



FINAL AUDIT OF WHIAN WHIAN PRIVATE PROPERTY

**North East Forest Alliance
February 2014**

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Final Audit of

Whian Whian Private Property

Dailan Pugh, February 2014

NEFA has been helping neighbours who are concerned about logging on a private property, Lot 2 DP 599556 Whian Whian. Our aim was primarily to ensure that the threatened species provisions of the Private Native Forestry Code of Practice for Northern NSW (PNF Code) were activated and implemented. The logging was undertaken by the Forestry Corporation (FC) under the supervision of the Environment Protection Authority (EPA).

This report is based on October's 'North East Forest Alliance Audit of Whian Whian Private Property'; which was prepared while the operations were underway in an effort to influence outcomes, and thus was based on limited information. This report assesses issues in more detail and more comprehensively than was possible at that time and replaces that audit.

During the course of our investigations we have proven the presence on the property of 6 Threatened Species Conservation Act (TSC) listed Vulnerable animals: Alberts Lyrebird, Marbled Frogmouth, Sooty Owl, Masked Owl, Koala and Pouched Frog. And 3 TSC Act listed threatened plants: the Endangered Slender Marsdenia (*Marsdenia longiloba*), and Vulnerable Red Bopple Nut (*Hicksbeachia pinnatifolia* and Arrow-head Vine *Tinospora tinospoides*). Numerous other threatened species are expected. Had we not identified their presence then it appears unlikely that anybody else would have, and the relevant PNF Code prescriptions would not have been applied.

The Community Survey identified more locations requiring protection, as well as the TSC Act listed Endangered Green-leaved Rose Walnut (*Endiandra muelleri* ssp. *Bracteata*) and TSC listed Vulnerable Corokia (*Corokia whiteana*).

NEFA's audit has located 10 Slender Marsdenia, 30 Arrow-head Vines, and 36 Red Bopple Nuts that were affected by forestry operations occurring within 20 metres of them, with at least 4, 12, and 8 respectively of these intentionally impacted by the Forestry Corporation under the supervision of EPA after they had refused our request for a Stop Work Order. Six were apparently killed and one physically injured. NEFA and the community have also located 8 Koala high use trees that have had roading within 20m, at least 3 of these intentionally and under EPA supervision. Rainforest was also remapped to remove areas of the Federally Critically Endangered Lowland Rainforest of Subtropical Australia, thereby removing its protection and allowing a road to be constructed through it.

NEFA recognises that there are fundamental deficiencies with the PNF Code and that it provides inadequate protection for most environmental features. If the species specific prescriptions are activated they do, however, provide increased protection for important habitat of species identified as particularly vulnerable to logging, and are the minimum required where those species are present.

One of the most significant, albeit intentional, failings of the PNF Code is the lack of any need to survey for threatened species to obtain the records required to trigger the relevant species specific prescriptions. By the time of NEFA's first visit the Forestry Corporation had capitalised on this by

bulldozing a road through what should have been 20m exclusion zones around at least 4 Koala high use trees and 46 threatened plants. They were also logging in what should have been exclusion zones for Marbled Frogmouth. They could do so with impunity because at that stage nobody had recorded their obvious presence. Given that they bulldozed their logging road right next to (and presumably through) threatened plants and Koala high use trees, this is intentional blindness.

NEFA's recording of 5 Koala high use trees along the boundary confirmed neighbour's observations that this was an important area for Koalas. A new road constructed next to the base of one high use tree confirmed that the Forestry Corporation were not looking for them and were not protecting them. It was also apparent that a wide variety of other threatened species were likely to occur on the property.

NEFA returned 4 days later to do nocturnal call-playback on the adjacent property, hearing Marbled Frogmouth responding from three valleys on the property, along with a Masked Owl and a Sooty Owl. The prescriptions for these required implementation of 20m riparian exclusion zones and increased retention of older trees. NEFA wrote to the Ministers for the Environment and Primary Industries asking them to stop logging while surveys by flora and fauna experts were undertaken so all the required prescriptions could be applied.

Five days later NEFA recorded over 60 vulnerable Red Bopple Nuts, 3 endangered Slender Marsdenias and 8 Koala high use trees on the marked route of a proposed road, with 10 vulnerable Arrow-head Vines adjacent to the existing road. NEFA wrote to the Chief Executive Officer of the Environment Protection Authority, Barry Buffier, requesting he immediately impose a Stop Work Order on the grounds that Forestry Corporation were about to push a new road through a host of threatened species. Instead of stopping work, the EPA oversaw the Forestry Corporation's selection of a new route.

Three days later the extraction track was constructed within what should have been 20m exclusion zones for 3 Koala high use trees, 7 Slender Marsdenia, 12 Arrow-head Vines, and 8 Red Bopple Nuts, most that had been identified and tagged with pink tape prior to track construction. 2 Slender Marsdenia were killed, one injured and 3 are missing. One Arrow-head Vine was killed. The fact that these breaches of the threatened species provisions of the PNF Code happened under the supervision of the EPA after they had refused NEFA's request for a Stop Work Order is reprehensible. Stopping work while legal issues about the access road they were using were resolved and adequate surveys were undertaken was the right response.

Two days later the landowners agreed to a Community Survey, which continued over the weekend, with volunteers recording additional Koala high use trees and more records of threatened plants, including new records of the endangered Green-leaved Rose-walnut and vulnerable Corokia. Dr. Kooyman identified the national Critically Endangered "Lowland Rainforest of Subtropical Australia" as occurring in the identified logging area and subjected to roadworks. The rainforest had been remapped in the Property Vegetation Plan (PVP) to inexplicitly exclude 2.5ha of mapped rainforest.

After all this, NEFA found that the Forestry Corporation subsequently logged within what should have been exclusion zones for one Red Bopple Nut, 2 Slender Marsdenia and one Koala high use tree.

The PNF Code defines a record to include "known records" and "site evidence". Initially the Forestry Corporation refused to apply the required prescriptions to NEFA's records, arguing that they only had to apply prescriptions for "known records" already in Wildlife Atlas, despite "site evidence"

previously being taken to include new records. This attitude displays a breathtaking contempt for threatened species given that the limited prescriptions are the absolute minimum needed to be applied to limit impacts on species identified as vulnerable to logging. They also outrageously accused NEFA of falsifying site evidence of Koalas by placing Koala scats under trees, and initially refused to agree to apply the required prescriptions. Then some of the Koala scats reported by NEFA to the Forestry Corporation and EPA were removed by unknown persons.

Both the EPA and the Office of Environment and Heritage (OEH) have also been complicit in the deletion of mapped rainforest that is also the State and Federal listed Endangered Lowland Rainforest of Subtropical Australia, which had the consequences of enabling the Forestry Corporation to construct their access road through it, and reallocating the deleted rainforest as part of the logging area or as cleared land and thereby removing protection from it.

It is thus apparent that the principal access road was constructed, under the supervision of three NSW Government agencies, through rainforest qualifying as the NSW Endangered Ecological Community Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion and the Federally Critically Endangered Lowland Rainforest of Subtropical Australia. While the agencies may be able to delete rainforest they can not remove the fact that it is an endangered ecological community and remain bound by the requirements for management of this, particularly outside the PVP area.

NEFA has found numerous other breaches of both the intent and letter of the PNF Code. We are particularly concerned with the intrusions into the Nightcap National Park (and the potential that these could be even more extensive), and the debris left around many ancient hollow bearing and recruitment trees, along with many Koala feed trees and threatened plants, ready for burning.

We are also particularly concerned with the contempt for streams shown by the construction of a road parallel to a creek within what should have been a riparian buffer zone and the felling of trees into unmapped drainage lines, and the pollution that will result, though recognise that this is allowed.

In summary NEFA asserts that there have been the following breaches of the Private Native Forestry Code of Practice for Northern NSW by the Forestry Corporation acting on behalf of the landholders:

- 1) **2.1 Forest Operation Plan, (5), (a)**; due to failure to identify location of Endangered Ecological Community (EECs), erroneously identifying rainforest, inaccurately identifying locations of existing and proposed roads and log dumps, and failure to amend the plan to identify locations of species in the Listed Species Ecological Prescriptions before resuming forestry operations (ie Marbled Frogmouth exclusions, owl locations, Koala high use trees, various threatened plants).
- 2) **4.1 Protection of landscape features of environmental and cultural Significance, (1)**; due to failure to identify and protect an Endangered Ecological Community (EEC), and undertaking forest operations (roading) in an EEC without an Ecological Harvesting Plan.
- 3) **4.1 Protection of landscape features of environmental and cultural Significance, (3)**: for failing to identify rainforest in accordance with the protocol (and wrongly deleting mapped rainforest), remapping rainforest outside the ambit of the protocol and undertaking forest operations (roading) in rainforest.
- 4) **4.3 Minimising damage to retained trees and native vegetation, (1) and (2)**; due to debris left piled around bases of numerous trees retained as hollow-bearing and recruitment trees and the bulldozing of marked H and R trees over.
- 5) **4.4 Drainage feature protection, (1)**; for intentionally felling trees into a riparian exclusion zone.

- 6) **5.1 Construction and maintenance of roads, (5)**; due to the stacking of debris within an Endangered Ecological Community
- 7) **5.2 Log landings, portable mill sites and snig tracks, (2)**; due to the excessive clearing for a log dump.
- 8) **5.2.1 Snig tracks and extraction tracks, (1) (2) and (9)**; because of excessive soil disturbance, **(6)**; because of downhill extraction, **(8)**; because of intentional construction within a large number of exclusion zones, **(10)**; because the extraction track exceeds 25 degrees and was unnecessary, **(14) and (15)**; because of inadequate and failed drainage works.
- 9) **Appendix: Listed species ecological prescriptions**; because of failure to apply prescriptions for Koala, Marbled Frogmouth, Masked Owl, Sooty Owl, Slender Marsdenia, Arrowhead Vine and Red Bopple Nut where there was site evidence.
- 10) **Appendix: Listed species ecological prescriptions, General conditions (iii)**; for failure to mark exclusion zones in the field for Marbled Frogmouth, Koala, Slender Marsdenia, Arrowhead Vine and Red Bopple Nut where they adjoined the area subject to forest operations.
- 11) **Appendix: Listed species ecological prescriptions, Koala, (b)**; due to failure to mark exclusion zones around trees with 20 or more Koala scats beneath them, and exclude forestry operations from them.
- 12) **Appendix: Listed species ecological prescriptions, Koala, (c), (iii), (iv)**; due to felling and damaging of Tallowwoods and the stacking of debris around retained trees likely to cause severe damage in the post-harvest burn.
- 13) **Appendix: Listed species ecological prescriptions, Marbled Frogmouth, (a)**; due to failure to implement 20 metre wide exclusion zones on first order streams before resuming logging.
- 14) **Appendix: Listed species ecological prescriptions, B. Threatened and protected flora: 20-metre exclusion zone, all individuals, Slender marsdenia, Red boppel nut**; due to construction of an extraction track through what should have been exclusion zones for numerous records of these species.
- 15) **Appendix: Listed species ecological prescriptions, D. Threatened and protected flora: 20-metre exclusion zone, 90% of individuals, Arrow-head vine**; due to construction of an extraction track through what should have been exclusion zones for numerous records of this species.

It is arguable that the Forestry Corporation have also contravened:

- 1) **Clause 118D of the National Parks and Wildlife Act** in that they did by act and omission harm and pick the Endangered Ecological Community (EEC) Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion
- 2) **Clauses 18 and 18A of the Environment Protection and Biodiversity Conservation Act 1999** in that they constructed a road that had a significant impact on the critically endangered Lowland Rainforest of Subtropical Australia.
- 3) **Clause 12 of the Native Vegetation Act 2003** due to the fact that they cleared native vegetation outside the mapped PVP area within the boundary of the mapped Nightcap National Park (assuming it was not actually in the National Park).

The Office of Environment and Heritage have specifically failed to comply with:

- 1) **Clause 4.1 (3) of the Private Native Forestry Code of Practice for Northern NSW** for failing to follow requirements for remapping rainforest.

- 2) **Clauses 18 and 18A of the Environment Protection and Biodiversity Conservation Act 1999** in that by wrongly deleting rainforest that is the critically endangered Lowland Rainforest of Subtropical Australia they removed its protection and allowed it to be roaded.

The EPA have been intimately involved in this process from the beginning and have by act or omission been complicit in many of the above breaches. They have failed to fulfil their role in a professional, impartial or effective manner.

NEFA recommends that an independent investigation of this issue be undertaken given that the Environment Protection Authority would likely be implicated in any adverse findings. The reported breaches involve both the Forestry Corporation and the Office of Environment and Heritage. The Environment Protection Authority has closely supervised the entire process and bear some responsibility for the outcome. They also refused our request for a Stop Work Order and bear direct responsibility for the consequent killing and harm caused by the track they approved to threatened species.

The finding of so many threatened species on this property that are identified as needing increased protection highlights the need for pre-logging surveys. Looking before they log has to be a requirement. This also highlights the need to review the PNF Code of Practice's definitions of 'records' and 'site evidence' to ensure that if someone records a threatened species on a property that this has to be taken into account and can't be ignored.

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1. Background

Logging of private lands is supposedly regulated by the provisions of the Native Vegetation Act 2003. This act prohibits the clearing (including logging) of native vegetation without either development consent or a property vegetation plan. A property vegetation plan was prepared for this property late last year. A PVP is a voluntary, legally binding agreement between a landholder and the Local Land Services (Catchment Management Authority).

The Private Native Forestry Code of Practice was introduced by the NSW Government in August 2007 and sets the minimum operating standards for harvesting in private native forests. Under the Code, broadscale clearing for the purpose of private native forestry is taken to be “sustainable” and “improve or maintain” environmental outcomes (even when it causes extensive environmental degradation) if:

- it complies with the requirements of the PNF Code, and
- any area cleared in accordance with the Code is allowed to regenerate and is not subsequently cleared.

In this case the logging was undertaken by the Forestry Corporation of NSW (FC) on behalf of the landowner, rainforest and oldgrowth was remapped by the Office of Environment and Heritage (OEH), and the Environment Protection Authority (EPA) closely supervised the remapping, planning and logging. Therefore it should have been an exemplary operation, though it was anything but. If this is the best they can do then the whole PNF process is a sham.

NEFA have been trying since 13 September 2013 to obtain documents detailing their process for remapping rainforest on the property in an effort to ascertain how it was that areas of rainforest were remapped as either cleared or for logging.

It wasn't until the 15 November 2013 that EPA finally informed us that a formal GIPA request was required. NEFA requested the information under the Government Information (Public Access) Act 2009 (GIPA) from both the EPA and OEH on 18 November 2013. It wasn't until the 26 December 2013 (Boxing Day) that OEH and EPA posted the letters to NEFA giving their blanket refusal of every document on the grounds they are “*personal information*” and that their release can “*reasonably be expected to*” “*expose a person to a risk of harm or of serious harassment or serious intimidation*”.

NEFA considers that these are spurious grounds as such documents do not constitute “*personal information*”, we find the notion that such documents could cause harm ridiculous, though we take offence at the imputation that we may somehow use the documents to harm another person. We subsequently requested an internal review, which upheld the refusal. We are now pursuing further appeals in our attempts to find out what it is that OEH and EPA are trying to hide.

The Forestry Corporation provided NEFA with their relevant documents relating to Koalas on the property and did not attempt to suppress them on such spurious and offensive grounds,

1.1. Chronology of Key Environmental Events

This chronology outlines the key environmental events that form the background to this audit. The North East Forest Alliance (NEFA) agrees with the community that the FC acted with unnecessary haste and recklessness. Once the FC were presented with records of numerous threatened plants and animals on the property and denied access by the adjoining landowner, they should have

stopped, undertaken surveys, resolved their access with the neighbour, and consulted with the community before proceeding. Instead they recklessly constructed an extraction track through core Koala habitat and a hotspot of outstanding significance for three threatened flora species in open contravention of the PNF Code. It is disturbing that the EPA were complicit in this.

Friday 13 September 2013. NEFA find 5 Koala high use trees (trees with 20 or more Koala scats about their bases) in the vicinity of the boundary. One Tallowood tree with over 20 scats on the boundary of the property and adjacent to the road shown to the FC's Matt Kenny. Its roots had been damaged when the logging road had been constructed earlier under Mr Kenny's direction.

Tuesday 17 September 2013. Survey for NEFA by David Milledge undertaken from adjoining properties. The fauna survey recorded 3 Marbled Frogmouths, a Masked Owl, a Sooty Owl and numerous Pouched Frogs calling from areas on the property that were currently being logged. None of these Vulnerable species had previously been identified by the Forestry Corporation. The PNF Code of Practice required establishment and marking of 20m exclusion areas on all streams in the area for Marbled Frogmouth and effectively increased retention of the largest trees from 20 per 2 hectares to 30 for the owls. The Forest Operation Plan was required to be amended and the exclusion zones marked in the forest before logging resumed. In addition to the Koala a further 11 threatened fauna species and 3 threatened flora species were identified as likely to occur within the logging area that should also be surveyed for (Appendix 1).

Wednesday 18 September 2013. NEFA wrote to the Hon. Robyn Parker MP, Minister for the Environment, and the Hon. Katrina Hodgkinson MP, Minister for Primary Industries, informing them of these records and stating:

In accordance with the Private Native Forestry Code of Practice for Northern NSW continued logging by the Forestry Corporation is now illegal until they implement the required prescriptions for these species. ...

Accordingly, we request:

- 1. An immediate cessation of logging on Lot 2 DP599556, at Whian Whian,*
- 2. Surveys by flora and fauna experts, marking of exclusion areas, modification of the harvesting plan and public consultation before logging resumes;*
- 3. Dropping of all charges against those arrested trying to stop unlawful logging;*
- 4. A public apology for this abysmal failure by the agencies you are responsible for to appropriately protect threatened species; and*
- 5. Action by you to ensure that threatened species are appropriately protected in logging operations.*

Thursday 19 September 2013. While the EPA supposedly undertake an audit, the adjacent landowners, through whose property the Forestry Corporation had constructed their track and had "Permits to Enter", withdraw access permission. The EPA refuse to meet with complainants until they are ready to leave, and then claim they don't have time to be shown locations of Koala high use trees, though are taken to one next to the access road which has >20 Koala scats beneath it (weeks later the EPA said they still won't accept it, despite being offered statutory declarations from those who were present when the scats were found). In negotiations to exit through the adjacent property, the Forestry Corporation admit they haven't implemented prescriptions for Marbled Frogmouth and forest owls and when forced by protectors to state whether they will in the future, they very reluctantly state "following alleged identification of species have decided to implement a number of prescriptions", but refuse to state which ones.

Friday 20 September 2013. Forestry Corporation's access to the site is blocked by protestors until police are called. Forestry mark route of new access road, though still fail to mark Marbled Frogmouth or Koala exclusion zones.

Sunday 22 September 2013. An assessment by botanists for NEFA record over 60 vulnerable Red Bopple Nuts, 10 vulnerable Arrow-head Vines and 3 endangered Slender Marsdenias in the vicinity of the existing and proposed road. The road route was marked by FC through the centre of a dense stand of 30 Red Bopple Nuts which should have been obvious to anyone. Other NEFA searches find 8 Koala high use trees which Forestry Corporation have not bothered searching, some directly on the path of the new road. On Sunday evening NEFA wrote to the Chief Executive Officer of the EPA, Barry Buffier, requesting he immediately impose a Stop Work Order on the grounds that FC were about to push a new road through a host of threatened species, stating:

Given their ongoing refusal to meet their legal obligations, I ask you to take urgent action to stop Forestry Corporation from continuing to kill threatened species and degrade their habitat in contravention of the Private Native Forestry Code of Practice for Northern NSW by imposing an urgent Stop Work Order in accordance with Section 37 of the Native Vegetation Act 2003.

Monday 23 September 2013. When question by the FC the EPA “laughed” and categorically denied there would be any Stop Work Order. For the next 2 days EPA and Forestry Corporation undertake a joint assessment to identify an alternative route. The EPA engage a “botanist” and the Forestry Corporation have their botanist present, who reputedly deny the presence of Slender Marsdenia though confirm the presence of numerous Red Bopple Nuts and Arrow-head Vines along the route of their proposed track. Foresters also confirm at least one Koala high use tree along the track's route.

Wednesday 25 September 2013. In frustration that Forestry Corporation employees and contractors were frequently trespassing, an adjoining landowner wrote to FCNSW:

We are willing to give Forestry Corp access to get any machines out via our property and in return we would like our contract with Forestry revoked or canceled.

Additionally, we are deeply concerned that Forestry Corp aren't abiding by or observing their own code of practice with regards to doing the correct surveys on our neighbour's property. Some surveys have been done in the corridor area close by and from what I understand there were numerous endangered plant and animal species identified. As such we respectfully request access to the property to conduct the proper survey that the law requires in this circumstance.

Access through our property will be re-considered when these requests have been met. I look forward to hearing back from you regarding this matter.

In the afternoon Forestry Corporation constructed what they called a snig track on an alternative route with oversight by the EPA. This is more properly referred to herein as an extraction track. It was constructed in the vicinity of 3 Slender Marsdenia and a Koala high use tree previously identified by NEFA, as well as numerous threatened plants and one Koala high use tree identified by FC and EPA.

Friday 27 September 2013. As an outcome of negotiations with the landowners, Community Surveys by community members and volunteer botanists (under the supervision of the FC) commence, and continue intermittently (due to other commitments) over weekend. The surveys revealed that the extraction track had passed through 3 endangered Slender Marsdenia (*Marsdenia longiloba*), killing two and leaving the last one injured, the buffer of a Koala high use tree marked by FC, and an unmarked Koala high use tree 4.5m from the extraction track, Multiple records for 2 NSW TSC Act Endangered and 3 Vulnerable plant species, and additional Koala high use areas, were located on the property. Subsequent inspections by NEFA revealed numerous tagged (before track construction) threatened plants affected. NEFA is unable to relocate the 3 endangered Slender Marsdenia previously reported as it appears the track went straight through them, and is unable to verify its identified Koala high use tree because of removal of scats by unidentified persons.

Sunday 29 September 2013. Dr. Kooyman identified the national Critically Endangered “Lowland Rainforest of Subtropical Australia” as occurring in the identified logging area and subjected to roadworks.

Monday 30 September 2013. Verbal complaints were made by NEFA to the EPA about the failure by both the FC and EPA to identify the critically endangered rainforest, with concerns expressed about the area being deleted in remapping of the rainforest undertaken by OEH and the legality of the Branch Creek road. It was brought to the EPA’s attention that the FC were undertaking works on the extraction track, and using the road, without marking the required exclusion zones for most threatened plants and Koala high use trees. The FC’s intent to ignore NEFA’s Koala records in an area about to be logged was also highlighted.

Tuesday 1 October 2013. Due to continuing refusal by the FC to honour the adjacent landowner’s repeated requests he writes unequivocal letter to FCNSW revoking permission to enter his land, particularly the Permit to Enter. FCNSW write to landowner claiming this to be a breach of contract, and giving them 24 hours to withdraw the revocation, claiming that *“as a result of that breach FCNSW will be unable to remove timber from its logging operation on the Helle property”*. Undaunted the Forestry Corporation used the extraction track to remove logs.

Tuesday 8 October 2013 adjoining landowners inform Forestry Corporation that they will continue to allow them access across their land.

Wednesday 9 October 2013. NEFA provide ‘North East Forest Alliance Audit of Whian Whian Private Property’ to EPA. Forestry Corporation worker injured by falling branch (who later dies). Forestry Corporation say logging due to be completed next day.

2. Hollow-bearing and Recruitment trees

The presence of scattered large old hollow-bearing trees, hundreds of years old and bearing the large hollows essential for nesting by owls, and the nearby records of Sooty and Masked Owls, made it readily apparent that these species would occur on the property. However neither the landowners nor the Forestry Corporation would apply the prescription requiring enhanced retention of the hollow-bearing trees essential for both them and a variety of their prey.

On the 17 September NEFA undertook a survey for these owls from adjacent properties and recorded Sooty and Masked Owls. Under the PNF Code this meant the requirements for the retention of habitat trees was increased from 10 to 15 hollow-bearing trees per 2 ha and from 10 to 15 recruitment trees per 2 ha. Due to the limited numbers of senescent hollow-bearing trees, this requirement basically means that in addition to retaining the remaining hollow-bearing trees, sufficient late-mature and mature trees need to be retained to ensure retention of 30 of the largest trees per 2 hectares.

To obtain an indication of retention rates the community assessed a transect 140m long by 40m wide (0.56ha). Time constraints precluded a 1 ha transect being completed. The results indicated that habitat tree retention rates are likely to be adequate, particularly given the large number of exclusion areas resultant from threatened species records. It is of concern that one of the 4 trees with a diameter over 100cm was logged given that it is evident that all such trees should have been retained.

TREE RETENTION OVER 0.56HA AREA

	Diameter at breast or stump height (cm)			
	40-59	60-79	80-99	100+
Stumps	1	5	5	1
Live trees	18	11	8	3

Of most concern was the fact that of the 12 trees located in the community transect that were marked for retention (2xH, 3xR and 6 with horizontal line) 4 had damaged bases and 7 (2xH, 2xR and 3 with horizontal line) had significant amounts of logging debris left around their bases.

This was found to be a frequent problem with debris left around the bases of numerous trees marked for retention throughout the logging area.

The PNF Code states:

4.3 Minimising damage to retained trees and native vegetation

- (1) As far as practicable, forestry operations must not damage protected trees.
- (2) Without detracting from subclause (1):
 - (a) debris must not be heaped around protected trees
 - (b) machinery operations must not harm protected trees
 - (c) directional felling techniques must be employed to avoid (as far as is practicable) damage to protected trees.

The Koala prescription also states:

- (iii) Damage to retained trees must be minimised by directional felling techniques.
- (iv) Post-harvest burns must minimise damage to the trunks and foliage of retained trees.

It is evident that in terms of debris that there has been no attempt to comply with the PNF Code, and that there has been significant damage caused to some retained trees by having trees dropped

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on them. Through their cavalier approach the FC have clearly breached section 4.3 of the PNF Code and the Koala prescription in relation to minimising damage to retained trees. If the extant debris are left around the base of trees and burnt then this will cause extensive damage to retained trees.



Examples of the many hollow-bearing trees with debris left stacked around their bases ready for burning. Note that on the bottom right the debris has been stacked against a dead section of the trunk of this centuries old Tallowwood (145cm dbhob, note the person to the left, 530825 6834857). The two marked H trees at top left are at 530341 6834897.

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Examples of debris being left around hollow bearing trees ready for burning. LEFT 530473 6834884 RIGHT 530472 6834875



Damage to retained trees. LEFT: Marked R tree (right of R, 530450 6834780) which has had a tree dropped on it and debris left around it. RIGHT: Shattered Tallowwood required to be retained as a Koala feed tree (530803 6834857).

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Examples of the many recruitment trees with debris left around their bases ready for burning. (Top LEFT 530474 6834820, Top RIGHT 530437 6834862). The bottom recruitment trees are Tallowwoods, the tree on the left is not marked for retention, though 5 Koala scats were located in the small area able to be searched, suggesting it may have been a Koala high use tree (it is at 530504 6834912). The debris around the nearby Tallowwood on the right prevented searching.

3. Threatened Species

When NEFA initially inspected the property, the only records of threatened species appearing on the Forest Operation Plan were two 1995 records made on the adjacent national park of a Golden-tipped Bat and Albert's Lyrebird. Though the FC had made the concession that Koalas occur on the property and had implemented the general prescriptions for them. They had no intent of identifying the other threatened plants and animals for which this property provided prime habitat unless they happened upon them while doing tree marking.

It was clear that the Forestry Corporation had not undertaken surveys for the array of threatened species likely to occur on the property and had no intention to do so.

During the course of our investigations NEFA, and the community, have proven the presence on the property of 6 TSC listed Vulnerable animals: Alberts Lyrebird, Marbled Frogmouth, Sooty Owl, Masked Owl, Koala and Pouched Frog. And 5 threatened plants: two TSC listed Endangered species (*Endiandra muelleri* ssp. *Bracteata*) and Slender Marsdenia (*Marsdenia longiloba*) and three TSC listed Vulnerable species Corokia (*Corokia whiteana*), Red Bopple Nut (*Hicksbeachia pinnatifolia*) and Arrow-head Vine (*Tinospora tinosporoides*). A number of other threatened fauna species are likely to occur (Appendix 1).

On the 14 September NEFA found 5 Koala high use trees on the property. On 17 September NEFA recorded 3 Marbled Frogmouths, a Sooty Owl and a Masked Owl calling from the property. On the 22 September NEFA identified over 60 Red Bopple Nuts, 3 Slender Marsdenias and 8 Koala high use trees in the path of a proposed new road. 10 Arrow-head Vine were located next to the logging road. On the 27-28 September the Community Survey located more Koala high use trees and threatened plants, including Green-leaved Rose Walnut and Corokia. NEFA has identified numerous other localities for threatened species in the course of this audit, many of which were previously tagged in either Community surveys or by the FC.

The one day plant survey undertaken for the Community Survey (Kooyman, Nicholson and Nicholson, 2013, "Environmental Assessment of PNF Logging for Landholders and the Whian Whian Community) found a total of 181 species from 74 families noting:

This included two TSC listed Endangered species (*Endiandra muelleri* ssp. *bracteata* and *Marsdenia longiloba*) and three TSC listed Vulnerable species (*Corokia whiteana*, *Hicksbeachia pinnatifolia* and *Tinospora tinosporoides*) ... In addition we detected three ROTAP species (*Acronychia baeuerlenii*, *Archidenron muellerianum* and *Austrobuxus swainii*). One EPBC Act (1999) Endangered Ecological Community (Lowland Subtropical Rainforest on Basalt derived soils in NSW and SEQld).

In total NEFA have identified 8 Koala high use trees, 10 Slender Marsdenia, 30 Arrow-head Vines, and 36 Red Bopple Nuts that have had forestry operations within what should have been 20m exclusion zones around them had they first been identified. 3 Slender Marsdenia are missing, presumed dead, with another two confirmed dead and one injured. A Red Bopple Nut was injured and an Arrow-head Vine killed. There are also numerous Arrow-head Vines and Red Bopple Nuts within areas of mapped rainforest that were deleted and thus have had their protection removed.

The main access road was constructed within what should have been exclusion zones for at least 4 Koala high use trees, 1 Slender Marsdenia, 18 individual Arrow-head Vines and 27 Red Bopple

Nuts, and within the Endangered Ecological Community Lowland Subtropical Rainforest of Australia. One of the Red Bopple Nuts was damaged in road construction and other individuals, particularly of Arrow-head Vine, are likely to have been bulldozed.

The extraction track was constructed with the approval of the EPA within what should have been exclusion zones for 1 Koala high use tree, 1 Slender Marsdenia, 12 Arrow-head Vines, and 8 Red Bopple Nuts, that had been identified and tagged prior to track construction, with the distinctive pink flagging tape still evident and able to be audited. One tagged Arrow-head Vine has since died. In an attempt to deny culpability the EPA said to us that all these trees had reputedly been tagged by NEFA on the 22 September as the FC used white flagging tape. While most of the Red Bopple Nuts may have been tagged by NEFA, we did not search the area where the tagged Slender Marsdenia and Arrow-head Vines are and did not find any Arrow-head Vine in this vicinity. We have not found a single tree or shrub with white flagging tape.

Three Slender Marsdenia identified by NEFA prior to track construction have apparently been eliminated and 3 more were found in debris beside the track, with 2 dead and one injured. A Koala high use tree reported by NEFA prior to track construction could not be later verified due to removal of Koala scats. Another Koala high use tree, with scats intact, was found next to the track.

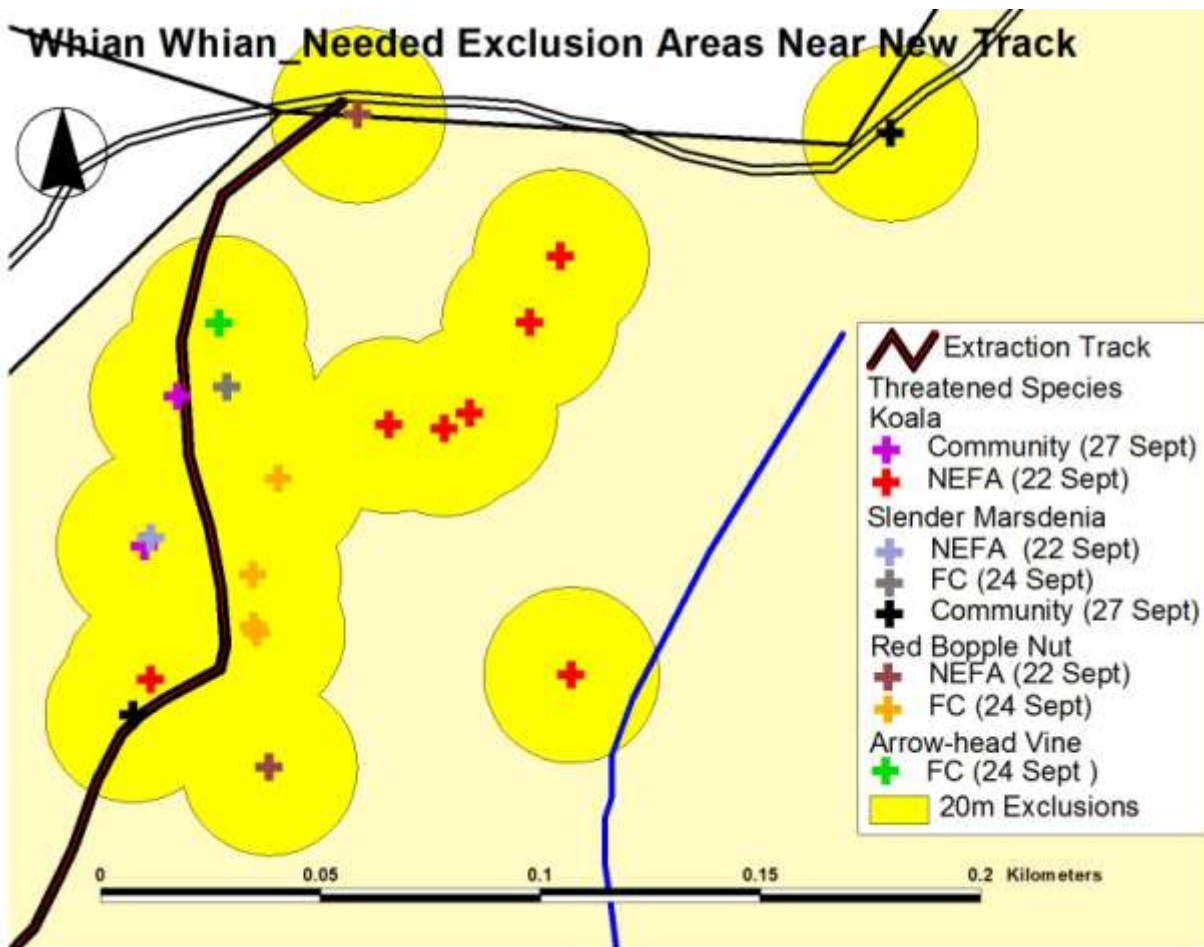
It is important to recognise that the extraction track was constructed after NEFA had identified the presence of these threatened species, after we had requested the EPA for a Stop Work Order to prevent them being killed or damaged, and under the supervision of both the FC and EPA, along with their respective botanists. These numerous contraventions of the PNF Code were deliberate and both agencies are culpable.

After the Community Survey logging was undertaken within what should have been an exclusion zone for at least 2 Slender Marsdenias and 1 Red Bopple Nut in an area adjacent to Nightcap National Park not covered in the Community Survey. A track was constructed within what should have been an exclusion zone for another Koala high use tree. This logging occurred after foresters had been shown these species nearby during the Community Survey and the FC should have been capable of identifying them by themselves.

Threatened species believed to have been inadequately protected are dealt with in subsequent sections; The community survey identified two additional threatened plant species, both of which are threatened by the activities:

Green-leaved Rose Walnut *Endiandra muelleri* ssp. *Bracteata* The Recovery Plan (2004) identifies “One consequence of logging disturbance and clearing is to favour forest invasion by *Lantana* (*Lantana camara*), which alters the structure of the habitat, and may smother seedlings and small trees”. Both the TSL and PNF Code require exclusion zones of at least 50 m radius must be implemented around all individuals.

Corokia whiteana NSW identify threats as (DECC, 2005) “forestry operations; inappropriate fire regimes; and invasion of habitat by weeds”. The Commonwealth identify threats as “Logging and Wood Harvesting: Habitat loss, modification and degradation due to timber harvesting”. A key action is to protect remaining habitat from clearing, timber harvesting and fragmentation. Both the TSL and PNF Code require that exclusion zones of at least 20 m wide must be implemented around 90% of individuals.



MAP: Threatened species reported by NEFA to EPA on 22 September, species tagged by NEFA on 22 September and/or subsequently tagged by FC on 23-5 September, and species identified in community survey of 27 September. The western Koala high use tree identified in the community survey was previously identified by FC and EPA on 24 September. Plant localities are often for multiple individuals. Included are indicative 20m buffers. Note that the extraction track was constructed through what should have been exclusion zones for many species.

Both the Green-leaved Rose Walnut and Corokia were found within the logging area. The Green-leaved Rose Walnut would have had part of its exclusion zone protected within the Marbled Frogmouth exclusion area. The Corokia had no protection. It is doubtful that they would have been found and appropriately protected without volunteers, though the Green-leaved Rose Walnut exclusion area hasn't been investigated by NEFA to see if it was implemented.

The finding of so many threatened species on this property that are identified as needing increased protection highlights the need for pre-logging surveys. Looking before they log has to be a requirement. This also highlights the need to review the PNF Code of Practice's definitions of 'records' and 'site evidence' to ensure that if someone records a threatened species on a property that this has to be taken into account and can't be ignored

The NSW Recovery Plan for Green-leaved Rose Walnut identifies that "To improve the consideration of the Green-leaved Rose Walnut and the Rusty Rose Walnut in environmental impact assessments for developments and activities:

A standard minimum survey effort should be undertaken when determining if the Green-leaved Rose Walnut and the Rusty Rose Walnut are present in or near the area of a potential development or activity. The presence of either taxon should require

implementation of effective mitigation measures to reduce the impact of any proposed development or activity.

Numerous exclusion zones were not marked in the field around Koala high use trees and threatened plants and were subject to forestry operations. The main access road was bulldozed through what should have been exclusion zones for numerous Koala high use trees, threatened plants and even a Critically Endangered ecosystem. After being notified of the presence of Marbled Frogmouth the FC went on logging without marking exclusion zones. The extraction track was bulldozed through what should have been exclusion zones for numerous Koala high use trees and threatened plants, after they had been identified by the FC and without boundary marking. It took repeated complaints over records of some Koala high use trees before exclusion zones were implemented. The features identified in the Community Survey that were in areas yet to be logged had their exclusion zones applied, though incursions into what should have been exclusion zones for threatened plants not identified in the Community Survey were subsequently found.

The FC can use ignorance as their legal defence against incursions into most exclusion zones, though it is hard to fathom how they couldn't notice the Red Bopple Nuts and Arrow-head Vine right next to their road. NEFA brought the need to mark exclusion zones to the attention of the EPA following FCs refusal to do so for Marbled Frogmouth, so everyone should have been aware of this requirement. It is their failure to mark and protect the required exclusion zones for the Marbled Frogmouth before resuming logging, and around the records they had identified in the path of the extraction track, that is inexcusable.

The PNF Code states:

Appendix: Listed species ecological prescriptions

General conditions

For all threatened species prescriptions, the following applies:

- ...
- Buffer and exclusion zones are to be marked in the field where they adjoin the area, subject to forest operations. This marking has to be visible while forestry operations are occurring.

The construction of the extraction track without marking of the required 20m exclusion zones in the area was a deliberate and intentional breach of the PNF Code. Some marking of boundaries along the track occurred some days after it was constructed, though even then the track was used as one boundary, irrespective of the distance from the plant or Koala high use tree. For example, when the exclusion for the Slender Marsdenia was marked it was limited to one side of the track only, despite the plants being situated immediately adjacent to the track.

3.1. Koalas

Discussions with the Forestry Corporation (FC) on 14 September 2013 revealed that they had found evidence of Koalas on the property and were thus applying the Private Native Forestry Code of Practice requirement to retain 10 primary koala food trees and 5 secondary koala food trees per hectare. Forestry Corporation said that to achieve this they were basically excluding most Tallowwoods from logging, with only "a few" proposed for removal.

The FC also stated that they had found 2 Koala high use trees (ie with ≥ 20 Koala scats under them).

The PNF Code states:

Koala (*Phascolarctos cinereus*)

(b) Any tree containing a koala, or any tree beneath which 20 or more koala faecal pellets (scats) are found ... must be retained, and an exclusion zone of 20 metres ... must be implemented around each retained tree.

Community concerns that this property is of exceptional value for Koalas, and that Koala's were not being adequately protected, were confirmed by subsequent inspections by both NEFA and the community. It is evident that, like on public land, the FC does not want to thoroughly search for Koala scats because they do not want to apply the minimalist prescription for the protection of Koala high use trees. The difference is that on private land there is no legal obligation to look.

During the course of NEFA's investigations we have found 16 Koala high use trees with 20 or more Koala scats beneath them. The Community Surveys of the weekend of 27-29 September found 12 Koala high use trees with limited searching, one of which had already been identified by NEFA. The 31 Koala high use trees identified include 2 principal clusters of 7 and 10 trees focussed on stands of Tallowood that NEFA considers represents core Koala habitat and are discussed below.

Four Koala high use trees have been identified within 20m of the logging road. Another 3 had the extraction track constructed within 20m, one of which the FC had previously identified. One on the park boundary had a track constructed within 20m.

NEFA have identified 4 Koala high use trees that the FC have constructed roads and tracks within 20m of, and the community survey identified 4 more (one of which had been previously identified by FC), and there are likely to be more. Of these, at least one was identified by the FC in the presence of the EPA, prior to construction of the extraction track. The extraction track was constructed within 20m of an additional high use tree identified by NEFA and reported to both the FC and EPA, though after being reported a person (who apparently knew of this and other records) interfered with the evidence, which stopped us from subsequently verifying the record. The FC thus knowingly undertook forestry operations within exclusion zones for Koalas.

NEFA left all the Koala scats beneath the trees they were found under and provided GPS localities to both FC and EPA. The EPA refused to investigate the trees we reported, despite regularly visiting the logging operation. Even when we took them to one they refused to count the scats under it and refused to accept it as a high use tree. When we reported the Koala high use trees in the path of a road and asked for a Stop Work Order the EPA came out the next day though refused to check the trees we reported until 5 days later, by which time a track had been constructed near one. When they acceded (during the Community Survey) to NEFA's repeated requests to check our records in the vicinity of the road someone had removed most of the scats from beneath the trees. In our efforts to have the EPA investigate we offered the EPA statutory declarations from those present for all high use trees we identified, though the EPA wouldn't even question us about them.

Because the EPA refused to verify the Koala high use trees we reported to them, the FC refused to accept and protect them. The FC have accused NEFA of moving Koala scats, and use this as their excuse for ignoring and refusing to protect Koala high use trees we identify. NEFA consider this an

outrageous slur To the contrary NEFA knows that someone has been removing scats from beneath Koala high use trees and believe it is a forester who is trying to stop Koala high use trees from being protected.

Unfortunately the ability to obtain a comprehensive view of Koala distribution across the property has not been possible due to the extensive debris around potential feed trees precluding searching and the fact that somebody has been removing Koala scats.

In the course of its investigations NEFA have identified two core Koala areas with significant Koala usage. We managed to have one of these protected, despite the FC and EPA, unfortunately the FC constructed a track through the other under the supervision of the EPA.

NEFA has previously reported all its Koala records to the EPA, with the additional one found in this audit detailed in the section on Nightcap National Park. See "Tree retention" for an assessment of compliance with PNF Code (c)(iii) and (iv).

CORE KOALA HABITAT 1

A brief assessment by NEFA of trees in the vicinity of the boundary on 14 September located 5 Koala high use trees, none of which had apparently previously been thoroughly searched, though 1 had been marked with a K suggesting sufficient scats had been found by FC to identify it as a high use tree. A Koala high use tree, that showed no signs of being searched before, was found with a new road constructed right next to it, and the scats at the base of the tree were shown to the Forestry Corporation on the day. The FC were provided with GPS localities for 4 of the 5 trees.

At the EPA's request, they were provided with the Koala records the day before their site inspection of 19 September. Regrettably the EPA refused to meet with NEFA until they were just about to go, by which time they claimed it was too late to check out the Koala records, though they did agree to being shown the one next to the road on their way out, though failed to count the scats NEFA had found and left beneath the tree or look for scats themselves. Weeks later the EPA were still refusing to accept any of those reported by NEFA as Koala high use trees despite making no attempt to check the trees for themselves, or question witnesses to the searches, or accept NEFA's offers for those there when they were found to sign statutory declarations.

Given that the FC were proposing to log the principal area we had identified on 14 September, the EPA's refusal to investigate it for themselves, and the fact that somebody had been removing scats left beneath trees by NEFA elsewhere (see below), NEFA reassessed the 5 records (3 high use trees) we had reported to the Forestry Corporation from this area. These were in a remote area where they were unlikely to have been disturbed by anybody else, except during the Community Survey.



TOP LEFT: Tree found to be Koala high use tree on 14 September (Tallowwood to left of rd 529925 6834598), scats shown to FC and EPA but not accepted. Scats were left beneath all trees where they were found though neither the FC nor EPA would accept them as high use trees, despite the EPA stating they would accept any tree with 20 scats beneath them. BOTTOM LEFT they even refused to accept one marked with a K by the FC before NEFA's search.

Results of check on Koala scat trees reported to Forestry Corporation on 14 September

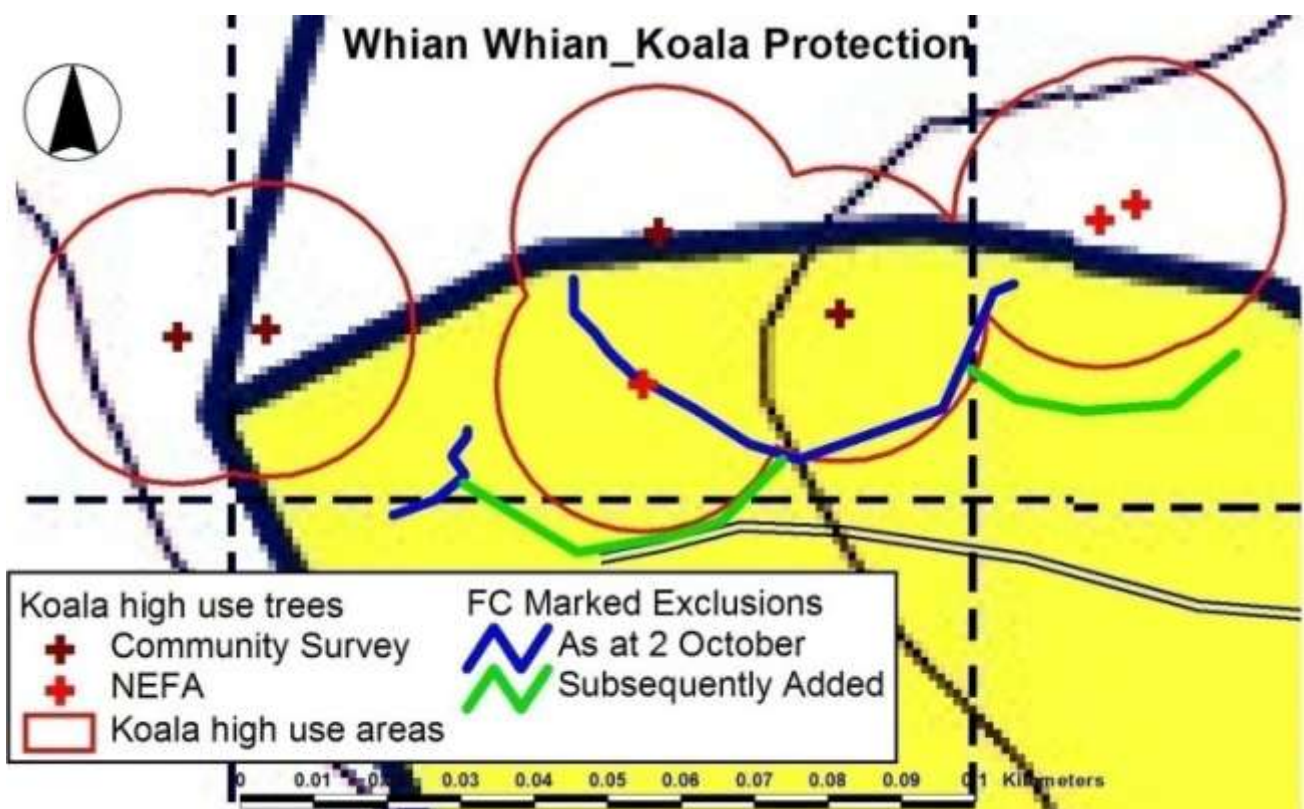
	Location (AMG)		SCATS Reported 14/9/2013	SCATS found 2/10/2013		Exclusion Zone applied 2/10/2013
	LAT	LON		Left in pile	Additional	
1	6834732	530143	20+	16	21	No
2	6834725	530135	4	4		na
3	6834759	530215	20+	17	8	No
4	6834759	530218	20+	18	4	No
5	6834745	530177	15	22		Yes

For the 3 high use trees identified by NEFA on 14 September some scats appeared to have been removed from the scat piles to reduce their numbers to below 20, though quick searches readily found scats within 1m of their trunks to raise the totals above 20 again. NEFA considers that any inspection of these trees would have confirmed them as Koala high use trees.

A review of the data revealed that, despite not being given details of these records, the Community Survey had found one of the Koala high use trees identified by NEFA, additional scats under 1 tree where NEFA had identified 15 scats (no. 5) making it a high use tree, and 3 new nearby trees. The Community survey validated NEFA's identification of this area as important core Koala habitat, though apparently missed two of the trees identified by NEFA, which we subsequently re-confirmed on 2/10/2013 as Koala high use trees.

NEFA consider it apparent that there had been interference with the scats they had found and reported, and that despite this sufficient scats remained around the trees to make them readily identifiable as high use trees. NEFA found that on 2 October two of these trees (3&4) were excluded from Koala exclusion areas marked around other trees in the vicinity, and one (1) was only 2.7m within an exclusion zone established for another tree. This later tree was the only one marked with a "K" by the FC on the first visit. Given the abundant scats under it then it is likely it was originally identified as a high use tree by the FC, it is thus particularly surprising that it was not given an exclusion zone.

NEFA repeatedly complained to the EPA about the failure to investigate and protect these trees. When inspected again as part of this audit, the exclusion zones had been remarked to include all of NEFA's trees. It is disappointing that it took community intervention and persistent complaints to get these trees identified and protected. It is outrageous that neither the FC nor EPA would accept the Koala high use tree beside the road after being shown the scats.



MAP: Records of Koala high use trees with required 20m Koala high use exclusion areas, compared to marked exclusion zone boundaries as found on 2 October and in this audit. Note that some the high use trees are outside the mapped property, but within the boundary as marked on the ground by FC (see Nightcap National Park for explanation).

CORE KOALA HABITAT 2

In response to the FC's proposal to construct a new road, on the 22 September NEFA searched trees in its path for Koala scats, none of which had apparently been searched before. NEFA identified 8 Koala high use trees and numerous threatened plants in the vicinity. The locations for 7 Koala trees were reported to the FC and EPA, and the EPA were asked to impose a Stop Work Order on the basis that the road would affect Koalas and three threatened plant species. The EPA refused the request.



Examples of Koala scats found, many of which were later removed in an apparent attempt to stop them being identified as high use trees.

While the EPA undertook a site inspection of this specific area on the 24 September the EPA refused to check NEFA's Koala scat records until requested to by NEFA during the Community Survey 5 days after they had been reported. By then somebody had removed many of the Koala scats left under the trees.

The FC constructed their extraction track on 25 September, going through what should have been an exclusion zone for one of NEFA's Koala high use trees (due to extensive interference with scats this wasn't able to be subsequently verified). As part of the community survey on the 27 September 2 additional Koala high use trees were identified in the vicinity of the extraction track and these were shown to the EPA. The EPA said they had supervised FC searching both trees.

One Koala high use tree had been marked with a "K", though the EPA would not admit it was identified by the FC before building the track until a few days later. Significant debris had been pushed to within 12 metres of this tree, with the edge of the track surface 15 metres away. The other tree had apparently been searched by FC, with a pile of 9 large male Koala scats sprayed pink found under it. An additional 16+ scats were found on 27 September. The EPA arrived while

this tree was being searched though declined to participate. The snig track resulted in significant disturbance to within 3.2m of this tree, with the edge of the track 4.5m from the tree.



LEFT: The Koala high use tree beside the snig track (marked, centre 530046 6834725). RIGHT: The identified Koala high use tree (530039 6834691).

It is concerning that as at 2 October people were reporting that no exclusion zones had been marked around either of the Koala high use trees (or the nearby Slender Marsdenia) near the extraction track, despite significant works being undertaken on the track. This was reported to the EPA (who had been out there auditing). A subsequent inspection on 8 October found that an exclusion zone had been marked in the vicinity of the Forestry Corporation's Koala high use tree (and Slender Marsdenia), though not the other one.

At NEFA's insistence, on 27 September the EPA were taken to 5 of NEFA's high use trees in order to verify them, though someone had removed most of the scats from under them. The Community Surveys and later investigations by NEFA concluded that Koala scats appeared to have been removed from stands of Tallowwood elsewhere. NEFA considers this tampering with evidence and believes it represents a new low in threatened species management by NSW Government agencies.

It is apparent that the FC intentionally constructed their extraction track through what should have been an exclusion zone for at least one Koala high use tree, and another that should have been identified as a high use tree had it been properly searched. The track was also constructed though what should have been an exclusion zone for a Koala high use tree identified by NEFA, though due to the EPA's refusal to check the record for themselves and interference with the evidence, this was not able to be subsequently verified by us. It is also evident that sometime between 22 and 27 September, while both FC and EPA were supposedly searching for Koala scats (and should have

been checking NEFA's records), someone removed Koala scats from under numerous high use trees identified by NEFA.

3.2. Marbled Frogmouth

From the high quality habitat available on the property, particularly the well developed rainforest near streams and fringing wet eucalypt forests, and the numerous records in the adjoining Nightcap National Park, it was obvious that the Vulnerable Marbled Frogmouth would inhabit the property. As the FC had no intent of undertaking surveys or applying the necessary prescriptions, NEFA decided that it needed to do the FC's job for them.

The Marbled Frogmouth, *Podargus ocellatus*, is the smallest frogmouth and is best distinguished from other frogmouths (such as the more familiar Tawny Frogmouth) by their loud bubbling, gobbling territorial call ending with a bill clap and a softer but diagnostic repeated *whoor-loop* contact call.



The vulnerable Marbled Frogmouth is a local inhabitant of wet forests. It is best distinguished from its relative the Tawny Frogmouth by its distinctive call. Each valley in the logging area had its own pair. (Photo D. Milledge)

In Australia, there are two widely separated subspecies of Marbled Frogmouth, one confined to central-eastern Cape York Peninsula, and other currently restricted to south-eastern Queensland and north-eastern NSW, between about Gladstone and Lismore, and inland to Burnett Range in Queensland and west of the Great Dividing Range in NSW.

Office of Environment and Heritage identify threats for this species as:

- *Clearing, fragmentation and isolation of rainforest and associated wet eucalypt forests for agriculture and forestry has been the main cause of past declines and continue to operate as a threat for the species.*
- *Opening of the canopy and promotion of dense understorey growth caused by timber harvesting.*
- *Invasion of habitat by weeds following disturbance.*

For the CRA the Commonwealth used expert workshops, including experts from Forests NSW and National Parks and Wildlife Service, to identify and rank threatening processes and set reserve

priorities (Response to Disturbance Project, Environment Australia 1999). For Marbled Frogmouth the Commonwealth's Response to Disturbance project identifies that critical feeding habitat requirements as *"large nocturnal insects (these tend to be in higher abundance in old growth), sparse understorey, high cover of canopy, little or no midstorey"* and sheltering habitat requirements as *"High canopy cover; vine tangles, large rainforest trees, small horizontal branches"*. The experts identified logging as the major threat to this species, with primary threats being *"selective logging wet sclerophyll, Aust group selection, reducing forest age, weed invasion, thinning"*. It was one of the highest priority (1) species for inclusion in the reserve system, with the experts recommending *"reserve all modelled habitat"* with a *"Focus on known locations"*.

Similar to the TSL (6.8), the PNF Code requires:

Where there is a record of a marbled frogmouth within an area of forest operations or within 30 metres of the boundary of the area of forest operations, the following must apply:

- (a) An exclusion zone at least 20 metres wide must be implemented on both sides of all first-order streams (see Figure 3) in the area to be logged
- (b) An exclusion zone at least 30 metres wide must be implemented on both sides of all second-order streams (see Figure 3) in the area to be logged.

On the night of Tuesday 17 September NEFA engaged David Milledge to undertake surveys for Marbled Frogmouth, from the adjoining property. We heard calls of 3 Marbled Frogmouths calling from 3 separate catchments, a Sooty Owl and a Masked Owl on the property (Attachment 1). This site evidence was reported to the EPA and Forestry Corporation on Wednesday morning. The PNF Code required stream exclusions to be increased from 5m to 20m for the Marbled Frogmouth and for an additional 10 of the largest trees to be retained per 2 hectares for the owls. The Forest Operation Plan was required to be modified and the exclusions marked in the forest.

Despite now having clear evidence, which would have been readily verifiable in another survey, the Forestry Corporation refused to implement the prescriptions for these species and went on logging without amending the Forest Operation Plan to include provisions for these species or marking the boundary of required exclusion areas in the forest. It appeared that the Forestry Corporation were relying on a legal technicality as to what constituted a "record" or "site evidence" to avoid having to implement the minimal prescriptions for these species.

It wasn't until after the neighbours closed access on Thursday afternoon, that Forestry stopped logging and reluctantly committed to implementing the prescriptions. Rather than welcoming help with implementing needed prescriptions for threatened species the Forestry Corporation resisted applying them. This displays a contempt for threatened species and the need to minimise impacts for those species that have been identified as particularly vulnerable to logging.

NEFA maintains that the FC breached the letter and intent of the PNF Code by continuing to log without identifying the required exclusion zones for the Marbled Frogmouth, and for not identifying the records on their harvesting plan.

3.3. Owls

From the high quality habitat available on the property, the presence of large hollow-bearing trees, and the numerous records in the adjoining Nightcap National Park, it was obvious that at least one of the three threatened owls in the vicinity would inhabit the property. As the FC had no intent of undertaking surveys or applying the necessary prescriptions, NEFA decided that it needed to do the FC's job for them.

On the night of Tuesday 17 September NEFA engaged David Milledge to undertake surveys for Marbled Frogmouth and owls, from the adjoining property. We heard calls of 3 Marbled Frogmouths, a Sooty Owl and a Masked Owl on the property (Attachment 1). This site evidence was reported to the EPA and Forestry Corporation on Wednesday morning.

The Vulnerable Sooty Owl inhabits subtropical and warm temperate rainforest, and moist eucalypt forest with a well-developed mid-storey of trees or shrubs. They nest in the big hollows in the trunk and branches of large trees hundreds of years old. The Sooty Owl feeds on a variety of arboreal and terrestrial mammals, especially rodents, antechinuses, small possums and gliders, and on some birds and large insects. Loss of hollow-bearing trees as nests and homes for both owls and prey species is a significant threat.



The Vulnerable Masked Owl's diet typically consists of tree-dwelling and ground mammals, especially rats. It uses large hollows in tree trunks in moist eucalypt forested gullies for nesting, and may also roost in dense understorey trees. It prefers forest with sparse, open, understorey, for hunting ground mammals. An identified threat is "*Loss of mature hollow-bearing trees and changes to forest and woodland structure, which leads to fewer such trees in the future*".

For the CRA the Commonwealth used expert workshops, including experts from Forests NSW and National Parks and Wildlife Service, to identify and rank threatening processes and set reserve priorities (Response to Disturbance Project, Environment Australia 1999). For Sooty Owl the most significant threat is identified as "*logging which reduces prey mammals - where arboreal and terrestrial prey are affected*". For Masked Owls the most significant threat, after clearing, was identified as "*logging which increases structural density of forest - where affects mid to ground layer affects manoeuvrability*". Disturbance to nest and roost sites is identified as a threat to both species.

The PNF Code requires that within 1km of a record of either owl that the following additional prescriptions must be implemented:

(i) A minimum of 15 trees per 2 hectares with visible hollows must be retained where available.

(ii) A recruitment tree must be retained for each hollow bearing tree retained.

Where the total number of hollow bearing trees and recruitment trees is less than 30 trees per 2 hectares, additional recruitment trees must be retained to bring the number up to 30 trees per 2 hectares.

(iii) Disturbance to understorey trees and shrubs, ground logs, and rocks and litter must be minimised.

The PNF Code (5) specifies that a Forest Operation Plan must contain a map identifying “recorded locations of ... species in the Listed Species Ecological Prescriptions for Northern NSW Forests”. It must also include written details of flora and fauna management actions.

Despite now having clear evidence, which would have been readily verifiable in their own survey, the Forestry Corporation refused to implement the prescriptions for these species and went on logging without amending the Forest Operation Plan to include provisions for these species or marking the boundary of required exclusion areas in the forest. It appeared that the Forestry Corporation were relying on a legal technicality as to what constituted a “record” or “site evidence” to avoid having to implement the minimal prescriptions for these species.

It wasn't until after the neighbours closed access on Thursday afternoon, that Forestry stopped logging and reluctantly committed to implementing the prescriptions in the future. Rather than welcoming help with implementing needed protection for threatened owls the Forestry Corporation resisted applying them. This displays a contempt for threatened species and the need to minimise impacts for those species that have been identified as particularly vulnerable to logging.

NEFA maintains that the FC breached the letter and intent of the PNF Code by continuing to log without applying the increased habitat tree retention requirements and for not identifying the records and prescriptions on their harvesting plan.

3.4. Albert's Lyrebird

NEFA expected the Albert's Lyrebird to occur as the property constituted high quality habitat for this species. Due to our limited access and their reluctance to call outside the winter breeding season, it was not until undertaking this audit that we observed one on the property (6834655, 529950). By this stage it makes no difference as the logging is finished. Though this record confirms the obvious presence of Albert's Lyrebird on the property and the need to apply the prescription, a fact that should have been identified by the Forestry Corporation long ago, particularly as they would have been inspecting the property when Albert's Lyrebirds were actively calling.

Albert's Lyrebird inhabits rainforests and wet sclerophyll forests. OEH note “Higher densities of Albert's Lyrebirds occur in association with a canopy of eucalypts compared with rainforest lacking eucalypts (for equivalent climate), and in wet sclerophyll forest with greater weights of litter and logs and slower rates of litter decomposition”.

Albert's Lyrebird is restricted to a small area of far south-eastern Queensland and north-eastern NSW. In NSW, it is mainly found in the McPherson and Tweed Ranges, but occurs west to the Acacia Plateau in the Border Ranges and south to the Koonyum and Nightcap Ranges, and with an isolated population at the species' eastern and southern limit in the Blackwall Range, between Alstonville and Bagotville.

OEH identify principal threats to this species as:

- *Clearing of rainforest and wet eucalypt forest habitat, and subsequent, fragmentation and isolation of remnant patches, for forestry and agriculture is thought to be the main reason for the decline of the species and continued clearing through forestry activities or for agricultural and residential development remains a threat to the species.*
- *Intensive management of forests, especially loss of optimal wet sclerophyll forest habitat to plantations of eucalypts or Hoop Pines (*Araucaria cunninghamii*), but also including damage to the canopy, understorey and ground layers of rainforest and wet sclerophyll forest habitats through forestry activity. Plantations contain much lower densities (and sometimes zero) of Albert's Lyrebirds than in habitat recovering from selective logging, or optimal habitat.*
- *Invasion of logged or otherwise damaged habitat by weeds, especially Lantana (*Lantana camara*), which reduces suitability of the habitat.*

For Albert's Lyrebird the Commonwealth's Response to Disturbance project identifies critical breeding habitat as "*Wet sclerophyll; temperate subtrop rf; dark southerly slopes sometimes abutting cliffines; ... usually use well developed litter layer - these gradients reflect decrease in litter layer accumulation rate and or moisture levels*", and critical sheltering habitat as "*tree crowns on ridge tops*". The experts identified a threat as "*logging, that alters microclimate and litter dynamics*" and that this species is "*Sensitive to lantana invasion after Disturbance*".

The Forestry Corporation did not record the Albert's Lyrebird on the property, instead applying the prescription to a limited area as a result of an old 1995 record in the adjacent Nightcap National Park. The PNF Code specifies:

Albert's lyrebird (*Menura alberti*)

Where there is an Albert's lyrebird record within an area of forest operations or within 300 metres of the boundary of the area of forest operations, the following must apply:

- (a) An exclusion zone at least 20 metres wide must be implemented on both sides of all first-order streams (see Figure 3) within 300 metres of the location of the record.

Before NEFA recorded the Marbled Frogmouth (and possibly soon after) the Forestry Corporation logged on the south side of the creek on which the Albert's Lyrebird exclusion was identified. When the Forestry Corporation took community members on an inspection on 13 September the FC operational Manager Matt Kenny showed them the Albert's Lyrebird exclusion area and volunteered that they had accidentally dropped a tree into it. This site was inspected as part of this audit. Three marked boundary trees (6834783 530652, 6834784 530660, 6834772 530690) were measured as 15m, 15m and 13.5m from the creek bed at the sites where 4 trees were found to have been felled into the exclusion zone. This is substantially less than the 20m required. Two trees felled into this zone reached to the centre of the creek. One tree may be accidental, though 4 appear deliberate.

However when mapped these sites appeared to be outside the mapped Albert's Lyrebird exclusion area. Though it is within what at some stage became a 20m exclusion zone for Marbled Frogmouth and should have been protected for obviously resident Albert's Lyrebirds. While it should have been protected, the FC may not have been legally required to do so at the time it was logged. The Forestry Corporation appear to have got it wrong in many ways.



LEFT: Photo showing felled trees past exclusion boundary (marked tree on right 530652 6834783). RIGHT: debris extending to creek bed (bottom of photo).

3.5. Slender Marsdenia

Slender Marsdenia *Marsdenia longiloba* (AKA Clear Milkvine) is a slender vine distinguished by its opposite leaves and 5-6 tiny glands at the base of the leaves. It grows in open eucalypt forest, or margins of subtropical and warm temperate rainforest, and in areas of rocky outcrops.

Slender Marsdenia is listed as Endangered under NSW's Threatened Species Conservation Act and Vulnerable under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*. Identified threats include localised extinction due to small population, habitat disturbance due to forestry activities, weed invasion, and inappropriate fire regimes.

The PNF Code requires that “An exclusion zone with at least a 20-metre radius must be implemented around all individuals”.

NEFA and the Community have identified 13 Slender Marsdenia on the property. Of these 5 were apparently killed, one severely damaged, and 4 have had logging and/or roading within what should have been their exclusion zones. More are likely to have been killed or buried under debris. The FC and EPA were notified of the location of 3 of these before they disappeared, and themselves tagged one before they constructed a track through its exclusion area.

On the 22 September NEFA identified what it considered likely to be 3 Slender Marsdenia (which was later confirmed) in the vicinity of the FC's proposed new road (6834693 530040). Flagging tape was placed on an adjacent palm so as not to risk damage to the vine. A photo was provided to the EPA and GPS localities to both EPA and the FC. Three days later, under the supervision of the EPA, the FC constructed a new track through the site and NEFA are now unable to find it or the adjacent palm that had been marked with flagging tape. It appears it was simply bulldozed.



Photo of Slender Marsdenia provided, along with GPS co-ordinates, to EPA on 22 September, three days later under the supervision of the EPA the FC constructed a new track through the site and NEFA are now unable to relocate it.

As part of the Community Survey on the 27 of September botanist Nan Nicholson found that the new extraction track had been constructed through a group of 3 Slender Marsdenia located 40m to the SSW from NEFA's reported location of 22 September (6834653 530036). Two of these had been killed and one severely damaged, as was confirmed by the FC botanist. NEFA inspected this site and do not consider it is the one located on 22 September. Though NEFA's record, and another nearby, emphasises that both EPA and FC botanists should have searched this vicinity thoroughly.

As part of this audit NEFA located another Slender Marsdenia 38m to the NNE of NEFA's September 22 record, and 7m from a drain outlet on the new track (6834727 530057). This one was growing on an Arrow-head Vine and had been marked with flagging tape by the FC. It is apparent that both the FC and EPA should have identified this individual before they violated its exclusion zone. Though a FC comment that "*Doug ... said no*" appears to refer to this species and suggests that despite tagging the vine on which it was growing (and the marking of the centre of the track through a patch of 3) the FC botanist (Doug Binns) may not have recognised this species, even after being alerted to its presence.

During the Community Survey on the 27 of September botanist Nan Nicholson also located another Slender Marsdenia next to the logging road (6834785 530208) that FC had bulldozed debris around. This one is particularly interesting in that the forester charged with identifying threatened species had marked the tree on which the Slender Marsdenia was growing, just below a spray of leaves, as the boundary of a riparian exclusion zone. This shows that the responsible foresters are not adequately trained. The others identified in the Community Survey were subsequently protected.



LEFT: 3 Slender Marsdenia were found in this pile of debris next to track, two were killed and one severely damaged. RIGHT: Slender Marsdenia growing on an Arrow-head vine, marked with tape by FCNSW before track construction, nearest debris 3m, cross drain outlet 7m away and edge of track 10m away.



Slender Marsdenia found growing on marked tree next to road with debris pushed near it. Note the spray of Marsdenia leaves on the trunk above the markings. The marking is for the filter strip, though the forester doing it apparently did not recognise the plant in front of him.

As part of the Community Surveys a further 3 Slender Marsdenia were identified by volunteer botanists before the FC could log or road them. As part of this audit a further 2 Slender Marsdenia were located on the northern boundary of the logging area in an area not covered in the Community

Surveys. One small one was found with debris 1.5 m away and extensive logging within 20m (6834896 530805) and another larger one with logging debris reaching it and again with extensive logging within 20m (6834922 530691). Logging of this area occurred after the Community Surveys and was overseen by foresters who had taken part in the Community Surveys and thus should have been able to identify Slender Marsdenia by then, if they could be bothered looking.



Two Slender Marsdenia (foreground) were found in an area not inspected in the Community Survey that was subsequently logged. Both did not have exclusion zones applied and had extensive logging and debris within what should have been their buffers. It is highly likely that others were killed in the adjacent logging area. These individuals, and the nearby logging, are within the mapped National Park and outside the PVP area (see Nightcap National Park).

3.6. Arrow-head Vine

Arrow-head Vine *Tinospora tinosporoides* is a woody climber with distinctive arrow (heart) shaped leaves that grows in the understorey and is thus readily identifiable. Arrow-head Vine is listed as Vulnerable under both NSW's Threatened Species Conservation Act and the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*. Identified threats include habitat degradation, clearing and fragmentation of habitat due to roads, weed invasion, and inappropriate fire regimes.

The PNF Code requires that "An exclusion zone or exclusion zones at least 20 metres wide must be implemented around 90% of individuals", which "must include areas where the density of individuals is greatest".

NEFA have located 30 Arrow-head Vines in three clusters that have been affected by the logging operations, and expect there to be many more. The road was constructed within what should have been exclusion zones for at least 18 individual Arrow-head Vines, and the extraction track was constructed within what should have been exclusion zones for 12 individuals that had apparently been identified and tagged by the FC prior to track construction, one of these since dying.

When NEFA undertook its inspection of the 22 September we identified a group of Arrow-head Vines adjacent to the main access road (530014 6834494), within the western patch of deleted rainforest. We have identified 14 vines within 20m of the road at this locality, extending up to the road verge, and expect others were killed when constructing the road. Another group (530388

6834303) was found within the eastern stand of deleted rainforest, with at least 4 individuals found 8-20m from the access road, and many more beyond within the deleted rainforest.



LEFT: NEFA counted 14 Arrow-head Vines within 20m of the road in this vicinity, with many adjacent to the road, suggesting many more are likely to have been bulldozed. **RIGHT:** NEFA counted 12 Arrow-head Vines within 20m of the extraction track in this vicinity, with debris from the track construction only 3-5m from the nearest plants.

As part of this Audit, 11 Arrow-head vines were found within a patch (530055 6834743) near the extraction track with roading and debris within 20m. Most were marked with tape indicating they were located by the FC and EPA before the track was constructed. The one closest to the track had tree debris within 5m, earth from the track within 6m and the track edge was 9m away. Another tagged one was found nearby (530069 6834706) mixed up in debris, though has since died.

3.7. Red Bopple Nut

Red Bopple Nut *Hicksbeachia pinnatifolia* (AKA Monkey Nut) is a small tree growing to 12 m high with distinctive large leaves, heavily scented flower spikes on its trunk, and eye catching large red fruit. It is one of the most distinctive threatened plants in the region. There can be no excuse for not identifying it, particularly as it occurs at an unusually high density on the property.

Red Bopple Nut is listed as Vulnerable under both NSW's Threatened Species Conservation Act and the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*. Identified threats include clearing associated with roadworks, habitat degradation, weed invasion, and inappropriate burning regimes.

The PNF Code requires that "An exclusion zone with at least a 20-metre radius must be implemented around all individuals".



Despite having usual large leaves, distinctive fruit sprouting from the trunk, and strongly and distinctively scented flowers – all often at eye height – the Forestry Corporation’s highly trained ecologists were unable to identify a single one until they were pointed out by NEFA

NEFA have identified 27 Red Bopple Nuts (about half tagged) that have had the logging road constructed through their buffers, with one injured. The extraction track was constructed through exclusion zones for at least 8 Red Bopple Nuts that had been identified and tagged by FC prior to the track’s construction. One Red Bopple Nut had logging within its exclusion zone.

When the Forestry Corporation constructed their main access road they did so within what should have been exclusion zones for numerous Red Bopple Nuts if the FC could be bothered identifying them. Without searching hard NEFA have so far located 27 individuals 3-20m from the road: 7 at 529956 6834492, 1 at 529957 6834497. 1 8m south at 529983 6834491, 4 at 530050 6834483, 8 at 530064 6834491, 3 at 530130 6834473, 1 at 530144 6834445, 1 at 53210 6834428 (damaged), and 1 19m north (13m past debris pile) at 530359 6834365. As Red Bopple Nuts are very distinctive, it is obvious that the Forestry Corporation did not bother even undertaking a cursory look for them.

On the 22 September, when the FC were about to construct a new access road, NEFA identified over 60 Red Bopple Nuts in the vicinity of the marked route. A cluster of over 30 Red Bopple Nuts (christened Bopple Grove) had the road marked right through their centre. Most of these were marked with flagging tape by NEFA and key GPS points were provided to the FC and EPA. At that time NEFA did not find any Red Bopple Nuts that had been marked, though this did not deter the FC from later claiming they had already found some of these, with Greg Lollback from the EPA going so far as to claim it was understandable for the FC to mark the route for their new track through Bopple Grove even though they really had no intention of constructing it there!



LEFT: Damaged Red Bopple Nut adjacent to main access road that apparently had a tree pushed onto it. RIGHT: Red Bopple Nut (foreground) near the constructed extraction track with nearby debris.



“Bopple Grove”, showing trees flagged by our botanist, note the distinctive leaves at eye height and the low and distinctive flowers sprouting from the trunk. RIGHT The pink mark on the trunk is the route of the proposed road, the pink flagging tapes are on identified Red Bopple Nuts in the road’s path.

Numerous Red Bopple Nuts were known to be in the vicinity of the extraction track before Forestry Corporation constructed it, undaunted and under the supervision of the EPA they went ahead and constructed the track within what should have been exclusion zones for at least 8 individuals. A cluster of 6 tagged Red Bopple Nuts had debris from the road nearby, extending up to the base of

one individual (530064 6834672). Another close by (at 530063 6834685) had debris within 3m and extensive debris within 6m. At another nearby point on the track (530032 6834637) a tagged Red Bopple Nut was measured as 15m from road debris.



Two of the numerous Red Bopple Nuts known to be in the vicinity before the Forestry Corporation constructed a track within what should have been exclusion zones for at least 8 individuals. LEFT (530063 6834673): Note the extensive debris from the track in the background (6m away) and the palm head at the base of the Bopple Nut (centre foreground) RIGHT (530069 6834706): This tagged one (on left) had debris within 1m and the track was 16m away. A tagged Arrow-head vine (on right) was mixed up with the debris towards the track and later died.

As part of this audit another Red Bopple Nut was located to the north-east of the logging area, with debris up to 2.5 metres away and extensive logging within 20m (530858 6834889). This area was logged after the community survey in an area not then searched. Even after all the controversy and the Community Surveys the FC appear incapable of identifying and protecting even the most obvious threatened species.



RIGHT: Even after all the controversy a Red Bopple Nut was located to the north-east of the logging area with debris up to 2.5 metres away and extensive logging within 20m. This individual and the nearby logging, is within the mapped National Park and outside the PVP area (see Nightcap National Park).

4. Rainforest

NEFA became alarmed when, during the Community Survey on 29 September, Dr. Robert Kooyman identified the nationally listed Critically Endangered Lowland Rainforest of Subtropical Australia as occurring along the access road in the identified logging area. The road had been constructed through a 12.5ha stand of rainforest mapped in the NSW 1998 Comprehensive Regional Assessment (CRA), that extends across the boundary with the property to the south.

Further enquires made it apparent that the area identified by Dr. Kooyman, along with other areas, had been mapped as rainforest in the CRA but had been remapped in May 2012 for the Property Vegetation Plan (PVP) as either part of the logging area or cleared land.

This was initially reported by NEFA to the EPA on the 30 September and they were asked to review the extent of rainforest in the logging area, the legality of the roadworks, and the remapping by the Office of Environment and Heritage (OEH) that they had supervised. NEFA are astounded that until then the EPA had often driven through this stand and not recognised their error in deleting the mapped rainforest, let alone that it is listed as the NSW Endangered Ecological Community (EEC) Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion and the Federal listed Critically Endangered Lowland Rainforest of Subtropical Australia. It beggars belief that they also could not recognise the NSW listed Vulnerable Red Bopple Nut and Arrow-head vines next to the track and readily visible through their car windows.

The role of the Forestry Corporation (FC) and the EPA in putting this area forward for remapping, and the role of the Office of Environment and Heritage in deleting valid rainforest, have to be seriously investigated. They must have known it was rainforest and an EEC, and should have seen the threatened species within it.

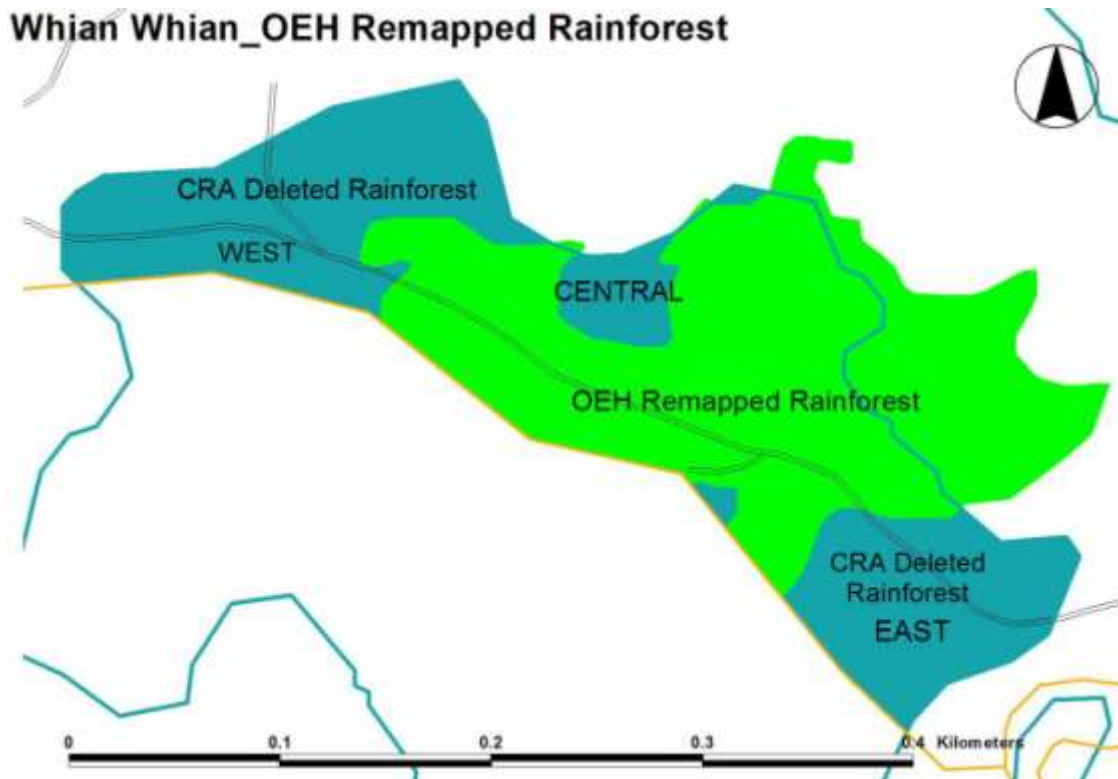
As part of the CRA process rainforest was mapped (CRAFTI mapping) by API using 1:25,000 colour aerial photographs. This map layer is taken to be rainforest for Property Vegetation Plans (PVPs) except where disputed by property owners. If the landowner is not happy with the CRA rainforest mapping on their property, the landholder can:

apply to DECC for an evaluation of the area proposed for private native forest for new rainforest mapping and determination of rainforest. The landholder will need to identify the area in dispute and provide evidence to DECC officers that the area is not rainforest. Evidence could include photographic and logging records, or other disturbance history.

In May 2012 as part of the preparation of the PVP, the OEH, at the request of the EPA, reviewed the rainforest mapping. In this process they redrew the rainforest boundary. The 4.9 hectares of rainforest mapped on the property in the stand along the road, was remapped as 3.3ha by OEH, with 2.5 ha deleted and 0.9ha added by an extension of the boundary to the north. The deleted rainforest was reassigned either to the loggable area or as cleared land. The FC constructed the main access road through this stand of rainforest for 520m, with this reducing to 250m with the remapping. This road is newly constructed through the deleted rainforest.

The EPA misled NEFA by firstly stating that the remapping was in late 2012 and then by telling us there was no field inspection. NEFA sought documents relating to the rainforest remapping under the Government Information (Public Access) Act, though, so far both EPA and OEH have refused to

provide them to us (see Section 1). Never-the-less the listed documents show that the remapping was in May 2012 and that this involved a field inspection.



MAP: OEH remapping of the CRA mapped rainforest resulted in the deletion of a western, central and eastern patches. Note that most of the stand occurs on the adjacent property (outlined in blue).

A preliminary walk of the road and brief inspection was undertaken for NEFA's previous audit. It was visually apparent that the area was rainforest, albeit mostly old regrowth with some heavily disturbed patches. NEFA concluded:

From our preliminary assessment it was considered that most, if not all, of the deleted rainforest should have been retained as rainforest. Despite the evident disturbance, a significant proportion of this rainforest would qualify as an Endangered Ecological Community at both the State and Federal level.

Further inspections have confirmed that there are three patches of CRA mapped rainforest, that are visually, structurally and floristically rainforest, that were deleted by OEH at the behest of the EPA and FC. For discussion these have been described as a western, central and eastern patch, as shown on the above map. The following photographs have been taken within each of the deleted patches and clearly illustrate the presence of rainforest within the deleted areas. The pictures also illustrate why this rainforest qualifies as an Endangered Ecological Community.

In deleting these rainforest patches the Government agencies removed all protection from them and their inhabitants, reallocating the western and central stands for logging and the eastern stand as cleared land.



ABOVE Western patch of rainforest reclassified by OEH as part of the “TPA harvest area” (net logging area).

NEFA Whian Whian Audit



ABOVE: Central patch of rainforest reclassified by OEH as part of the "TPA harvest area" (net logging area)



ABOVE: Eastern patch of rainforest reclassified by OEH as “cleared”. Note the Red Bopple Nut (top right) and the dominant Red Cedars (bottom).

From our initial inspection it was also apparent that some of the most heavily disturbed parts of the stand had been retained as rainforest. When looked at on aerial photographs, the remapping undertaken by OEH did not make sense, with boundary lines drawn through the centre of stands of rainforest with the same characteristics. NEFA does not believe that any systematic process has been applied to map the rainforest in accordance with the PNF Code and find it unbelievable that an OEH expert could delete such obvious rainforest while retaining such heavily degraded areas.



Part of a large open area dominated by lantana retained as rainforest by OEH, other areas dominated by weeds (including Camphor Laurel) and wattles appear to have been added as rainforest. The EPA's primary justification for the remapping is that while some mapped rainforest was deleted more was added, giving a nett increase in mapped rainforest across the property. The quality of the rainforest appears irrelevant.

The Private Native Forestry Code of Practice Guideline No. 3, Protocol for re-evaluating rainforest on private property, states

The definition used in the Code of Practice for Private Native Forestry is:

'Rainforest is tree-dominated vegetation where the tree stratum (over 3 metres in height) which has the greatest crown cover has rainforest species making up 50% or more of the crown cover, except where non rainforest emergent species (including brushbox and turpentine) occur and exceed 30% or more of the upper stratum crown cover.

Rainforest includes all areas of rainforest mappable at a 1:25000 scale. Rainforest also includes areas exceeding 0.5 hectares occurring as isolated clumps or lineal strips of rainforest trees.

The protocol states:

... re-evaluation of disputed areas will be undertaken by a DECC API specialist using the most recent aerial photography to map the actual extent of rainforest on the property. If field work is required for further validation, the steps in the next section will be followed. If field work is not required, the revised mapping will be taken as the new rainforest map.

...

Step 1

The API assessing officer will review recent aerial photography and reassess the presence and extent of rainforests on recent photos using the CRA criteria. Reassessment will not occur on nonloggable areas, for example, slopes greater than 30 degrees, old-growth forests and non commercial areas. New boundaries delineating rainforest areas will be produced based on the CRA criteria.

Step 2

Field transects will be designed and undertaken to verify the boundary of the rainforest. The field assessing officer will select a location for the transect based on areas from the most recent aerial photos to verify the presence and boundary of the rainforest areas.

Not only did OEH remap rainforest within the PVP area, they also remapped “nonloggable” and “non-commercial” areas well outside the PVP area. Conveniently, for the FC, remapping the eastern patch, through which the FC wanted to construct their access road, as cleared land. OEH refuse to let us see their remapping records so we do not know if they undertook transects or how they managed to use their field work to justify their erroneous mapping.

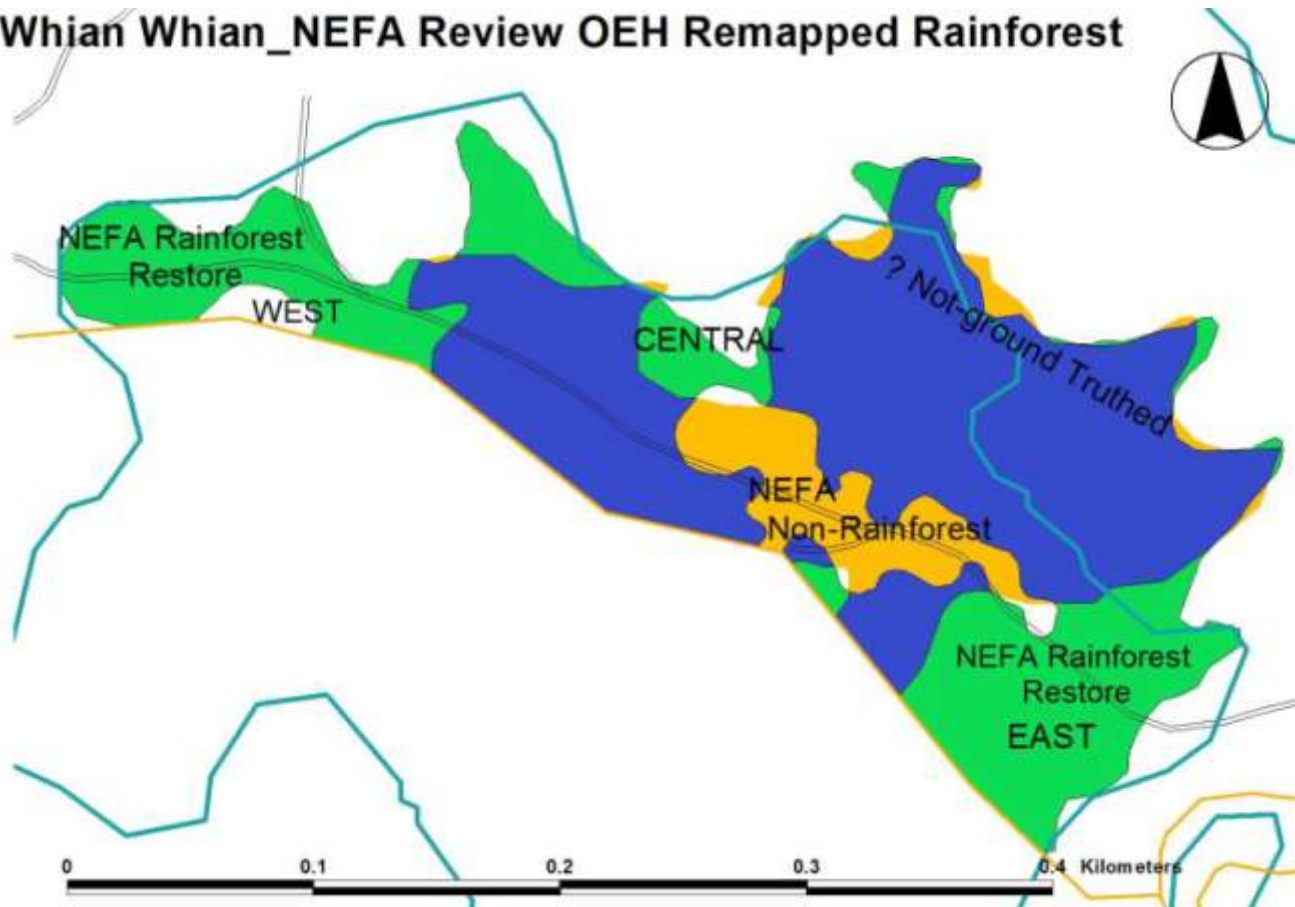
NEFA is particularly concerned as this removes any protection for the numerous vulnerable Arrow-head Vines and mature Red Bopple Nuts identified as occurring within rainforest now classed as “cleared” in the eastern patch. We are also concerned for the ramifications for the Arrow-head Vines and Red Bopple Nuts in the western patch which have been added to the logging area.

NEFA engaged an API expert and botanist to remap the rainforest in the vicinity of the access road using Aerial Photographic Interpretation (API). This was done by applying the definition in the PNF Code and the methodology specified in the “Identification of Rainforest, Field Guide” (NRM Field Assessment Guidelines: Rainforest Identification).

The deleted patches were the focus of assessments. The three deleted patches are all components of a larger stand, though for the purpose of this exercise were taken as discrete patches; west, centre and east. Areas were initially mapped on the basis that rainforest species clearly made up more than 50% of the crown cover of all tree strata, and thus in accordance with the Field Guide are clearly rainforest. Because EPA would not admit that there are any problems with their remapping, in accordance with the Field Guide NEFA undertook transects to determine crown separation ratio

and crown cover %. These were only undertaken in the east and west patches because the dense canopy cover of the centre patch made this clearly unnecessary.

Whian Whian_NEFA Review OEH Remapped Rainforest



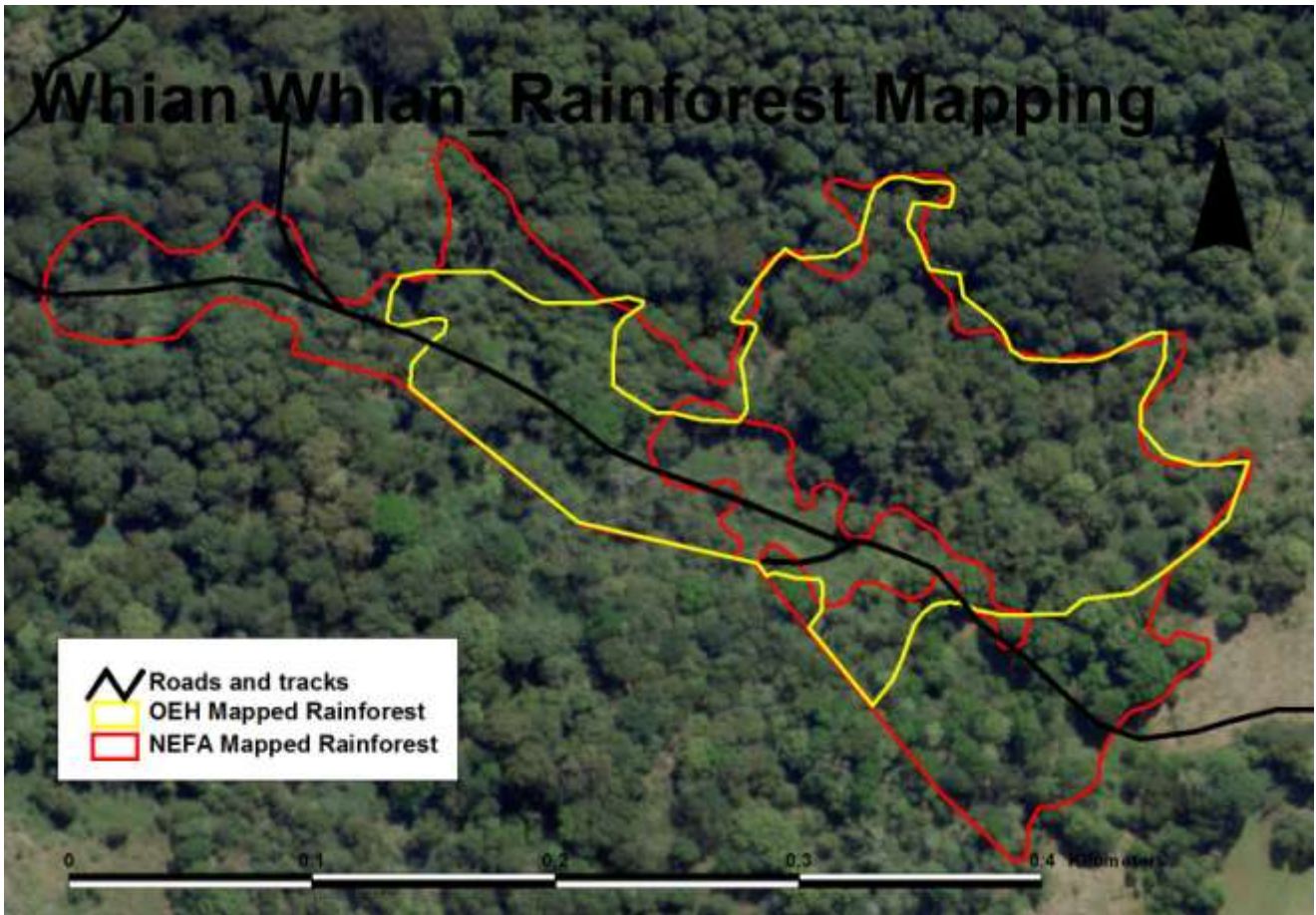
NEFA applied the PNF Code criteria to remap the rainforest in the vicinity of the road, identifying patches we believe should be restored (green) as rainforest and a core area of OEH rainforest NEFA considers does not meet the criteria (orange) and is non-rainforest. This remapping is only indicative.

For the east patch a “zig zag transect” (Field Guide 3.2) sampling 12 trees was undertaken. All species on the transect were rainforest species, with 5 *Toona ciliata*, 3 *Grevillea robusta*, 1 *Alphitonia excelsa*, 1 *Elaeocarpus grandis*, 1 *Ficus coronata* and 1 *Acmena ingens*. Tree height varied from 20-30m, with an average of 27m. The mean crown gap is 0.14m and the mean crown width is 8.58m, giving a Crown Separation Ratio for this transect of 0.02. The Crown Cover is thus 78% for this transect.

For the west patch the transect was divided into two sections each side of the road, with “zig zag transects” (Field Guide 3.2) sampling 8 and 9 trees respectively. These were combined into one data set for analysis. All species on the transect were rainforest species, with 3 *Alphitonia excelsa*, 3 *Guioa semiglauca*, 2 *Diploglotis australis*, 2 *Polyscias murrayi*, 2 *Bridelia excelata*, 1 *Polyscias elegans*, 1 *Endriana pubens*, 1 *Ficus coronata*, 1 *Cryptocarya glaucens* and 1 *Archontophoenix cunninghamiana*. Tree height varied from 15-28m, with an average of 21m. The mean crown gap is -1.53m and the mean crown width is 7.59m, giving a Crown Separation Ratio for this transect of -0.20. The Crown Cover is thus 126% for this transect.

All three patches, as remapped, are without doubt rainforest and were deleted without justification by OEH. When they remapped this area OEH had state of the art ADS40 digital imagery and a 3D screen available to them. It is unbelievable that any assessment in accordance with the rules could

result in such erroneous remapping, particularly as their delineation of the boundaries of mapping polygons and retention of heavily degraded patches does not make sense.



Mapping by OEH and NEFA overlaid on aerial photo, note the eastern patch classed as “cleared” by OEH and the lantana dominated area classed as non-rainforest by NEFA.

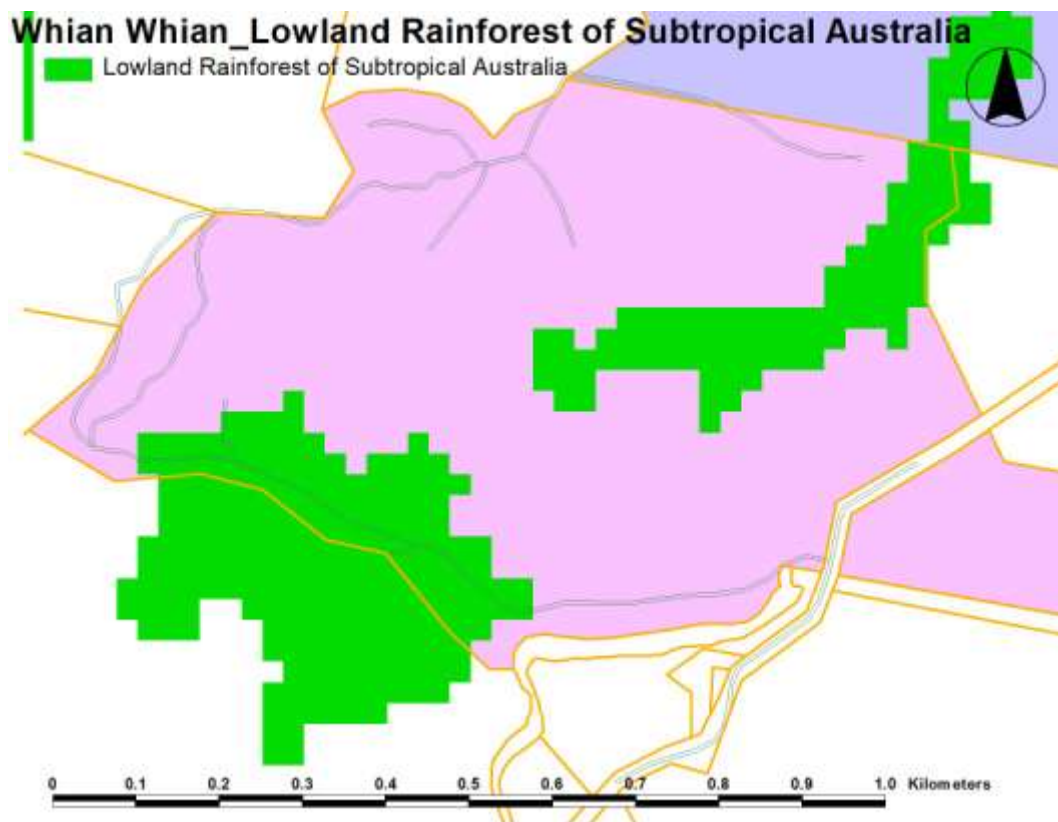
As this rainforest occurs on basalt and because of its species composition (ie see Appendix 2) it clearly represents the Endangered Ecological Community (EEC) Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion under the NSW Threatened Species Conservation Act. This EEC will be more extensive than mapped by NEFA, given the description includes:

eucalypt emergents (e.g. Eucalyptus grandis, E. saligna) may occasionally be present. In disturbed stands of this community the canopy continuity may be broken, or the canopy may be smothered by exotic vines.

Given the allowance for non-rainforest species and heavily disturbed areas, it is expected that the full extent of the CRA mapped rainforest would qualify as Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion, and that this would extend into surrounding vegetation.

The rainforest also qualifies under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as the Critically Endangered Lowland Rainforest of Subtropical Australia. There have been two mapping exercises to identify likely Lowland Rainforest of Subtropical Australia: Flint, C. and Cerese, B. (2010. *Mapping Lowland Rainforest of Subtropical Australia*, Big Scrub Landcare Group) and ERIN (2011, Lowland Rainforest of Subtropical Australia Threatened Ecological Community, Environmental Resources Information Network). This mapping is readily available and any professional body would consider it if undertaking remapping of identified stands,

at least to ensure particular care was undertaken before deleting any. The mapping by Flint and Cerese clearly identifies the rainforest on this property as Lowland Rainforest of Subtropical Australia. FC, EPA and OEH have no excuse for ignoring this evidence.



Mapped Lowland Rainforest of Subtropical Australia (from Flint and Cerese 2010)

The EPA website states:

An approval under the [Native Vegetation Act 2003](#) does not remove the obligation of landholders to obtain approval under the Commonwealth [Environment Protection and Biodiversity Conservation Act 1999](#) (EPBC Act), where necessary. 'Actions' that are likely to have a significant impact on a matter of national environmental significance, such as ... nationally listed threatened species and ecological communities, ... require approval under the EPBC Act. If a person proposing to take an action believes that it might have a significant impact on a matter of national environmental significance, they must refer the proposal to the Commonwealth [Department of Environment](#) to determine if an approval is required.

Apparently neither the FC nor EPA referred their remapping or roading to the Commonwealth.

During NEFA's assessment it was considered whether the deleted rainforest qualifies as Lowland Rainforest of Subtropical Australia. The deleted areas were considered in accordance with the criteria specified in the Listing Advice (pp6,7):

Advice to the Minister for Sustainability, Environment, Water, Population and Communities from the Threatened Species Scientific Committee (the Committee) on an Amendment to the List of Threatened Ecological Communities under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

The patches, when taken into account with contiguous rainforest, were, in part, considered to meet the key diagnostic characteristics and condition thresholds for a non-remnant patch that has recovered through natural regeneration. The key diagnostic characteristics of the listed ecological community are:

- Distribution of the ecological community is primarily in the NSW North Coast and South Eastern Queensland bioregions, according to Interim Biogeographic Regionalisation for Australia (IBRA) version 6.1 (2004).
- The ecological community occurs on: soils derived from basalt or alluvium; or enriched rhyolitic soils; or basaltically enriched metasediments.
- The ecological community generally occurs at an altitude less than 300 m above sea level.
- The ecological community typically occurs in areas with high annual rainfall (>1300mm).
- The ecological community is typically more than 2 km inland from the coast.
- The structure of the ecological community is typically a tall (20 m–30 m) closed forest, often with multiple canopy layers.
- Patches of the ecological community typically have high species richness (at least 30 woody species from Appendix A).

It was recognised that some of the most disturbed areas qualifying as rainforest may not qualify as Lowland Rainforest of Subtropical Australia because of the poor canopy cover. No attempt was made to map qualifying areas, though our transects with 126% and 78% Crown Cover clearly satisfy the requirement that “Emergent/canopy/subcanopy cover is $\geq 70\%$ ”, and indicate that significant areas ≥ 2 ha qualify under this criteria (particularly as Brush Box is a diagnostic species and non-native species such as Camphor Laurel can be included).

Patches of Lowland Rainforest of Subtropical Australia typically have high species richness. Another criteria for identification of this Critically Endangered community is that patches have at least 30 characteristic woody species from Appendix A of the Listing Advice. A brief assessment of the three patches of rainforest deleted by OEH and EPA identified a total of 58 characteristic species, and found each deleted patch had over 30 such species (Appendix 2).

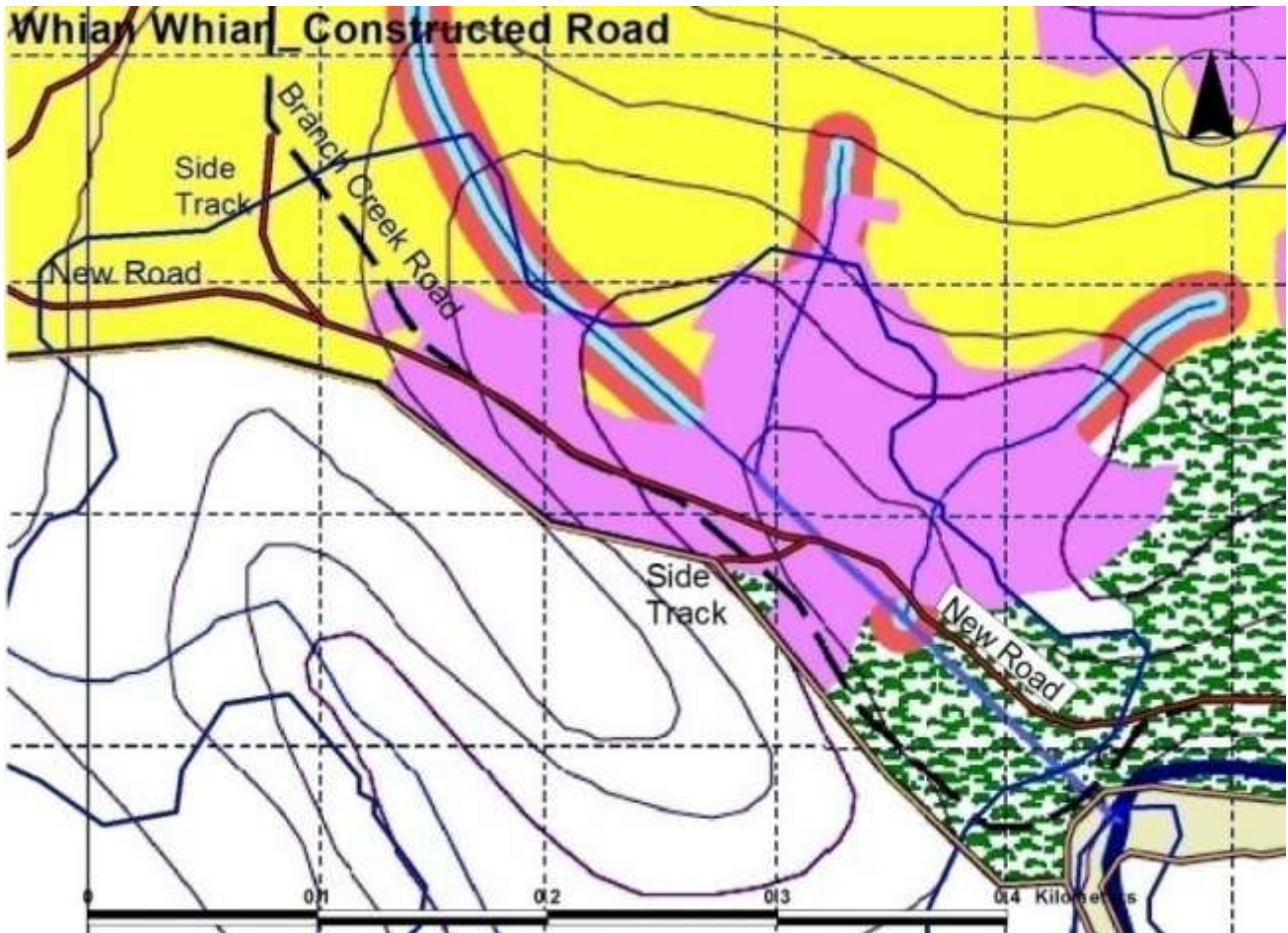
The remaining criteria that “ $\geq 50\%$ of vegetation is native” was not specifically assessed (ie by 20x50m sampling plots), though there is no doubt that the areas sampled by our transects meet this requirement and that most of our mapped rainforest also does.

It is apparent that a significant proportion of the identified rainforest, including in the deleted east, central and west patches do qualify as the Critically Endangered Lowland Rainforest of Subtropical Australia in accordance with the Federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This listing also encompasses a 50m buffer.

It is thus apparent that the FC access road was constructed, under the supervision of three NSW Government agencies, through rainforest qualifying as the NSW Endangered Ecological Community Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion and the Federally Critically Endangered Lowland Rainforest of Subtropical Australia. More than 92% of this community has been cleared since European occupation of the Australian continent and NSW Government agencies seem intent on continuing to clear it. While the agencies may be able to delete rainforest they can not remove the fact that it is an endangered ecological community and remain bound by the requirements for management of this, particularly outside the PVP area.

The FC constructed their major access road through this rainforest for half a kilometre. There are conflicting claims whether this road was an existing road that was just “being maintained” or a new road. Anecdotal advice from neighbours is that it didn’t exist before. There was no apparent

evidence that it was a pre-existing road and it could not be seen on the aerial photos checked. The Harvesting Plan shows a Branch Creek road in this vicinity, though the new road deviates significantly from the mapped road, particularly in the deleted rainforest areas. The claim that it was just maintenance of an existing track is also not supported by the physical evidence: extensive fresh earthworks, trees and fences bulldozed out of the ground; and two apparently “exploratory” side tracks. It is apparent that the road is partially, if not fully, a new road, and that the works undertaken could not constitute “maintenance” of an existing road.



MAP: Note “Branch Creek Road” as originally mapped by the FC on their operational plan (dashed black line) as compared to the constructed new road, also note the two “exploratory” side tracks. CRA mapped rainforest is outlined in blue.

The Approved Conservation Advice for the Lowland Rainforest of Subtropical Australia identifies private native forestry as a threat that is “further adding to isolation and fragmentation of Lowland Rainforest remnants”, and gives a variety of Priority Actions including:

- *Protect and conserve remaining areas of the ecological community. Further clearance and fragmentation of this critically endangered ecological community should be avoided.*
- ...
- *Develop and implement best practice standards for management of the ecological community on private and public lands.*
- *Liaise with local councils and state authorities to ensure new developments, road widening, maintenance activities, or other activities involving substrate or vegetation disturbance in areas where the ecological community occurs, do not adversely impact the ecological community.*

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- *Liaise with planning authorities to ensure that planning takes the protection of the ecological community into account, with due regard to principles for long-term conservation.*
- *Include buffer zones between the ecological community and development zones and areas undergoing pasture development or cultivation.*



Debris from road construction is comprised of trees bulldozed out of the ground. The limited amount suggests that part of the track may either have been on an existing route or that the route was mostly comprised of lantana. BOTTOM: Debris from road through the east patch (530390 6834344) indicate significant clearing; the larger trees here were 2 Camphor Laurels, 1 Red Ash, 1 Guoia, and 1 native laurel spp.,.



Debris from road works in the retained mapped rainforest. LEFT: Note the fence posts pushed out of the way for the road.

Direct harm to the EEC is evidenced by the road clearing, trees pushed out of the ground, significant damage to buttresses of two large Red Cedars and damage to a vulnerable plant (see Red Bopple Nut). Long term harm will be caused by the fragmentation of the stand by the road, changed microclimate for tens of metres each side of the road, proliferation of weeds along its margins, and use of the road by introduced predators (dogs, foxes and cats). The changes to microclimate will cause long-term changes in flora and fauna species composition well into the regenerating rainforest and significant disruptions to fauna movements and changes in behaviour. The roading, so close to the creek, in the eastern stand is expected to also cause significant long term stream damage. The remapping of patches as cleared or their inclusion in the loggable area will also have long-term consequences.

Apparently only the deleted western and central stands of rainforest are within the Property Vegetation Plan area, with the eastern stand outside the PVP area despite being remapped. NEFA can not understand why areas outside the PVP area were remapped considering that the 'Private Native Forestry Code of Practice Guideline No. 3, Protocol for re-evaluating rainforest on private property' states "*Reassessment will not occur on nonloggable areas, for example, ... non commercial areas*". It is particularly concerning that, in an effort to remove all protection, the eastern stand has been remapped as "cleared".

The PNF Code states:

4.1 Protection of landscape features of environmental and cultural significance

(3) Rainforest will be identified according to the protocol approved by the Minister for Climate Change, Environment and Water available at www.environment.nsw.gov.au/pnf.

Not only have OEH remapped rainforest outside the ambit of the protocol, but as evidenced by the above review, the OEH have not complied with the criteria for mapping rainforest specified in the protocol.

The PNF code states:

4.1 Protection of landscape features of environmental and cultural significance

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(1) Forest operations in and adjacent to specified landscape features must comply with the requirements in Table C.



At two places within the rainforest bulldozer tracks headed off the main track, presumably the bulldozer was “going for a walk” to find a route for the road. See “side tracks” on map. TOP: (530312 6834390) extends for some 40m to south of road. BOTTOM (530098 6834490) extends for some 90m to north of road



The road through the western patch created a distinct gap and resulted in significant damage to the buttress of this Red Cedar (left of road), along with another.

Table C: Requirements for protecting landscape features

Landscape feature	Operational conditions
Endangered ecological communities listed in the <i>Threatened Species Conservation Act 1995</i> at the date the private native forestry PVP is approved by the Minister	Forest operations may only occur in endangered ecological communities as part of an approved Ecological Harvesting Plan approved by the Director General of the Department of Environment and Climate Change, except that existing roads may be maintained.
Rainforest	Forest operations must not occur within rainforest, except that existing roads may be maintained.

It is apparent that as the roading constitutes a forestry operation, and as there was no approved *Ecological Harvesting Plan*, that the roading within the PVP area was in contravention of the requirements for protecting landscape features given in Table C of the Private Native Forestry Code of Practice for Northern NSW. Please recognise that, as noted above, mapping of the Endangered Ecological Community (EEC) Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion in accordance with the Scientific Committee’s determination is likely to result in a significantly larger area being included than in NEFA’s remapping, most notably beyond the boundaries of the CRA mapped rainforest to the west in the vicinity of the road.

The PNF Code states:

5.1 Construction and maintenance of roads

(5) Trees and other debris must not be stacked in landscape features referred to in Table C or riparian exclusion zones or riparian buffer zones referred to in Table F.

As shown above, the FC have stacked trees and other debris in rainforest and the Lowland Rainforest EEC.

Outside the PVP area the Forestry Corporation may consider that it is no longer required to protect the rainforest re-categorised as “cleared”. Though this is certainly not true when it comes to Endangered Ecological Communities (EECs). The Forestry Corporation can not claim ignorance about EECs as their intrusions into these has been a controversial issue for a long time. It is clear that Forests NSW have breached Clause 118D of the National Parks and Wildlife Act in that they did by act and omission harm and pick the Endangered Ecological Community (EEC) Lowland Rainforest in NSW North Coast and Sydney Basin Bioregion. The National Parks and Wildlife Act 1974 states:

118D Damage to habitat of threatened species, endangered populations or endangered ecological communities

- (1) A person must not, by an act or an omission, do anything that causes damage to any habitat (other than a critical habitat) of a threatened species, an endangered population or an endangered ecological community if the person knows that the land concerned is habitat of that kind.

The Forestry Corporation should also be well acquainted with Lowland Rainforest of Subtropical Australia and well aware that it needs to be protected. Their actions in having this rainforest remapped, exploring it with a bulldozer and constructing a road through it has had a significant impact that will continue into the foreseeable future. The Environment Protection and Biodiversity Conservation Act 1999 states:

Subdivision C—Listed threatened species and communities

18 Actions with significant impact on listed threatened species or endangered community prohibited without approval

Critically endangered communities

- (5) A person must not take an action that:
- (a) has or will have a significant impact on a listed threatened ecological community included in the critically endangered category; or
 - (b) is likely to have a significant impact on a listed threatened ecological community included in the critically endangered category.

18A Offences relating to threatened species etc.

- (1) A person is guilty of an offence if:
- (a) the person takes an action; and
 - (b) the action results or will result in a significant impact on:
 - (i) a species; or
 - (ii) an ecological community; and
 - (c) the species is a listed threatened species, or the community is a listed threatened ecological community.

Given that it was the action in deleting mapped rainforest undertaken by the OEH that allowed the FC to construct their road through the critically endangered Lowland Rainforest of Subtropical Australia then they must also be held accountable (EPBC S427E). OEH can not claim ignorance about what constitutes an endangered ecological community under the EPBC Act, nor that by reclassifying rainforest as cleared land that this would not have a significant impact on Lowland Rainforest of Subtropical Australia.

Given that the EPA requested this rainforest remapping and drove through these patches of rainforest on numerous occasions when reviewing, approving and auditing the Forest Operation Plan, it is similarly unbelievable that they did not recognise that these patches had been wrongly deleted until identified by Dr. Kooyman on 29 September. Even then, while they had their “expert” map the EEC they refused to admit to us that the rainforest had been wrongly remapped. Their oft repeated response is that the remapping deleted some areas of mapped rainforest and added others, so there is a net increase. Their presumption is that this is acceptable and a good outcome.

This is the only time NEFA has reviewed OEH’s rainforest remapping. If this represents standard procedure then it suggests that stands of rainforest, including State and Federally listed endangered communities, are been regularly miss-mapped by OEH. If the EPA continue to refuse to admit there is a problem, and review OEH’s remapping of rainforest and oldgrowth to make sure that procedures are improved, then we can expect to lose yet more of our rainforest because of either intent or incompetence.

A 2010 internal review of DECCW (now OEH) Old Growth and Rainforest Private Native Forestry assessment protocols found that *“the protocol implementation is working very well for rainforest”*, but that implementation for *“old-growth is highly variable and problematic and has apparently resulted in some areas of old-growth being potentially available for harvest”*. Transect assessments resulted in PNF old-growth classification in 4 out of 5 areas that were not identified by DECCW assessments as being old-growth. 80% of the time OEH were getting it wrong. The review hoped that improved imagery and hardware, combined with fieldwork, and regular peer review would increase the accuracy and reliability of DECCWs remapping.

In November 2012 NEFA attended a field day organised by EPA aimed at showcasing how OEH had improved their oldgrowth field assessments, though it revealed a fundamentally flawed field assessment process that was strongly criticised by all stakeholders. This example proves that OEH have not rectified the manifest deficiencies in their remapping, and that to the contrary, even with state of the art imagery and equipment their rainforest remapping is also fundamentally flawed.

The recommended field work and peer review is urgently needed but must be undertaken independently of both EPA and OEH.

5. Nightcap National Park

There is a discrepancy between the mapped boundary of the Nightcap National Park, and nearby private properties, with the boundary as marked on the ground. This was first identified by forest protectors while logging was underway, when the concern was that the FC were logging in the national park.

The park boundary was marked on the ground by the Forestry Corporation by extrapolation from old fence posts and blazed trees (it is not known if survey pegs were also located in this vicinity). In general logging and roading was kept within this marked boundary, with tree heads only crossing the marked boundary of the National Park at three identified locations. Two of these were minor, with the top branches of one tree on the old trail cut off. The third was more significant and the tree head was left within the identified park.



National Park boundary incursions LEFT (530676 6834934) The tree on the right is marked as the park boundary with a tree head extending into the park left of this. RIGHT (530817 6834906) Note that the top of this tree extends to the centre of a watercourse which aerial photos show as being well within the park)

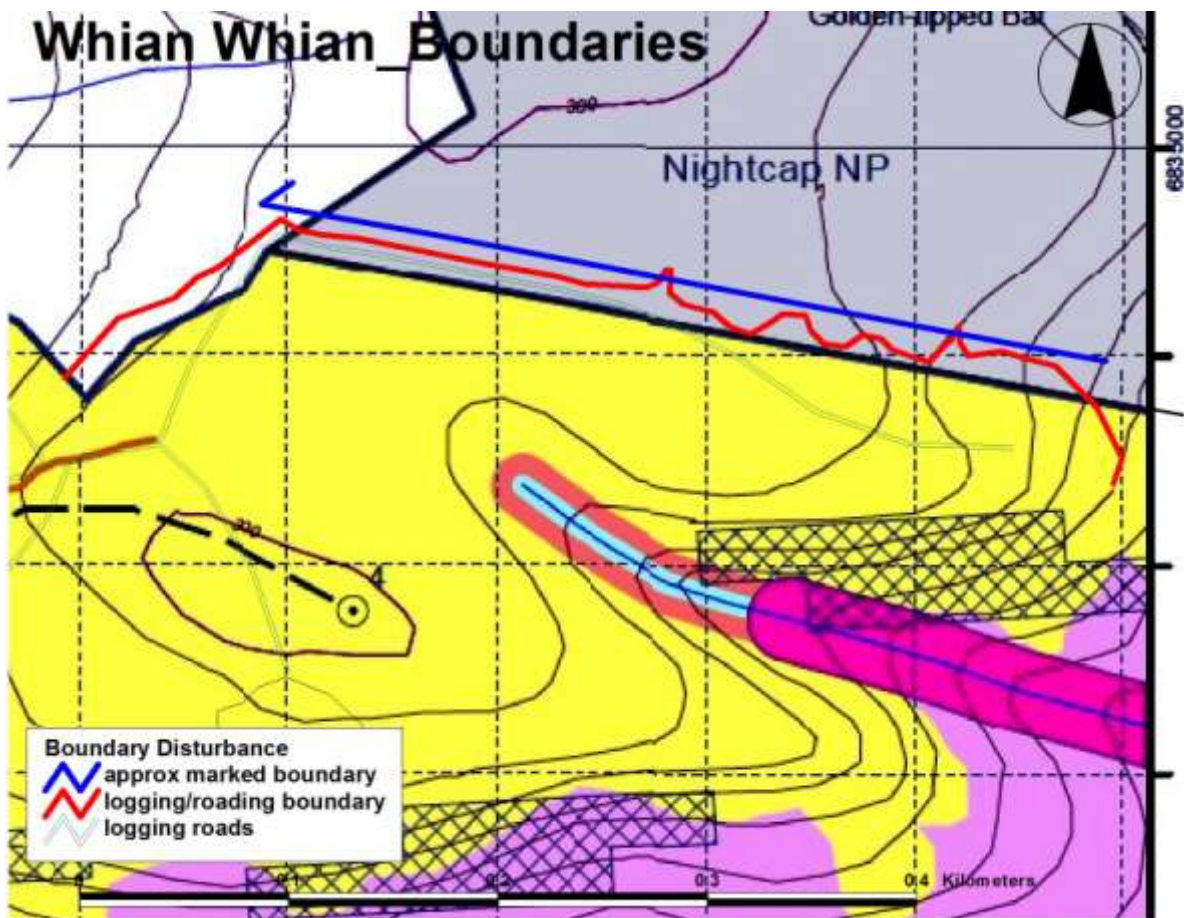
However mapping of various features using a GIS indicated that there was extensive disturbance within the Nightcap National Park as mapped. As it is recognised that identification of locations using a GPS can be of limited accuracy, this was checked in the field on a number of occasions, using different GPSs and various cadastre. The GPS localities were also downloaded into a GIS and compared with NSW Government mapping of the national park boundary. These consistently show significant incursions into the national park, with a mapped area of around half a hectare of the park significantly affected by roading and logging over a boundary length of some 400m.

The basic discrepancy is that the boundary of the Nightcap National Park as marked on the ground by Forestry Corporation is some 20m north of the mapped boundary. Similar boundary discrepancies were found with private properties to the west, and with the property to the south. The question is whether the surveyed boundary (as marked from blazed trees and old fence posts) or the mapped boundary (as shown on cadastre) is likely to be the wrong. This was not able to be

resolved by NEFA, so it has been assumed that it is most likely that the boundary marked on the ground is the more reliable.



Corner of the Nightcap National Park. LEFT as identified by FC, RIGHT (centre of photo – to right of stump) as identified by GPS and on Government maps.



MAP: Mapped national park (grey) and PVP logging area (yellow) compared to extent of logging operation (red line) as determined on the ground. Note logging outside PVP area and theoretically in the park.

Given that the Forestry Corporation widely used GPSs in its logging operation they must have been aware of this discrepancy and decided to rely on the surveyed boundary even though it is clearly outside their mapped PVP area. The EPA should also have become aware of this during their audits.

Forestry Corporation constructed a track within the mapped Nightcap National Park for some 200 metres and undertook logging within the mapped park along an additional 200m section. This logging was intensive and seems to have intentionally maximised destruction in a band within and adjacent to the mapped park, with the logging debris left piled against native vegetation within the park. Three threatened plants were found affected within this area (see Slender Marsdenia and Red Bopple Nut) and others were likely to have been buried under the debris. A Koala high use tree was affected by the track and a nearby Tallowwood cut down. When burnt the debris left along the National Park boundary will create a hot burn that will not be able to be controlled from spreading through the park and the threatened species.

Whether it is in the park or not, this logging was outside the mapped PVP area and within the mapped national park, it is therefore not covered by the PVP or the PNF Code. If outside the actual park this clearing is a breach of the Native Vegetation Act, if inside it is a breach of the National Parks and Wildlife Act.

The Native Vegetation Act 2003 defines clearing as “cutting down, felling, thinning, logging or removing native vegetation”. The Act states:

Division 1 – Control of clearing

12 Clearing requiring approval

- (1) Native vegetation must not be cleared except in accordance with:
 - (a) a development consent granted in accordance with this Act, or
 - (b) a property vegetation plan.
- (2) A person who carries out or authorises the carrying out of clearing in contravention of this section is guilty of an offence and is liable to the maximum penalty provided for under section 126 of the EPA Act for a contravention of that Act.

The Forestry Corporation can not now claim that this clearing was done for routine agricultural management activities (in accordance with Section 22) as their purpose was for logging, not, for example, for the purpose of boundary fencing.

Assuming it was not actually in the National Park, then the roading and logging within the mapped Nightcap National Park was outside the PVP area and thus is an offence under clause 12 of the Native Vegetation Act 2003. Note that logging also extended into a number of other areas outside the PVP that are mapped as being on adjacent properties.

During this audit we found a Koala high use tree with 33 scats beneath it (530725 6835134). This Tallowwood was also marked as being on the boundary of the Nightcap National Park, and thus outside the mapped PVP area. The logging track extended to within 8m of it, with closer debris. Another Koala high use tree on the marked boundary with an adjoining private property that we reported to the Forestry Corporation was apparently initially ignored on the basis it was outside the mapped PVP area.

This logging within the mapped park involved the intentional felling of at least one Tallowwood (a potential Koala feed tree), the construction of a track near a Koala high use tree, the felling of trees near two endangered Slender Marsdenia and one vulnerable Red Bopple Nut (and the likely killing of others), the deposition of huge volumes of debris in an unmapped drainage line, and the loss of habitat for a variety of threatened animals (ie Albert's Lyrebird, Marbled Frogmouth and Golden-tipped Bat). Without a PVP none of this is condoned.

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Logging and roading within the mapped National Park and thus outside the PVP area, the national park as marked by FC is to the left in all the above photos. Note that the felled tree (bottom left) is a Tallowwood and thus a Koala feed tree.

6. Log Landing

The principal log dump (530502 6834720) appears to have been intentionally cleared well in excess of what was required. The area of the log dump as mapped with a GPS is 0.23 hectares. It was measured as being 45m by 85m across its axes, giving an area 0.38 hectares. The averaged area of the log dump is thus 0.3 hectares. The surrounding area intensively disturbed is bigger than this, suggesting the total clearing (with a few retained trees) may be up to 1 hectare. Neighbours suggest the log dump was intentionally made larger than needed, and later expanded by bulldozing over numerous trees when logging was almost complete. It has also been situated on the escarpment with views over the valley, rather than on top of the ridge as indicated on the harvesting plan.



An excessively large log dump was constructed on what some locals consider to be an intended building-site.

A marked H tree (530496 6834710) and marked R tree (530533 6834722) (along with a number of other trees) on the periphery of the log dump were identified as being bulldozed out of the ground. Local residents and others who inspected the area on the 27 of September (when the dump had

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been in use for two weeks) maintain that the H tree was definitely not felled at that time, this claim is supported by a photo taken on that day.



Marked H and R trees on periphery of log dump apparently pushed over late in the operations. The crowns of both trees were sound, indicating they could not be claimed to be a safety risk, though the whole trees were simply left where they fell. Note the tape (put up to deter protestors) under the R tree, indicating when the tree was felled. (H tree 530495 6834710, R tree 530533 6834722)



Before (TOP 27 September) and After (BOTTOM Post October). These photos approximate the same area of the log dump before and after many trees were pushed over. The large tree on the right of the top photo is the H tree that was bulldozed out of the ground.

The bulldozing of the marked Hollow-bearing tree and Recruitment tree is a breach of the PNF Code:

4.3 Minimising damage to retained trees and native vegetation

(1) As far as practicable, forestry operations must not damage protected trees.

(2) Without detracting from subclause (1):

...

(b) machinery operations must not harm protected trees

Construction of such an unnecessarily large log dump (landing) is also in contravention of the PNF Code:

5.2 Log landings, portable mill sites and snig tracks

(2) Log landings and portable mill sites must be no larger than the minimum size necessary for efficient operations.

The original Forest Operation Plan showed this log dump as situated on the principal high point, which is standard practice to ensure uphill snigging to reduce erosion. The reason for moving it to the edge of the escarpment also needs to be explained (see map in Roding). This relocation is also in contravention of the PNF Code:

2.1 Forest Operation Plan

(5) A Forest Operation Plan must contain the following:

(a) A map (or maps) showing:

...

(v) the indicative location of log landings and portable mill sites

7. Roading

The main logging road was constructed through the critically endangered Lowland Subtropical Rainforest of Australia and through what should have been exclusion zones for Koala high use trees and threatened plants. Its original proposed route was significantly changed, with its route through the rainforest altered and its extension up onto the ridge through two neighbouring properties. When the neighbours withdrew the FCs Permission to Enter, the FC constructed their extraction track. Belated legal action by the FC ultimately had access restored, though by then the logging was almost over.

When NEFA found numerous threatened plants and Koala high use trees in the path of the marked route for a new road, they requested the EPA issue a Stop Work Order. Instead the EPA came up and supervised the marking of a new route. The extraction track was constructed in haste on a steep slope and through what should have been exclusion zones for Koala high use trees and a large number of threatened plants.





Failed cross-banks on extraction track.

Two cross banks have already failed, leaving water to run past both of them before being diverted. After some time these were recently repaired, though are obviously at risk of failing again. Given that the runoff from this track is diverted into habitat of numerous threatened plants runoff and erosion from this outrageous track needs to be properly and permanently controlled.

The PNF Code has a number of requirements for extraction tracks that it is not considered were complied with in construction of this track:

5.2.1 Snig tracks and extraction tracks

- (1) Snig track or extraction track construction must be minimised and, as far as practicable, walkover extraction must be used and slash retained on snig and extraction tracks.
- (2) Soil disturbance and exposure on snig and extraction tracks must be minimised.
- (6) Wherever practicable, snigging and timber extraction must be uphill.
- (8) Snig tracks and extraction tracks must not encroach on exclusion zones or riparian buffer zones except at designated crossings and where permitted by clause 4.4(2).
- (9) Blading-off of snig tracks and extraction tracks must not occur.
- (10) The grade of snig tracks must not exceed 25 degrees, except in the following circumstances:
 - (a) It will result in a better environmental outcome than construction and/or use of a side cut snig track to access the same area using a snig track of less than 25 degrees.
 - (b) The Forest Operation Plan is noted.
 - (c) The snig track can be effectively drained.
 - (d) The maximum grade is 28 degrees.
 - (e) The maximum combined length of the snig track exceeding 25 degrees, commencing from the serviced log landing, is not greater than 75 metres.

(14) Track drainage structures must be located, constructed and maintained to divert water onto a stable surface which can handle concentrated water flow, and which provides for efficient sediment trapping.

(15) Snig tracks and extraction tracks must be located and constructed to ensure that water running along the track surface does not flow for longer than the distances specified in Table H.

NEFA considers it does not comply with the following requirements for 5.2.1 Snig tracks and extraction tracks: (1) (2) and (9) because of excessive soil disturbance, (6) because of downhill extraction, (8) because of intentional encroachment on a number of exclusion zones, (10) because the extraction track exceeds 25 degrees and was unnecessary, (14) and (15) because of inadequate and failed drainage works.

This frequent relocation of roads and tracks is also in contravention of the PNF Code:

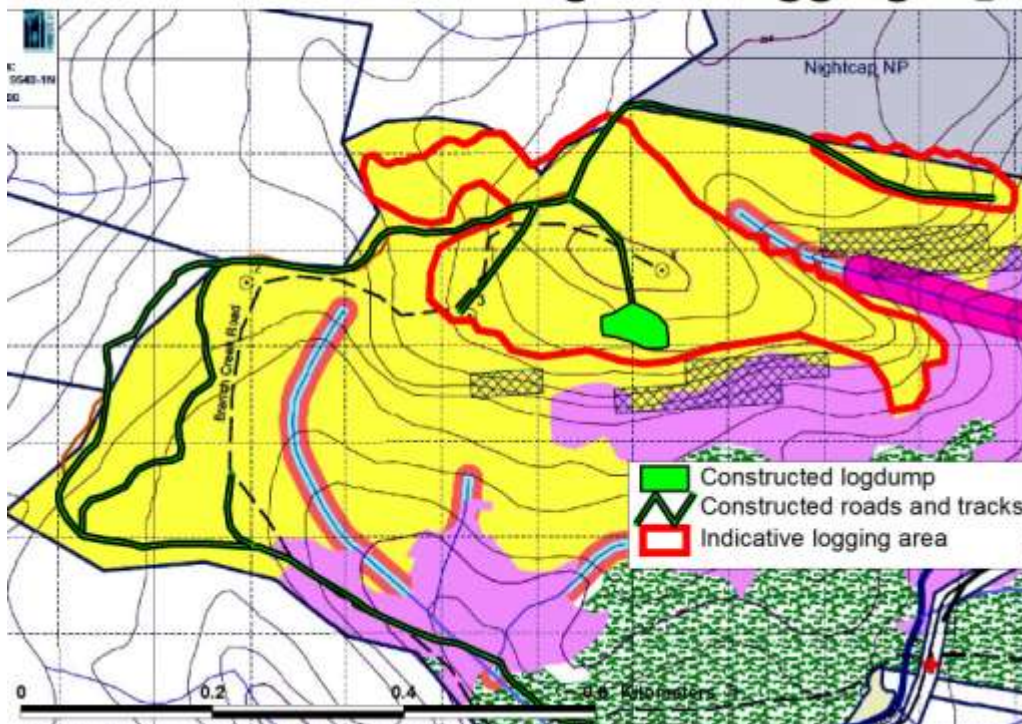
2.1 Forest Operation Plan

(5) A Forest Operation Plan must contain the following:

(a) A map (or maps) showing:

(iv) the indicative location of existing and proposed roads and drainage feature crossings

Whian Whian: Roading and Logging



MAP: Comparison of proposed logging area (yellow), proposed logging road (dashed line), and proposed log dumps (2,3 and 4) with the constructed log dump and roads and tracks (not all tracks have been mapped, and a second log dump was constructed in the cleared paddock (centre bottom)).

8. Streams

The PNF Code provides minimal and grossly inadequate protection for streams. It basically requires the establishment of 5m wide riparian exclusion zones on each side of mapped (ie on 1:25,000 topo. maps) streams within which forest operations are prohibited. Modified logging is allowed in 10-30m buffer zones adjoining these, with the width depending on the stream order. The PNF Code states:

4.4 Drainage feature protection

(1) Forest operations must not occur in riparian exclusion zones, ...

As noted for Alberts Lyrebird, logging debris was located up to the centre of one mapped first order stream and was quite extensive within the riparian exclusion zone, causing clearing of native vegetation, and thus was a breach of the PNF Code. The fact that four trees were felled into a claimed exclusion zone, with 2 reaching the centre of the drainage line, means it was intentional.

Within the eastern area of deleted rainforest a new road was constructed for over 100m parallel to the creek within a riparian buffer on a 2nd order stream, with fill from the road within 5 metres of the creek. Under the PNF Code the riparian buffer should have extended to 25m from the creek.



Principal access road constructed parallel to the creek within a riparian buffer on a 2nd order stream, with fill from the road within 5 metres of the creek. This would have been illegal had it not been excluded from the PVP area.

For riparian buffers the PNF code states:

4.4 Drainage feature protection

(12) New roads may be constructed and old roads re-opened within riparian exclusion zones, riparian buffer zones and machinery exclusion zones provided that:

- (a) the road is identified on the Forest Operation Plan
- (b) the road prism crosses the riparian zones at right angles or as close to right angles as is practicable
- (c) clearing and disturbance within the exclusion zone are minimised
- (d) any other necessary permits have been obtained.

This road was not identified on the Forest Operation Plan at the time it was constructed, did not cross the buffer at right angles, did not minimise disturbance and involved the clearing of rainforest trees. Aside from deleting the mapped rainforest in this vicinity, the FC excluded this area from the PVP and thus the requirements of the code. This roading parallel to a 2nd order stream would

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obviously have been in breach of the PVP Code had it been included in the PVP area. This is yet another example of the FC subverting the intent of the Code to avoid having to implement its minimal requirements to limit environmental harm.

Drainage lines are watercourses showing evidence of active erosion or deposition, and/or an incised channel. Unmapped drainage lines are those that meet these criteria but are not mapped on a 1:25,000 topographical map. There are a number of such streams within the PVP area. While 10m machinery exclusion zones are applied to unmapped drainage lines, the loggers can otherwise trash these streams at their will. The Forestry Corporation accordingly trashed unmapped streams because they can on private land. As there are threatened fish downstream they would not be allowed to do this if it was public land. This is wanton environmental vandalism.



Logging debris deliberately felled into “unmapped”, but clearly defined, intermittent streams which occur towards centre of photos under the mess (top 530366 6834723, bottom 530885 6834874). While this may be legal it is wanton vandalism and will significantly affect water quality and biota downstream.

Appendix 1 Milledge Report



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**RECORDS OF THREATENED FAUNA SPECIES IN AND ADJOINING LOT 2 DP599556,
WHIAN WHIAN ROAD, LISMORE LGA, NORTH EAST NEW SOUTH WALES
WITH COMMENTS ON POTENTIAL ADDITIONAL THREATENED SPECIES**

On 17 September 2013 at the request of the North East Forest Alliance (NEFA), I undertook an inspection of a stand of moist Blackbutt *Eucalyptus pilularis* forest along the western boundary of Lot 2 DP599556 and adjoining properties at the northern end of Whian Whian Road in Lismore Local Government Area (LGA). At the time of the inspection a logging operation was being conducted in Lot 2 with bulldozed tracks and understorey vegetation, disturbed soil and felled trees evident.

A number of records of four Threatened vertebrate species were obtained during the inspection, comprising the Pouched Frog *Assa darlingtoni*, Marbled Frogmouth *Podargus ocellatus*, Sooty Owl *Tyto tenebricosa* and Masked Owl *T. novaehollandiae*. All species are listed as Vulnerable under the NSW *Threatened Species Conservation Act (TSC Act) 1995*. Pouched Frogs were recorded as particularly numerous, being heard calling from the leaf litter throughout the area traversed. Details of the records of the threatened nocturnal bird species are given in Table 1 below.

From discussions with local landholders during the inspection it appears that no surveys for these and other Threatened species had been carried out prior to logging commencing. I was also informed at this time that fresh Koala *Phascolarctos cinereus* scats had been located at the bases of several Tallowwoods *E. microcorys* in Lot 2 in sufficient densities to constitute Koala High Use Areas (as defined under the NSW Forestry Corporation's Threatened Species Licence for operations on Public Land in North East NSW). These records and the potential for a number of other Threatened species (including Threatened plants) to occur indicate the significance of the high productivity, tall wet Blackbutt stand for biodiversity conservation. In my opinion the stand's importance should have been recognized prior to logging commencing, with appropriate habitat protection measures implemented for Threatened species. The conservation status of Lot 2 is further enhanced by its location adjoining the south western boundary of Nightcap National Park.

Additional Threatened (*TSC Act*) vertebrate species likely to occur in Lot 2 include Loveridge's Frog *Philoria loveridgei*, Three-toed Snake-toothed Skink *Coeranoscincus reticulatus*, Stephen's Banded Snake

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Hoplocephalus stephensi, Powerful Owl *Ninox strenua*, Albert's lyrebird *Menura alberti*, Long-nosed Potoroo *Potorous tridactylus*, Parma Wallaby *Macropus parma*, Red-legged Pademelon *Thylogale stigmatica*, Little Bent-winged Bat *Miniopterus australis*, Golden-tipped Bat *Kerivoula papuensis* and Eastern Long-eared Bat *Nyctophilus bifax*.

Threatened (TSC Act) plant species considered likely to occur in the Lot include Red Bopplenut *Hicksbeachia pinnatifolia*, Green-leaved Rose Walnut *Endiandra muelleri* ssp. *bracteata* and Rusty Rose Walnut *E. hayesii* (R.Kooyman pers. comm.).

Table 1 Details of Threatened species recorded along the western boundary of Lot 2 DP599556, Whian Whian Road, Lismore LGA

species	date	Easting, GDA94	Northing, GDA94	comments
Marbled Frogmouth <i>Podargus ocellatus</i>	17 September 2013	530173	6834793	1 responded to call playback approx. 350m to east north east
Marbled Frogmouth <i>Podargus ocellatus</i>	17 September 2013	530173	6834793	1 responded to call playback, approx. 150m to north east
Marbled Frogmouth <i>Podargus ocellatus</i>	17 September 2013	530173	6834793	1 responded to call playback, approx. 150m to south east
Marbled Frogmouth <i>Podargus ocellatus</i>	17 September 2013	529959	6834642	1 responded to call playback, approx. 100m to west
Sooty Owl <i>Tyto tenebricosa</i>	17 September 2013	529959	6834642	1 responded to call playback, came in overhead
Masked Owl <i>Tyto novaehollandiae</i>	17 September 2013	530173	6834793	1 responded to call playback, 30m to west

David Milledge

18 September 2013

Appendix 2: Characteristic Species of Lowland Rainforest of Subtropical Australia recorded in Deleted Rainforest.

Appendix A: Characteristic Flora Species	common name	West	Centre	East
<i>Acmena ingens</i>	red apple; southern satinash			Y
<i>Acmena smithii</i>	lilly pilly, lillipilli satinash	Y	Y	Y
<i>Actephila lindleyi</i>	actephila			Y
<i>Alphitonia excelsa</i>	red ash soapbush	Y	Y	Y
<i>Archontophoenix cunninghamiana</i>	bangalow palm	Y	Y	Y
<i>Arytera distylis</i>	twin-leaved coogera			Y
<i>Asplenium australasicum</i>	bird's nest fern	Y	Y	Y
<i>Breynia oblongifolia</i>	coffee bush	Y		Y
<i>Bridelia exaltata</i>	brush ironbark	Y	Y	
<i>Calamus muelleri</i>	vine	Y	Y	Y
<i>Cinnamomum oliveri</i>	Oliver's sassafrass, camphorwood	Y		
<i>Cissus antarctica</i>	native grape vine, water vine	Y		
<i>Cissus hypoglauca</i>	giant water vine	Y	Y	Y
<i>Commersonia bartramia</i>		Y		Y
<i>Cordyline rubra</i>	red-fruited palm-lily	Y	Y	Y
<i>Cryptocarya obovata</i>	pepperberry tree, white walnut	Y	Y	
<i>Cupaniopsis newmanii</i>	cupaniopsis newmanii			Y
<i>Dioscorea transversa</i>	native yam	Y		
<i>Diploglottis australis</i>	native tamarind	Y	Y	Y
<i>Dysoxylum fraserianum</i>	rosewood	Y		
<i>Dysoxylum mollissimum</i>	red bean, Miva mahogany	Y		Y
<i>Dysoxylum rufum</i>	hairy rosewood, rusty mahogany	Y		
<i>Elaeocarpus grandis</i>		Y		Y
<i>Elaeocarpus obovatus</i>	hard quandong	Y		Y
<i>Endiandra pubens</i>		Y	Y	Y
<i>Eupomatia bennettii</i>	small bolwarra		Y	
<i>Ficus coronata</i>	creek sandpaper fig	Y	Y	Y
<i>Ficus watkinsiana</i>	strangling fig	Y		
<i>Flindersia schottiana</i>	bumpy ash	Y	Y	
<i>Glochidion ferdinandi</i>	cheese tree, buttonwood		Y	
<i>Grevillea robusta</i>	silky oak	Y		Y
<i>Guioa semiglauca</i>	guioa	Y	Y	Y
<i>Hicksbeachia pinnatifolia</i>	red boppel nut	Y	Y	Y
<i>Jagera pseudorhus</i>	foambark		Y	Y
<i>Linospadix monostachya</i>	walking stick palm		Y	
<i>Litsea australis</i>			?	

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<i>Lophostemon confertus</i>	brushbox	Y	Y	Y
<i>Maclura cochinchinensis</i>	cockspur thorn		Y	Y
<i>Mallotus philippensis</i>	red kamala	Y	Y	
<i>Melia azedarach</i>	white cedar	Y		Y
<i>Morinda jasminoides</i>		Y		
<i>Neolitsea dealbata</i>		Y	Y	Y
<i>Pittosporum undulatum</i>	sweet pittosporum	Y	Y	Y
<i>Planchonella australis</i>	black apple			Y
<i>Platynerium bifurcatum</i>		Y		Y
<i>Platynerium superbum</i>	staghorn fern	Y		Y
<i>Polyscias elegans</i>	silver basswood, celerywood	Y	Y	Y
<i>Samadera</i> sp. <i>Mt Nardi</i> (B.L.Walker AQ330746)	southern quassia			Y
<i>Rhodamnia rubescens</i>		Y	Y	Y
<i>Sarcopteryx stipata</i>	steelwood, corduroy	Y	Y	Y
<i>Sloanea australis</i>	maidens blush, blush alder		Y	
<i>Syzygium crebrinerve</i>	purple cherry, rose satinash	Y	Y	Y
<i>Tabernaemontana pandacqui</i>	banana bush, windmill bush			Y
<i>Tinospora tinosporoides</i>	arrow-head vine	Y		Y
<i>Toechima dassyrrhache</i>	blunt-leaved steelwood		Y	
<i>Toona ciliata</i>	red cedar	Y	Y	Y
<i>Triunia youngiana</i>	honeysuckle bush, spice bush		Y	
<i>Wilkiea hugeliana</i>	veiny wilkiea	Y	Y	