for forest based industries. Now the NSW Govt considers the draft Coastal IFOA provides a new balance between maintaining environmental values and wood supply by proposing a multiscale approach to retaining undisturbed habitat across the landscape.

The NSW Govt has lost focus on the objective of State Forests as a land type, which is to supply sawlogs of a particular volume, dimension and quality on a sustainable basis. The new Coastal IFOA prohibits forest operations from further areas of State Forests and restricts harvesting activities to areas supposedly set aside for timber production. Total native forest reservation in the Eden Region is now calculated at 87%, leaving an industry to exist on what remains 13%, of those areas that will remain available 11% is currently sub merchantable [see Table 3]. Increased exclusions cannot be absorbed on any pretext of maintaining timber supply as it may have been in the past or as it may be postulated elsewhere in NSW.

The draft Coastal IFOA, (in the Executive Summary), claims to be able to maintain wood supply and the State Government has committed to the process, claiming “no net change to wood supply” across all regions of the state. A landscape approach to conservation has the objective to disperse logging operations through time and space and thus reduce its environmental impact, but perversely, the increased area now permanently excluded from logging is contrary to this objective and will concentrate the logging in the remaining much smaller area. For the Eden Management Area more intensive harvesting, shorter rotations and smaller log sizes will inevitably result. How this may amount to “no net change to wood supply” for the timber industry at Eden and as future sawlog resource for Blue Ridge Hardwoods, or any other appointed customer, is a mystery which remains unanswered by the EPA, FCNSW, DPI and the NRC.

Blue Ridge Hardwoods is not aware that any attempt has been made to assess the impact of the draft Coastal IFOA at Eden, on the volume of Large Graded Sawlogs that would be committed to be available to industry on a sustainable basis, under this new regulation and its additional exclusions. Testing of the new Coastal IFOA only occurred on the mid north coast. The Natural Resources Commission in the release of its report to Government did not acknowledge Eden in any respect, nor allude to any issues that may occur.

1. Eden Sawlog Supply (potentially to Blue Ridge Hardwoods)

The present Wood Supply Agreement for Eden states that the Large Graded Sawlog¹ volumes are 21,160m³ p.a.

The new Coastal IFOA states, included in table 8 of Schedule 2, a yield of “no more than 23,000 m³ p.a.” of Large Graded Sawlogs .

FCNSW forecasts (10th Oct 2017) post 2018 yield from the Eden Regional Forest Agreement Area, to be;

- 5,037m³p.a. of large graded sawlogs over a 100 year horizon, or
- 7,743m³p.a. of large graded sawlogs over a 50 year horizon.

Increased exclusions and a more restrictive IFOA will inevitably achieve substantially less than the FCNSW assessment of 5,037 m³ p.a. One needs to also consider that in the past 20 years, FCNSW resource forecast estimates have always been optimistic and as history has exposed, 100% wrong.

The NSW Government’s commitment of “no net change to wood supply” under the new Coastal IFOA, is in complete contradiction. FCNSW most recent assessment of large graded sawlogs has decreased from 21,160m³.p.a. to only 5,037m³p.a., this might now be, if an assessment finally happens, as low as 3 – 4,000 m³ p.a. FCNSW also estimated that the Small Graded Sawlog supply, could be 10,000 m³ p.a., but that figure also needs reassessment under the new exclusions. Blue Ridge Hardwoods currently processes around 36,000 m³ p.a. with its current technology, reducing supply to only 14,000 m³p.a. will mean that it could run out in May, in any theoretical year.

The NSW Government declared the new Coastal IFOA regulations as a major improvement through efficiency and ease of implementation, but has failed to address the timber supply and other impacts in Eden. The improvement has nothing to do with the application of the rules in forest operations, but their ease and efficiency of enforcement for the regulator, the EPA and the shifting of responsibility for any infringement, from FCNSW, (the Land Manager), to the “front-line”, with the weight of responsibility now being carried almost totally by the Forest Operator, Contractor, Principal Licensee and FCNSW staff themselves. At the same time the NSW Government is legislating to increase penalties associated with the new draft coastal IFOA, that will target these individuals and companies, which have limited ability to pay on the spot fines and /or to have the financial resources to properly defend themselves in a court of law, against the weight of the government. This could be a disastrous strategy in trying to maintain a skilled and knowledgeable workforce and contractor base. It is also noted that similar penalties do not exist for the failures of Government and its agencies to supply contracted volumes to industry and meet its commitments for sustainability and community values.

¹ Large Graded Sawlog is the term (defined and specified) in the current category of sawlog used in the Blue Ridge Hardwoods WSA, and therefore the term used in this document. Blue Ridge Hardwoods does not accept any use of the term High Quality with respect to the sawlogs of Eden as they are not generally high in quality, nor of the standard of hardwood logs elsewhere in NSW, primarily due to defect, strength, durability and drying issues.

Recommendation

1. NSW Govt. and Natural Resources Commission (NRC) assess the impacts of the draft Coastal IFOA on large graded sawlog supply in Eden MA.
2. FRAMES be redesigned to be able to supply compartment level forecasts of large grade sawlog volumes.
3. FCNSW remain the responsible party for the implementation of any IFOA conditions on State forest lands.

1.1. Reduction in Sawlog size

The new draft Coastal IFOA has changed the definitions of sawlog for the Eden Region exclusively. Sawlogs in Eden are the poorest quality in the state, yet the specifications of its sawlogs have changed to make them appear superior to the quality of all other hardwood regions.

The royalties of Eden sawlogs are only about 60% of the value of other sawlogs across the state because of their poor quality, low recovery of suitable sawn material and known difficulty of drying. Eden sawlogs also carry significant higher defect allowances than other price zones. As a sawmilling company that has been in the business for 60 years and understands how the royalty system works, we are at a complete loss to explain why the definitions of the new draft Coastal IFOA are now promoting Eden sawlogs to be the best in the state, despite all its known faults and difficulties.

It is alien to advice provided to BRH from Nick Roberts, CEO of FNSW, on the 10th Dec 2009, which was in response to a meeting in which BRH highlighted the future issues with a smaller sawlog resource. He stated “I recognise the relative unknowns associated with processing the smaller highland species sawlogs and the difficulties this presents with identifying possible processing costs increases and alternative strategies for you to mitigate their impact on your business. This in turn, leads to the current challenges in setting of stumpage prices for your company for these sawlog products” and “I am keen to further develop our joint understanding of this future resource, particularly given the processing challenges and the unique nature of this emerging resource that you have identified.”

The sawlog descriptions defined in the new draft Coastal IFOA have changed from those included in the Wood Supply Agreements. The definitions in the new draft Coastal IFOA are summarised in table 1 below:

<i>Product</i>	<i>Length</i>	<i>Diameter</i>	<i>Toe Diameter</i>	<i>Butt Diameter</i>	<i>WSA definition</i>	<i>Coastal IFOA definition for Eden</i>	<i>Coastal definition for UNE,LNE &SouthCoast Regions</i>
Quota Sawlog	>2.4m	>= 40cm Centre diameter			Large Graded Sawlog	HQLarge	HQLarge HQSmall
Quota Sawlog (Eden Only)	>4.0m	<40cm Centre diameter	>30cm	>36cm	Small Graded Sawlog	HQLarge	
Ex Quota	>2.4m		None	<36cm	Salvage or Pulpwood	HQSmall	

Table 1 Product description described in the IFOA definitions

Smaller sawlogs cost more to process, require different equipment, technology and markets. In order to accommodate more areas of reserve for flora & fauna, the NSW Government must want BRH to absorb the additional cost of processing small sawlogs rather than growing the trees to an optimal processing size. The NSW Government apparently expects BRH, (or any other new investor), to spend capital on machinery that is able to saw smaller and smaller logs. Eventually it reaches a size that becomes physically impossible to saw anything, even with the best technology, but the definition has NO MINIMUM diameter.

The new draft Coastal IFOA definitions are also quite confusing, the definitions of both Sawlog and Pulpwood cover a range of products and overlap. Table 2 below shows the confusion:

Products	Sawlogs Definition	Pulpwood Definition
Poles, Pile, Girders & Veneer	*	*
High Quality Large Sawlog	*	
High Quality Small Sawlog	*	*
Low Quality Log		*
Pulpwood		*

Table 2 Product Classifications according to the IFOA definitions

According to the definitions a HQ Small Sawlog has no minimum diameter and could be pulpwood. Also a low Quality log does not include pulpwood, but pulpwood can include low quality log.

Recommendation

4. Change the definitions in the Protocols of HQL Sawlog to be the same as in the Blue Ridge Wood Supply Agreement (WSA).
5. Change the definition in the Protocols of Sawlog and Pulpwood
6. Change the term HQL to large graded sawlog as in the Blue Ridge Wood Supply Agreement (WSA).
7. Change the term HQS to small graded sawlog as in the Blue Ridge Wood Supply Agreement (WSA).

1.2. Retaining Future Sawlogs

The NRC report noted that increased protections at a landscape scale will result in an increase in harvest intensity in specific coupes. This practice is already happening in Eden Management Area. FCNSW have changed their practice of retaining “future sawlogs”.

The Harvest Plan conditions have changed from;

- “All future sawlog trees, capable of net merchantable increment, are to be retained for a subsequent cutting cycle.”

to

- “Crew to remove all merchantable stems not marked for retention”.

This current practice has signalled the FCNSW intention to intensify harvesting in Eden, decrease the size of sawlogs, (potentially to unmerchantable size), and increase production of higher quality pulpwood.

The NSW Government’s claim to be managing the forests sustainably as a timber resource and which supports a wide range of socio-economic and community values, must be questioned while FCNSW are currently cutting down some of the best regrowth, that have been determined predominantly as Future Sawlogs, and selling them as pulpwood for export. What has been and is happening within Eden Management Area, is a direct contradiction of nearly all facets of the Forestry Industry Roadmap, purported to be a “whole of Government” policy.

Recommendation

8. Retain all potential sawlogs for subsequent cutting cycle must be a condition included in each Harvest plan.
9. FCNSW must be trained in sawlog sustainability.
10. FCNSW & EPA to publish a strategy for achieving large graded sawlog sustainability, particularly for Eden MA.

2. The “New” Land Use Balance

2.1. More Reserved Forested land areas

There is currently about 62,00ha of protected habitat in the region, (38%) of State Forest land, known as “mapped exclusions” and in conjunction with existing National Parks makes a total of ~310,000ha. [See Table 3]

- Why is this not enough?
- Why are these hectares not working as habitat?
- Why would an additional 10-15,000ha now make the total hectares reserved be deemed as sufficient by the EPA?

The original FCNSW Management Plan (1982) created a system of Wildlife corridors linking Flora reserves (FMZs 1,2,3a), to National Parks, complimented by the alternate coupe logging pattern was already the “Landscape approach” hailed by the new draft Coastal IFOA document as innovative. The later reservation of areas of Ridge & Headwater, Old Growth, Rare Forest Ecosystems, Owl Landscape, Smoky Mouse, Giant Burrowing Frog, Southern Brown Bandicoot, Long nosed Potoroo, Brush tail Phascogale, Stuttering Frog, as well as rocky out crops, heath, swamp and heritage areas have ensured that areas of potential habitat already exist across the landscape in Eden.

Yet the draft Coastal IFOA Conditions requires additional areas of habitat to be reserved unnecessarily.

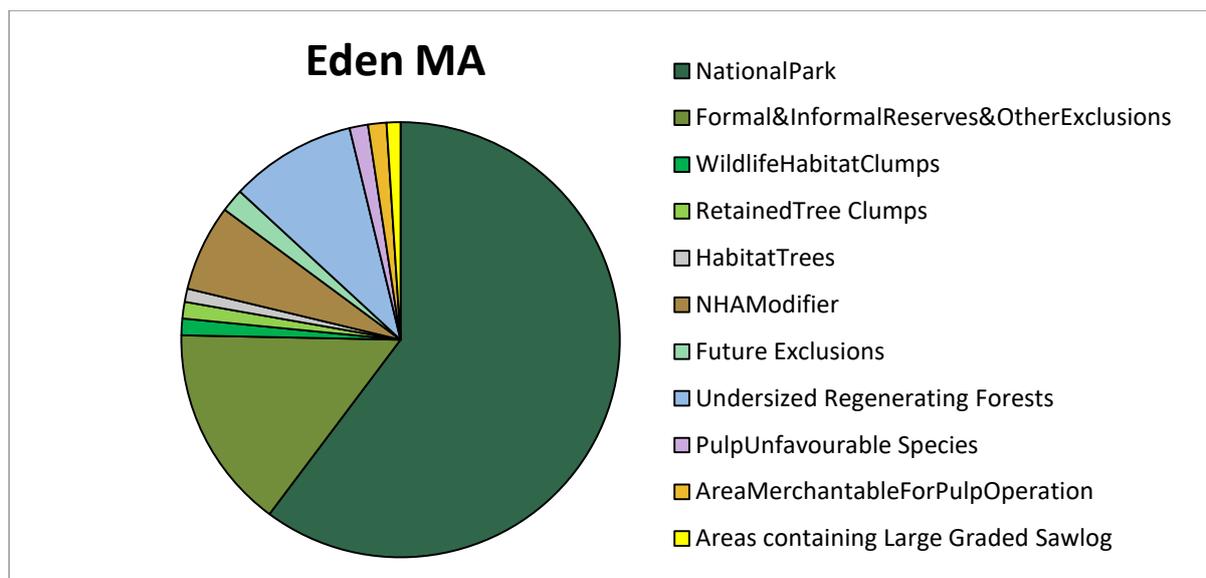
One such example is, in Northern Nullica SF, where Smoky Mouse exclusion zones total about 1,000ha. The gross area of this area of SF is 5,300ha or 3.5 local landscape areas, so wildlife habitat clump requirements (5% of BNA) will be 165ha yet [IFOA Condition 57.3] requires the previous exclusion of 1,000ha to be retained. This will represent 30% of the base net area far greater than 5% of the Base Net Area deemed adequate by the draft IFOA.

The following table 3 and graph 1 shows that for the Eden Management Area, the IFOA does not provide the balance between environmental values and wood supply.

Table 3 Classification of reserved conservation areas on public lands in Eden MA.

Eden Management Area	Ha	Cumulative Ha	Cumulative %	Notes
Total forested Public land	411,100			
National Parks & Reserves	247,400	247,400	60.2%	
Formal, informal Reserves & Other mapped exclusions	62,168	309,668	75.3%	1
Wildlife Habitat Clumps	5,072	314,740	76.6%	
Retained Tree Clumps	5,072	319,812	77.8%	
Habitat Trees	4,037	323,849	78.8%	2
Net Harvest Area modifier	26,372	350,191	85.2%	3
Future exclusions	7,100	357,291	86.9%	4
Undersized Regenerating Forests	38,416	395,737	96.3%	5
Pulp Unfavourable species	5,581	401,318	97.6%	6
Area Merchantable for Pulp Operations	5,582	406,900	99.0%	7
Areas that contain volumes of Large Graded Sawlogs	4,200	411,100	100.0%	8

Graph 1 Diagram representing areas in Table 3.



Notes to Table 3:

1. This figure is based on the 38% as stated in the NSW Govt Coastal IFOA Executive Summary. It includes all mapped exclusions; FMZs 1, 2, 3a as well as Stream Order reserves, known fauna exclusions eg Smoky Mouse and 12,000Ha of Murrah Flora Reserves, dedicated in 2016.
2. Habitat trees have an area of exclusion associated with each tree. The zone of influence of retained trees on forest regeneration is estimated as 5m radii and thus reducing the net productive area from the estate.
3. There are areas not harvested in a compartment in addition to mapped exclusions, due to conditions that limit access to the trees. These areas have been referred to in the past as “buffer on buffer”. FCNSW have sampled harvested areas and developed algorithms for predicting this area that is unavailable for harvesting and is known as the Net Harvest Area modifier. For the Eden Management Area, FCNSW’s latest estimate is 26% of the Net Harvest Area or Base Net Area. The true impact of the new draft Coastal IFOA will not be able to be assessed until a number of compartments have been logged.
4. Future Exclusions. Future discoveries of ESAs or other fauna discoveries will occur during the planning process which will result in additional areas of exclusions. This was estimated as 7% of the Base Net Area as it was during the CRAs.
5. Regenerating forest with trees too small to sustain any merchantable operation, because of previous harvest events over the last 30 years.
6. Stringybark type forests contain the less favoured Regrowth Pulpwood, markets pending.
7. Areas of forest which are merchantable for pulpwood operations of favourable species.
8. Areas that contain reasonable quantities of Large Graded Sawlogs.

The above assessment is understating the impact of wildlife habitat clumps because of the previous over exclusion [Condition 57.3]. “Where previous exclusion zones are more than 5% of the Base Net Area of each local landscape area, then all previous exclusion zones must be retained”.

Recommendation

11. EPA show justification, with scientific evidence that increasing the mapped exclusions from 38% (~62,00ha) of SF tenure to 44% (~72,000ha) to be vital in conservation of flora & fauna, especially when there is 247,400 ha of National Parks in the Eden Region.

2.2. Landscape approach

The “Landscape approach” has already been applied in the management of the forest of the Eden MA, it was the foundation of the original alternate coupe logging pattern circa 1976. The rationale of this approach to conservation is that flora & fauna species can cope with disturbance and by dispersing operations through time and space this would further reduce any environmental impact.

The concept of a multi scale landscape approach has also already been applied to the forest of Eden MA and was created in response to the “Native Forest Policy” of 1979 by linking areas of reserve (National Parks) with wildlife corridors, which were based on forest types favoured by arboreal mammals. The corridors, areas of reserve and retained alternate coupes were the foundation of a landscape approach for the management plan for Eden in 1982. These measures were complemented with habitat tree retention in the logging areas where arboreal mammal preferred forest types existed, and drainage features were protected by filter strips as early as 1977.

Since 1982 there has been

- an increase in National Parks of 194,500 ha
- formal and informal reserves (Forest Management Zones) have increased by 11,800ha

However, this approach has been compromised over the years by various government decisions.

- Legal moratoria (Jarasius V Forestry Commission 1988),
- Govt moratoria (Areas nominated for the Register of the National Estate, 1989),
- DUaP determination of the Eden 1994-97 EIS of preferencing logging the retained alternate coupes in over logging unlogged compartments, and thus reducing the original return time,
- Continuing species specific exclusions; Smoky Mouse, Southern Brown Bandicoot, Giant Burrowing frog and others.
- The creation of the Murrah Flora Reserve 2016

Now the new draft Coastal IFOA is trying to impose a concept in the Eden MA that has already been in place for 40+ years, which has been compromised over the years by Govt decisions.

Retention of further areas of exclusion in a multiscale approach under conditions of the draft Coastal IFOA will further comprise the original landscape concept.

2.3. Future Exclusions

The strike rate modifier was used during CRA negotiations to estimate future exclusions created as a result of additional flora & fauna records discovered during the harvest planning process. This was estimated to be 7% of the Net Area. This could be a conservative estimate as the new Coastal IFOA Conditions have increased the species that require additional exclusions, particularly the nests or roosts of birds. These future exclusions are to be permanently excluded, [Condition 83.2], unless 2 consecutive breeding season surveys find that the nests are no longer used, [Condition 83.4 (b)].

The following table 3 is a list of bird species that require nest or roost exclusions that have increased or did not exist under the TSL 1995.

Species	Exclusion around Nests
Regent Honey Eater	0.2ha
Varied Sitella	0.2ha
Gang Gang Cockatoo	0.2ha
Black Chinned Honeyeater	0.2ha
Speckled Warbler	0.2ha
Diamond Firetail	0.2ha
Grey Crowned Babbler	0.2ha
Little Lorikeet	0.2ha
Flame Robin	0.8ha
Scarlet Robin	0.8ha
Hooded Robin	0.8ha
Glossy Black Cockatoo	0.8ha
Dusky Woodswallow	0.8ha

Table 3: Bird species requiring increased nest or roost exclusions

2.4. Net Harvest Area Modifier

The Net Harvest Area modifier is the estimate of areas not harvested in a compartment in addition to mapped exclusions, due to conditions that limit access to timber.

FCNSW's project of quantifying the Net Harvest Area Modifiers, done for the Auditor General's Performance Audit, 2010, was last estimated at 26% of base net area. This estimate may be conservative as [Condition 113] of the new Coastal IFOA requires track crossings of any drainage feature to be a bridge, culvert, causeway or temporary log crossing and cannot be a side-cut causeway. This condition may limit the application of side-cut snigging, which is safer and more environmentally friendly than uphill snigging. It may therefore severely limit the area that would be accessible in steeper country and greatly increase the net harvest area modifier.

[Condition 99.1 and table in Condition 102.2] of the new Coastal IFOA allows machines to enter 5m of drainage lines Class 2,3 &4 in other regions, **but not Eden**. Allowing this condition to be the same could make Sawlogs more accessible and reduce some of the negative impacts of the other IFOA conditions on sawlog availability.

[Protocol 16] Introduces the concept of "Bankfull level", the point from which the exclusion zone is measured. This is not appropriate for the drainage systems of the Eden Management Area because they are not permanent water courses. The weather is such that these water courses can remain dry for ages or flood to extreme levels; therefore aquatic vegetation would not be present or scour marks could be extremely high and thus further reduce the area available.

An increase in mapped exclusions will increase the area that will be unlogged for operational reasons, as measured by the NHA modifier project. The NSW Govt is legislating to dramatically increase penalties for any infringements of the draft coastal IFOA conditions. Simultaneously FCNSW are abdicating responsibility of implementing the draft IFOA conditions to the Forest operator by providing them with i-pads, electronic maps and GPS technology. This electronic equipment has so far proven to be inaccurate and unreliable in the field. The combination of increased penalties and inferior electronic guidance systems will cause the Forest Operator to err on the side of extreme caution. This will greatly increase the areas unlogged in addition to mapped exclusions so the net harvest area modifier will increase dramatically.

Recommendation

12. FCNSW field officers continue to mark exclusions in the field
13. FCNSW continually monitor the NHA Modifier on a yearly basis.
14. Delete the term "Bankfull level". The measurement of the exclusion zone on drainage lines should be from the top of the bank of the incised channel as per the EPL conditions (2000); Schedule 4, condition 11.

3. Logging is not a Threatening process

The basic assumption of the IFOA conditions is that logging is a threatening process to flora and fauna and exclusion is the only effective ameliorating measure. This new Coastal IFOA changes the focus from searching for animals to additionally searching for, and reserving habitat on suspicion.

Research studies done in the Eden Management Area showed:

- arboreal and avifauna populations responded as the forest regenerated, with 78% of bird species present as little as 4 years after logging.²
- The Southern Brown Bandicoot Management Plan, states that the SBB is an early succession species and individuals have been found before and after both logging and thinning operations.³
- Many of the occasional sightings of Potoroos have been in logging regrowth.
- Research into large forest owls showed little decline in a mosaic of logged and unlogged forest. Both Powerful and Sooty Owls were commonly recorded in logged landscapes. The owls used riparian areas for nesting and roosting and foraged in logged areas, where numbers of Yellow-bellied Gliders and Ring-tailed Possums have proliferated.⁴

The concept of a Landscape approach is that fauna can find refuge in unlogged areas and can repopulate logged areas in a short time.

The original IFOA was based on the “precautionary principle”. This principle drove a system of protection by reservation because scientists did not know enough about species and forest habitats at that time. Since then the NSW Government has just added to these old exclusion conditions without any further knowledge of the species or their habitats.

The NSW Government has had 20 years to review the original IFOA conditions to their effectiveness in achieving their conservation objective, yet they have failed to do so. The new draft Coastal IFOA concedes that scientists still have little idea about the species and habitat and use enhanced precaution as a basis for supposed environmental protection at all cost.

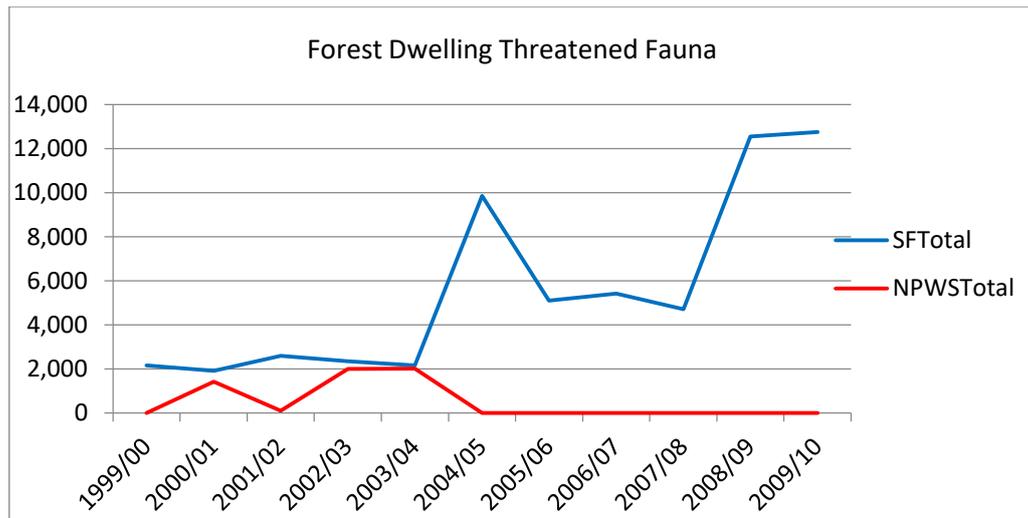
Section 5.20 under the Threatened Species Act (1995) made allowance for research to be undertaken into the effectiveness of Exclusion Zones. The new IFOA does not make allowance for any such research and there is no evidence that such research has ever occurred.

The ecology, flora and fauna of Eucalypt forest ecosystems are the consequence of disturbance driven ecosystems and have evolved under regimes of significant disturbance events. NSW government agencies committed in the Regional Forest Agreements to monitor Threatened species across their respective tenures. Returns as stated in the EPA’s IFOA reports on forest harvesting operations show an increase in the records of Forest dwelling threatened Fauna. Graph 2 below clearly identifies an increase in forest dwelling threatened species but a distinct lack of records in reserved forests over the past 10 years.

² H.F.Recher,J.Shields,R.Kavangh&G.Webb:Nature Conservation at Eden, Jan 1987

³ ForestsNSW: Species Management Plan for Southern Brown Bandicoot ,2007

⁴ R.Kavanagh: Conservation and Management of Large Forest Owls in South Eastern Australia, Jan 2002



Graph 2 Records from IFOA annual reports

Therefore it is quite reasonably concluded that forest dwelling species within the ecology of eucalypt forests, are well adapted and dependant on a regime of environmental disturbance.

Recommendation

15. NSW Govt research and review the effectiveness of each of the habitat features identified for retention in the draft Coastal IFOA conditions in increasing threatened fauna species numbers.
16. NSW Govt must conduct regular surveys to monitor fauna numbers across all tenures, State Forests, National Parks and Other Govt lands.
17. The draft Coastal IFOA makes allowance for research to be undertaken into the effectiveness of exclusion zones.

4. Forest Management Sustainability

4.1. Sawlog Sustainability

The NSW Government's approach to forest management is one of remainders. The new draft Coastal IFOA enforces logging exclusions on a macro, landscape and micro level. What remains appears to be irrevocably insufficient to satisfying the current industry's requirements.

Management of State Forests to produce future large graded sawlogs as a priority, is no longer an objective in the Eden Management Area. Other areas of NSW, without an alternative market for export pulpwood, are still maximising future sawlog production at every opportunity.

BRH have estimated that only 4,200 ha of Base Net Area currently contain sufficient quantities of Large Graded Sawlogs, of which 1,400ha are currently located in Nadgee Management Section. According to IFOA [Protocol 8.2(2)] at least 15 local landscape units have to be created in Nadgee; 705 ha must be retained for Wildlife Habitat clumps, another 705 ha for Retained Tree clumps and 555 ha associated with Habitat Tree retention, plus further exclusions for large owl finds either 0.2ha or 0.8ha for each roost or nest respectively. The 1,400ha of sawlog

merchantable forest in Nadgee, most probably will end up being reserved to meet the new draft IFOA conditions.

The current timber resource in Eden is such that every sawlog is vital. The quantity and quality of sawlogs in Eden is not evenly distributed across the landscape and therefore sawlog trees cannot be reserved under new draft Coastal IFOA conditions in areas where the sawlogs exist.

Recommendation

18. Wildlife Habitat Clumps must not contain Large Graded sawlog trees, Small graded sawlog trees or Potential sawlog trees.
19. Tree Retention clumps must not contain Large Large Graded sawlog trees, Small graded sawlog trees or Potential sawlog trees.
20. Permanently Retained Trees must not be a Large Graded sawlog trees, Small graded sawlog trees or Potential sawlog trees.
21. Withdraw Condition 23.3 (3) Protection of Retained Trees
 “Where a comparable tree is not available, FCNSW must retain a mature tree with a healthy crown”.
22. Intensive harvesting described by the term “Eden Alternate Coupe Logging” must not be applied to healthy regrowth stands.

4.2. Ever Reducing Harvest Areas

The new draft Coastal IFOA, in creating additional areas of permanent reservation, reduces the available harvest areas and further concentrates logging operations in the remaining areas (as has been noted by the NRC Report), which is contrary to the espoused principle of the landscape approach.

In the future, additional areas of permanent reserve; Habitat & Tree Clumps and Ecological Sensitive Areas, will be considered as “formal reserves” and the future Base Net Area will require the exclusion of further habitat areas, thus continually reducing the area available.

This will mean that the concept of sustainable yield in perpetuity is unattainable, as the draft IFOA conditions impose a system of an ever decreasing net harvest area. This disadvantages the practice of selective logging when only a little is taken each compartment visit because the available area will be reduced next visit. The objective of minimising environmental impact from logging will in fact be increased by the application of the draft Coastal IFOA conditions.

Sustainable yield must be recalculated, to account for these additional areas of permanent reservation, so that the NSW Government can evaluate its “no net change to wood supply” commitment, and determine real options for replacement of the lost productive forest that is about to occur and has occurred over much of the life of the RFA, NSW FA, the IFOA and the BRH WSA, from the Eden Management Area.

Of course, the recalculation of the sustainable yield of Large Graded Sawlogs, should not be done by chicanery either, as in the new Coastal IFOA, where FCNSW, with the obvious consent of the EPA, has simply changed the words within the definition of High Quality Large Sawlogs,

to also include other sawlog categories (that are currently defined as high quality small sawlog; veneer log, pile, pole or girder log). Additionally, High Quality Small sawlogs now mean anything less than a Large, all the way down to ZERO diameter. Believe it if you can. The changed definitions of Sawlogs, exclusively reserved for the Eden Region, attempts to cover up the fact that the NSW Government and FCNSW has not managed the Eden Region as a sustainable resource of Graded Sawlogs and are trying to inflate the figures by deception. With the introduction of this new regulation, we have abandoned the previous regional perspective by rolling 4 IFOA's into 1 and yet the "state-wide" application of competitive fairness and a level playing field has been discarded. It is also contrary to the usual FCNSW policy, because on the 31st March 2010, a letter was sent to BRH from FNSW stating, in part, that "Since April 2009, Forests NSW has identified its intention to apply a simpler State wide system to ensure consistency across all its customers".

It is difficult to quantify the impact of the change in the IFOA conditions because it is unknown where the wildlife habitat & retained tree clumps will fall, until they are implemented. The impact on harvesting can only accurately be assessed after the fact, similar to FCNSW's project quantifying the Net Harvest Area Modifiers done in 2010. This report done for the Auditor General's Performance Audit was finalised 3 -5 years after the logging was completed. It will take a similar time frame to truly assess the new IFOA conditions.

Recommendation

23. The application of wildlife habitat clumps, retained tree clumps & habitat trees can only occur once, not for each and every harvesting operation ad infinitum.

4.3. Merchantable areas of forest across the landscape

The draft Coastal IFOA aims at creating undisturbed habitat across the landscape. However, the remaining areas available are not all of merchantable size and therefore are not available for harvesting yet.

The forests of Eden comprise mostly of regrowth trees that were generated from integrated logging post 1970's. The distribution of these stand ages is not even across the landscape as the IFOA assumes, but a reflection of site quality and the forest's past management.

In the 1970's the dispersion of harvesting was restricted by the road network, once the roads were created operations were dispersed through the landscape by harvesting on an alternate coupe pattern. In the 1994-97 EIS, the Department of Urban Affairs and Planning deemed it environmentally less sensitive to log the retained alternate coupes, rather than dispersing operations; thereby concentrating stand age classes in certain parts of the Management Area.

The draft Coastal IFOA could reduce the areas which are merchantable by imposing the "Multi-scale approach" to reservation with each local landscape area requiring a further 100-130ha retained for habitat. These areas of habitat may overlap with the areas that contain trees that have become of merchantable size.

4.4. Scheduling difficulties exacerbated by IFOA

The new draft Coastal IFOA does not understand that forests are not uniform in volume or quality, as is the case within the Eden Management Area. The forest does not contain an even mix of sawlogs and pulpwood on a compartment by compartment basis. Therefore FCNSW need flexibility in locating crews across the Management Area to provide an even flow of products. So when the restrictions of the new draft Coastal IFOA are then combined with the vagaries of the weather, legalities, threatened species discoveries, capricious political decisions, local protests and wildfire; the ability to provide an even flow of all products, especially sawlogs, becomes more difficult and threatens industry viability.

The new IFOA conditions increase FCNSW's planning requirements and therefore the lead time required to change the harvesting schedule in response to any of the above mentioned reasons. This lead time is already estimated, (under the current IFOA), to be 24 weeks before the commencement of operations.

BRH also needs the flexibility of adjusting the flow of sawlog supply, so when a compartment contains a high percentage of sawlogs then flexibility is needed in the IFOA conditions to allow multiple visits to these compartments. The opposite is true for compartments low in sawlog production. Otherwise sawlog flow to the mill will be highly variable and it will either be a "feast or famine" and not necessarily consistent with the required planning, processing and market schedules.

Recommendation

23. FCNSW must have the habitat clumps and retained tree clumps identified and marked in the field 1 year in advance of operations.
24. Return times be applied to the sub compartment level, as patches within the compartment may be harvested years apart from the majority of the compartment.

5. Specific Issues

5.1. Rocky Outcrops

The scientific rationale for such a condition has been lost in the last 20 years despite in the definitions of the Threatened Species Licence 1995. It states;

“These sites may occur where the geology varies from the surrounding area (**eg rhyolite**).”

The intent of the condition was to protect Flora species that were locally endemic and regionally significant by reducing the possibility of hazard reduction burns entering the populations. Buffers were established to exclude logging debris from these sites as they could possibly add fuel during hazard reduction burning operations.

The reason rocky outcrops are considered significant is as follows.

The geology of Nullica S.F. is of Upper Devonian Boyd Volcanic complex. This complex consists of silicic rhyolite plugs and dykes separated by interstratified sediment rhyolite and basalt. Massive rhyolite outcrops are frequent and sometimes form spectacular cliffs. Substrates developed from the rhyolite are often strongly skeletal and on steeper slopes form developed scree. (Binns, 1990)⁵

(Albrecht, 1986)⁶ surveyed Nullica State forest and private property and drew attention to the biological significance of these rhyolite outcrops in the area for the presence rare and endangered flora species.

(Binns, 1990) also surveyed Nullica SF and found 4 species; *Leionema ralstonii* (previously named *Phebalium ralstonii*), *Westringia davidii*, *Prasphyllum* sp. aff. *morrissii* & *Hibbertia* sp. aff. *hermanniifolia*. to be locally endemic and regionally significant.

(NPWS, 2002)⁷ developed a draft recovery plan for the following species;

Acacia constablii, *Acacia georgensis*, *Genoplesium rhyolicitim*, *Leionema ralstonii*, *Westringia davidii*.

The report states;

Westringia davidii is a narrow endemic species confined to rhyolite outcrops above 250m in elevation to coastal ranges to the west of Eden and Pambula in the catchments of Yowaka and Pambula rivers. It is largely restricted to shallow organic loam soils that fringe rhyolite outcrops. This narrow niche approximates the ecotone between open forest dominated by Silvertop Ash.

Leionema ralstonii, like *Westringia davidii* appears to be restricted to upland rocky outcrops and dry ridges above 250m. The plant species typically associated with *Leionema ralstonii* include those which characterise the habitat of *Westringia davidii*.

Rhyolite Midge Orchid (*Genoplesium rhyolicitim*) is restricted in distribution to the south coast of NSW and is known to occur on six sites spanning an area of 7 by 10km on Nullica SF and

⁵ Binns,D & Kavanagh, R. (1990). Flora & Fauna survey of Nullica State Forest, Eden District, Eden Region. Pennant Hills, Sydney: Forest Resources Series, Forestry Commission of NSW.

⁶ Albrecht,D,(1986).An assessment of conservation significance of Rhyolite outcrops in Nullica State Forest. Victoria: Unpublished.

⁷ NPWS (2002). Draft Recovery Plan for Threatened Flora of Rocky Outcrops in South Eastern NSW. Hurstville NSW: National Parks & Wildlife Service

Yowaka National Park. All documented locations are in very shallow soils overlying Rhyolite rock on a range of aspects.

This draft plan states that the occurrence of these rare and endangered species is limited in distribution and is associated with rhyolite outcrops. The plan discusses threatening processes and mentions the possibility of hazard reduction burns entering the edge of these plant communities. It recognises that hazard reduction burning may decrease the frequency of unplanned wildfires suggested by Binns (1999) pers.comm. but the implications of which needs to be assessed.

The intent of the condition was to protect Flora species that were locally endemic and regionally significant by reducing the possibility of hazard reduction burns entering the populations, although the impact of fire is still to be assessed.

These flora species are located in a small part of the Eden Management Area, “confined to rhyolite outcrops above 250m in elevation on coastal ranges west of Eden and Pambula in the catchments of Yowaka and Pambula rivers.”

The environmental group South East Forest Rescue believe that the rocky outcrop condition should apply to rocky outcrops of predominately of Devonian Granite origin (*Daines, 2013*)⁸. There is no correlation between this geology and the locations of the flora which are of concern, quite the opposite.

There is no scientific reason for the basis of protecting rocky outcrops, other than those of Rhyolite origin, by doing so the EPA are just protecting rocks.

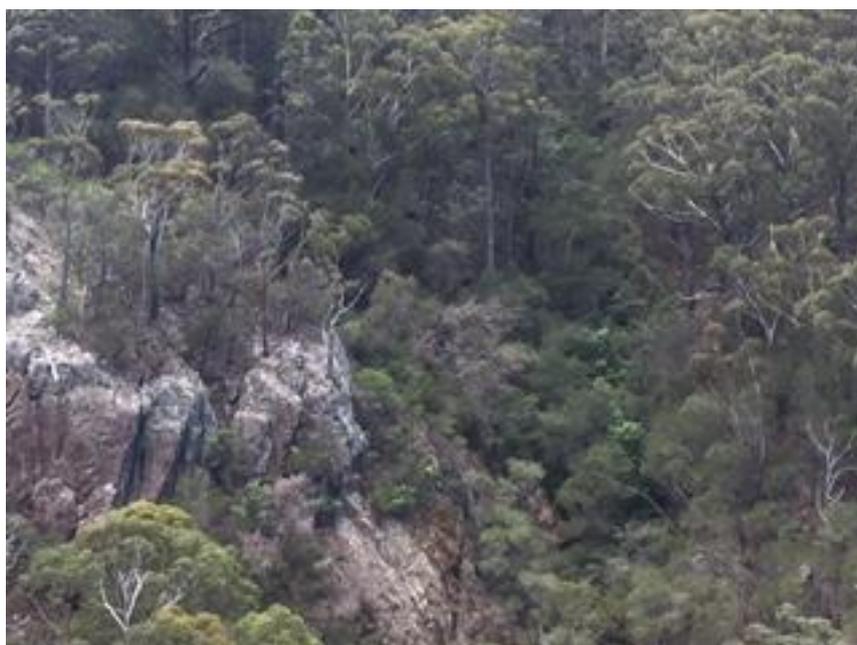
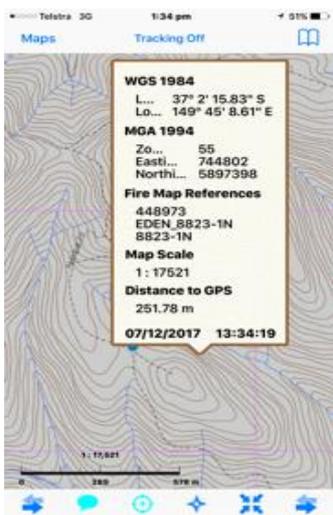
However, the rocky outcrop condition was applied in other Forestry regions of NSW and in the Western Region the justification given was that rocky outcrops provide habitat for the pale-headed snake (*Hoplocephalus bitorquatus*). While in the public meeting in Eden 8th June 2018, Jackie Miles from EPA declared that rare plants occurred in the buffer of the rocky outcrops, what nonsense.

The justification for exclusion zones has clearly been lost by the regulators (NPWS & EPA) over the last 20 years and the draft Coastal IFOA continues the myth.

. Photos

These photos are of rocky outcrops in Yowaka NP, formerly Nullica SF, the location was identified by (Binns, 1990).

⁸ Daines,S.(2013).Non Compliance of IFOA condition 5.11 Rocky Outcrops. South East Forest Rescue.





Recommendation

- 25. Exclusion zones are only required around rocky outcrops of Rhyolite origin located in Nullica S.F.

5.2. Regeneration

The objective of intensive logging operations should be to create regeneration at sufficiently high stocking levels to ensure Large Graded Sawlog sustainability in perpetuity.

The new Coastal IFOA's objective is only to ensure forest coverage of the same floristic composition [Condition 127.1] & [Protocol 37].

Firstly, the concept that any forests containing less than $14\text{m}^2\text{ha}^{-1}$ overstorey must achieve regeneration is flawed. Basal Area is a function of site quality and setting a state wide standard is not appropriate for the poor quality forests of Eden.

Unlogged multi-aged forests in Eden have been measured as low as $26\text{m}^2\text{ha}^{-1}$. FCNSW have conducted thinning operations that have left remaining trees that are less than $14\text{m}^2\text{ha}^{-1}$ so that the growth from the site can be concentrated into the remaining trees to reduce the time trees take to reach sawlog size.

If the silvicultural objective of a logging operation is to achieve regeneration then counting the overstorey basal area also makes no sense [Protocol 37.9(5)]. Regeneration is traditionally measured as $\text{stems}\cdot\text{ha}^{-1}$, not as basal area because at the age of measurement ($<5\text{yrs}$), the stems are too small to have their DBH measured.

Eucalypts regenerate after fire or mechanical disturbance and more prolifically where the soil is bared. Poor regeneration has occurred in Eden Management Area, poor both in stocking levels and in tree form and this has been because practices in the 1990's focused on minimal soil disturbance using less soil disturbing machinery, or from 2010 onwards when Post log burning has failed to occur.

The draft Coastal IFOA conditions should allow FCNSW to correct these areas by allowing for sufficient soil disturbance to create conditions for a bumper crop of regeneration.

Large Graded Sawlog sustainability requires that the resulting regeneration be dense in number, which produces tall straight seedling as future sawlogs. Any IFOA condition that hinders this is reducing the sawlog sustainability of the forests.

Recommendation

26. Delete the Basal area value of $14\text{m}^2\cdot\text{ha}^{-1}$ in Protocol 37.8 (2)
27. Remove Protocol 37.9 (4) & (5). A measure of regeneration should not include a measure of the retained over topping basal area. These are two separate measures.
28. FCNSW calculate and report on the actual measurement for the stocking of the regeneration at each plot and an average for the compartment. A Boolean value for each plot is not satisfactory.
29. Compartments must be adequately stocked with regeneration where silvicultural objective of the harvest operation is to initiate regeneration with the objective to grow trees of sawlog quality.
30. Post Log burning must be carried out in Compartments where the silvicultural objective of the harvest operation is to initiate regeneration.

5.3. Coarse Woody Debris

The rationale to protect coarse woody debris is the presumption that fauna may dwell in them. Studies into CWD found that there is 70 tonne.ha⁻¹ of CWD presently on the forest floor, at these rates there is ample potential habitat for any faunal species. The reality is that it poses as a major fire threat not only to the animals but also to the people of Eden and surrounding localities.

The NSW bush fire brigade recommend that private land holders reduce their CWD below 10 tonne.ha⁻¹ in order to reduce bush fire risk.

The practice of not post log burning, existed prior to both the 1972 & 1980 wildfires. The 1980 fire convinced all critics of the practice that it was essential to reduce this fuel in order to reduce the intensity of any wildfire that may occur.

Recommendation

31. NSW Rural Fire Service to conduct a risk fire assessment of SF and NP estates and write a Fire Management Plan for each land manager to implement.
32. Condition 69 on Coarse Woody Debris Protection to be deleted.

6. Costs

The NSW Govt changed the Forestry Act in 2012 with the main objective for FCNSW;

10 (1) (a) “To be a successful business” (Forestry Act, 2012)

Since the Forestry Corporation was created, the focus of forest management has primarily been on financial return.

The increase in costs for FCNSW to comply with the new draft Coastal IFOA conditions for planning, monitoring and reporting may well make large areas of forest resource “economically unviable”. Their cost benefit analysis may well deem that many of the operations to be uneconomic and therefore reduce the net area available, and consequently further reduce Sawlog and pulpwood supply.

The cost of the new regulations is intended, in legislation already drafted, to be paid by FCNSW. They must pay for EPAs compliance and enforcement activities and this fee could be astronomical, as it is an undetermined amount; a “blank cheque” if you will. FCNSW’s business model will undoubtedly pass on this fee to its customers – the timber industry, in some form or another, simply because they are a monopoly supplier and they have an enforceable right to run their business profitably. It is written in legislation.

Recommendation

33. FCNSW to publish budget costs of EPA’s monitoring, supervision and legal fees each financial year.

7. Readability of the IFOA documents

The Conditions & Protocol documents are poorly written and difficult to follow. The concept of having two documents is flawed and the constant referring to the other document is frustrating and unworkable.

The responsibility to read, interpret & implement the conditions in the field has been transferred down to the “front line”, the Forest Operators, Contractors and Principal licensee, many of who have a low level of proficiency with reading and writing.

The NSW Govt justification for remaking the IFOA conditions was to “clarify and simplify IFOA conditions and help improve operational efficiency”. These documents fail on all accounts.

Recommendation

34. Rewrite the Coastal IFOA conditions into one clear and concise readable and easy to follow document.

8. Conclusion

None of the concepts of the Coastal IFOA conditions are new, they just reduce the available area and then apply a new balance. The rationale of a “Landscape approach” to conservation is that flora & fauna can cope with disturbance and the concept of dispersing operations to reduce the environmental impact was the foundation of the original alternate coupe logging pattern circa 1976. The draft Coastal IFOA has not created a new Landscape approach to conservation but just added to the precautionary principle of exclusion. Also the Eden MA already had a Multi-scale approach with the establishment of wildlife corridors, Flora reserves, alternate coupes, complementing National Parks and now there are exclusions for Ridge & Headwater, Old Growth, Rare Forest Ecosystems, Owl Landscape, Smoky Mouse, Giant Burrowing Frog, Southern Brown Bandicoot, Long nosed Potoroo, Brush tail Phascogale, Stuttering Frog, as well as rocky out crops, heath, swamp and heritage areas. Multi-scale reservation is already established; therefore none of the new IFOA conditions are warranted or justified in Eden MA.

At the conclusion of the Comprehensive Regional Assessment (CRA), FNSW calculated the sustainable sawlog yield to be 23,000m³ p.a., then NSW Govt agencies constructed the IFOA and naively FNSW sent an ecologist to negotiate conditions that would impact on harvesting operations. It was estimated that a further 7% of area could be excluded by future exclusions; in fact it has become 25%. The consequence has been that the Multi-aged forest did not last until the end of 2018 but depleted in 2013. FCNSW in response compromised sound forestry principles and logged Visual areas (FMZ3a), chased pockets of MAF in previously logged areas sacrificing established regeneration and harvested the older aged regrowth (OAR) before reaching optimal sawlog size. More exclusions result in poorer environmental outcomes and yet history is repeating itself. The new draft Coastal IFOA will result in more exclusion, more intensive logging, shorter rotations and fewer Large Garded Sawlogs.

More exclusion endangers the viability of a forest industry on the limited areas remaining for sawlog and pulp production, and pretending that pulpwood can become sawn timber, with the stroke of a pen, will not change this. Much of the regrowth is now being utilised for pulpwood but could have been reserved for future sawlogs. The regrowth resource is younger, smaller in size and destined to be harvested as pulpwood, (no matter what it is named).

Blue Ridge Hardwoods was originally set up to process Large Graded Sawlogs, of which was about 80% of its volume accessed from the Multi-aged Forest, this is the current technology employed within the sawmill. This company tried to maintain this resource as long as possible, yet our many attempts at doing this were denied by Forest Corp NSW, Forests NSW, State Forests of NSW and the various NSW State Governments.

Blue Ridge Hardwoods, around 1998, was invited by the NSW Govt, to be the sawmilling company that could recommence operations of the Boral sawmill at Storey Ave, Eden. It had previously closed by Boral in 1996, possibly due to lack of return and their well documented dislike of mixed species hardwood. This company was reluctant to proceed on the basis that the Govt funded feasibility studies could not create a suitable return, but with the promise of a “Special Review of Price Schedule and Price System”, that would be enshrined within the new WSA and the promise of being the company that would have the only increasing resource base in the state for the future, the company reluctantly agreed to participate in the Eden project. BRH had to initially find \$5.8m of investment towards this. The feasibility studies were true to their word as this company did not achieve any form of profit until 2007/08 and only after they invested more millions into efficiency improvement.

Blue Ridge Hardwoods is now in a position, because of a number of agency decisions, including the systematic silvicultural treatment of this regrowth resource to maximise profit and to virtually eliminate the future sawlog resource, and as well as broader Government decisions, including resource exclusion across a wide number of fronts (and in contradiction of stated policies within the RFA, NSW FA and the company's WSA), to be incapable of viably processing this new resource, that will become available in 2019.

The unfortunate consequence of this Government direction to manage Eden the way that it has, through a deliberate short rotation policy that promotes smaller stem size, means that the sawlog balance will move from 80+ % of Large Graded Sawlogs, to 80+ % of Smalls and Super-smalls, and of a smaller volume than historically taken. This resource is not the resource that was offered to BRH as their future, beyond their WSA back in 1998, when the cards were on the table and the NSW Govt was desperate to encourage this company's participations. This approaching resource now demands much different technology to be able to viably process it, but the company's current technology is still at "best practice" standard for processing a dominant mix of large graded Sawlogs, as is the standard elsewhere in the state.

If the consequence of how Eden has been managed, is not in direct conflict with the entire concept of what the NSW Forestry Industry Roadmap wants to deliver, then we are very poor judges. We quote from the front page: "The NSW Governments vision is that NSW will have a sustainably managed forest estate that underpins a dynamic, economically efficient forestry industry, which continues to support regional economies and delivers social and environmental benefits".

Paul Toole, Minister for lands and forestry, stated "The government is determined to get the right balance between the environment and industry; environmental standards can be strengthened at the same time as providing long-term security of wood supply and certainty to investors and the industry". That statement does not reflect the reality facing the owners of Blue Ridge Hardwoods at Eden, as they consider what they can possibly do with a \$20 million asset/liability, as they sit placed, in an environment of complete uncertainty.

It is unfortunate for the Government, (as de facto part owner of the sawmill), and the people of the Eden Region, as well as for the Company and its staff, contractors and customers, that this \$12 million joint-venture, that has been so successful over much of the last 20 years, is now about to enter the annals of history and become registered as another Govt, supported, (initially), business failure. But that is really not the true story; the fact is that it was and is a very successful company, ably supported by a highly skilled and enthusiastic workforce, that sells over \$13 million worth of high quality products into the Australian market every year and that was just not shown the respect it deserved, so that it could have continued on. It is a victim of greed and short-sighted vision and is sadly based in a town that desperately needs it,(and the rest of the industry framework), to remain a cornerstone of that community.

Recommendation

35. NSW Govt must compensate licensees for any loss of resource as a result of the implementation of the draft coastal IFOA Conditions.

9. Recommendations

1. NSW Govt. and Natural Resources Commission (NRC) assess the impacts of the draft Coastal IFOA on large graded sawlog supply in Eden MA.
2. FRAMES be redesigned to be able to supply compartment level forecasts of large grade sawlog volumes.
3. FCNSW remain the responsible party for the implementation of any IFOA conditions on State forest lands.
4. Change the definitions in the Protocols of HQL Sawlog to be the same as in the Blue Ridge Wood Supply Agreement.
5. Change the definition in the Protocols of Sawlog and Pulpwood.
6. Change the term HQL to large graded sawlog as in the Blue Ridge Wood Supply Agreement.
7. Change the term HQS to small graded sawlog as in the Blue Ridge Wood Supply Agreement.
8. Retain all potential sawlogs for subsequent cutting cycle must be a condition included in each Harvest plan.
9. FCNSW must be trained in sawlog sustainability.
10. FCNSW & EPA to publish a strategy for achieving large graded sawlog sustainability, particularly for Eden MA.
11. EPA show justification, with scientific evidence that increasing the mapped exclusions from 38% (~62,00ha) of SF tenure to 44% (~72,000ha) to be vital in conservation of flora & fauna, especially when there is 247,400 ha of National Parks in the Eden Region.
12. FCNSW field officers continue to mark exclusions in the field.
13. FCNSW continually monitor the NHA Modifier on a yearly basis.
14. Delete the term "Bankfull level". The measurement of the exclusion zone on drainage lines should be from the top of the bank of the incised channel as per the EPL conditions (2000); Schedule 4, condition 11.
15. NSW Govt research and review the effectiveness of each of the habitat features identified for retention in the draft Coastal IFOA conditions in increasing threatened fauna species numbers.
15. NSW Govt must conduct regular surveys to monitor fauna numbers across all tenures, State Forests, National Parks and Other Govt lands.
16. The draft Coastal IFOA makes allowance for research to be undertaken into the effectiveness of exclusion zones.
17. Wildlife Habitat Clumps must not contain Large Graded sawlog trees, Small graded sawlog trees or Potential sawlog trees.

18. Tree Retention clumps must not contain Large Graded sawlog trees, Small graded sawlog trees or Potential sawlog trees.
19. Permanently Retained Trees must not be a Large Graded sawlog trees, Small graded sawlog trees or Potential sawlog trees.
20. Withdraw Condition 23.3 (3) Protection of Retained Trees
“Where a comparable tree is not available, FCNSW must retain a mature tree with a healthy crown”.
21. Intensive harvesting described by the term “Eden Alternate Coupe Logging” must not be applied to healthy regrowth stands.
22. FCNSW must have the habitat clumps and retained tree clumps identified and marked in the field 1 year in advance of operations.
23. The application of wildlife habitat clumps, retained tree clumps and habitat trees can only occur once, not for each and every harvesting operation ad infinitum.
24. Return times be applied to the sub compartment level, as patches within the compartment may be harvested years apart from the majority of the compartment.
25. Exclusion zones are only required around rocky outcrops of Rhyolite origin located in Nullica S.F.
26. Delete the Basal area value of $14\text{m}^2.\text{ha}^{-1}$ in Protocol 37.8 (2).
27. Remove Protocol 37.9 (4) & (5). A measure of regeneration should not include a measure of the retained over topping basal area. These are two separate measures.
28. FCNSW calculate and report on the actual measurement for the stocking of the regeneration at each plot and an average for the compartment. A Boolean value for each plot is not satisfactory.
29. Compartments must be adequately stocked with regeneration where silvicultural objective of the harvest operation is to initiate regeneration with the objective to grow trees of sawlog quality.
30. Post Log burning must be carried out in Compartments where the silvicultural objective of the harvest operation is to initiate regeneration.
31. NSW Rural Fires Service to conduct bushfire risk assessments of SF and NP estates and write a Fire Management Plan for each land manager to implement.
32. Condition 69 on Coarse Woody Debris Protection to be deleted.
33. FCNSW to publish budget costs of EPA’s monitoring, supervision and legal fees each financial year.

34. Rewrite the Coastal IFOA conditions into one clear and concise readable and easy to follow document.
35. NSW Govt must compensate licensees for any loss of resource as a result of the implementation of the draft coastal IFOA Conditions.