

# Ellis State Forest

## A case for protection

**Date:** 12<sup>th</sup> January 2012

In the 1960s and 70s Ellis State Forest, along with many other state forests across the NSW North Coast, suffered massive abuse from the then Forestry Commission through its infamous Timber Stand Improvement (TSI) program. Magnificent tall old-growth eucalypt forests and some rainforests, with trees measuring in excess of 2m diameter were virtually clear-felled, leaving only a handful of healthy mature to advanced mature trees to provide seed for future commercial forestry.



Those wet forests are difficult to burn and many of the stumps and logs from that program still litter the forest floor today.

As is clearly seen in these photographs, the result of this clear felling, is a dense regrowth of mainly rainforest species. However, there are areas containing Eucalypt regrowth, now 40 years old, which Forests NSW is planning to log in early 2012.

Having received details of the proposed logging through Forests NSW's Harvest Plan for Compartments, 63 and 64, the Clarence Environment Centre answered call from locals to investigate.

It was clear from the Plan, which shows an expected timber yield dominated by “High Quality Large” logs (4,300 m<sup>3</sup>), and girders (350m<sup>3</sup>), and a large amount of “Low Quality” timber (3,300m<sup>3</sup>), which will also come predominately from older “Late Mature” trees, that the retained seed trees from the TSI program are being targeted. This is particularly clear when considering the comparatively low quantities of High Quality Small (just 1,650m<sup>3</sup>) and Poles (650m<sup>3</sup>) that are expected.

Over the past 7 years, the Clarence Environment Centre has repeatedly reported Forests NSW's failure to retain the required number of habitat and recruitment habitat trees, so we believe it is important that we emphasise, not only the importance of habitat trees, but also the letter of the law relating to the retention of hollow-bearing trees under Forests NSW's Threatened Species Licence.

Threatened fauna on the NSW North Coast is dominated by tree-hollow dependent species such as parrots, cockatoos, possums, gliders, microbats, and owls. The main reason why all of these species have been determined to be heading for extinction if trends are not reversed, is loss of habitat, i.e. hollow-bearing trees.

Under its Licence prescription for “**Regrowth Forest**”, Forests NSW must comply with:



**A late mature seed tree at Ellis SF surrounded by regrowth Eucalypts.**

*“The following prescription must be applied for those compartments that lie within the regrowth zone as shown on Map 1 attached to this licence variation.*

**c) Regrowth Zone Hollow-bearing Tree Retention**

- i. A minimum of ten hollow-bearing trees must be retained per two hectares. Where this density is not available then those hollow-bearing trees present must be retained.*
- ii. Retained, hollow-bearing trees must be selected from the trees with diameters within the largest 30% of the stand and be live trees with good crown development.*
- iii. Retained hollow-bearing trees should represent the range of species that occurs in the area.*
- iv. Trees retained outside the net logging area must not be counted as hollow-bearing trees.*
- v. Hollow-bearing trees must be scattered throughout the net logging area.*
- vi. Hollow-bearing trees must be marked for retention.*

**d) Regrowth Zone Recruitment Tree Retention**

- vii. For each hollow-bearing tree retained as part of the Regrowth Zone Hollow-bearing Tree Retention prescription above, a recruitment tree must be retained.*
- viii. Retained recruitment trees must show potential for developing into hollow-bearing trees with crown development. Trees in the mature and intermediate growth stages should be retained as recruitment trees.*
- ix. Retained recruitment trees should represent the range of species that occurs in the area.*
- x. Trees retained outside the net logging area must not be counted as recruitment trees.*
- xi. Recruitment trees must be scattered throughout the net logging area.*
- xii. Recruitment trees must be marked for retention”.*

According to the harvest plan, the net logging area in Compartments 63 and 64 totals 326 hectares. **Therefore, under the above prescription, a minimum of 1,630 habitat trees must be retained, if available, and the same number of recruitment habitat trees. A grand total of 3,260 trees.**

Having undertaken our own survey of those compartments, we believe that figure is unattainable, and therefore all the “Mature 60 – 100cm diameter” (making up to 10% of the trees to be logged); and “Late Mature/Over-mature, >100cm diameter (making up a further 10% of trees to be logged), **must be retained as habitat trees, as all would contain hollows.**

We also contend that if the required 1,630 mature and late mature trees cannot be found, then the numbers should be made up with largest of those early mature trees, measuring over half a metre in diameter, as many would already contain small hollows.

For each habitat tree retained, the above prescription requires a recruitment habitat tree to be retained. These recruitment trees must be in their mature and intermediate growth stages, which would account for about third of the larger Early Mature trees identified for logging. **Therefore, we believe that if Forests NSW complies with its Threatened Species Licence, the expected yield from those two compartments will drop by almost 75%, and make the logging economically unviable.**

We have pointed out all of this to the relevant Ministers for Primary Industry and Environment, along with a reminder of the definition of Ecologically Sustainable Forest Management (ESFM), the principle that is supposed to underpin the Integrated Forests Operations Approval. That principle states that:

**“ESFM is defined as the management of forests so that they are sustained in perpetuity for the benefit of society, by ensuring that the values of forests are not lost or degraded for current and future generations.”**



For example, where today would we find forests dominated by trees such as that pictured at left which was likely 500 years old?

It is clear to anyone involved in forestry that what is currently happening in NSW is anything but sustainable. We are losing forest values at an unprecedented rate, and we fear much of it has been lost permanently.

With that fact in mind, the Clarence Environment Centre (CEC) has undertaken an assessment of the ecological values of Ellis State forest, and provided reasons why logging should be suspended immediately.

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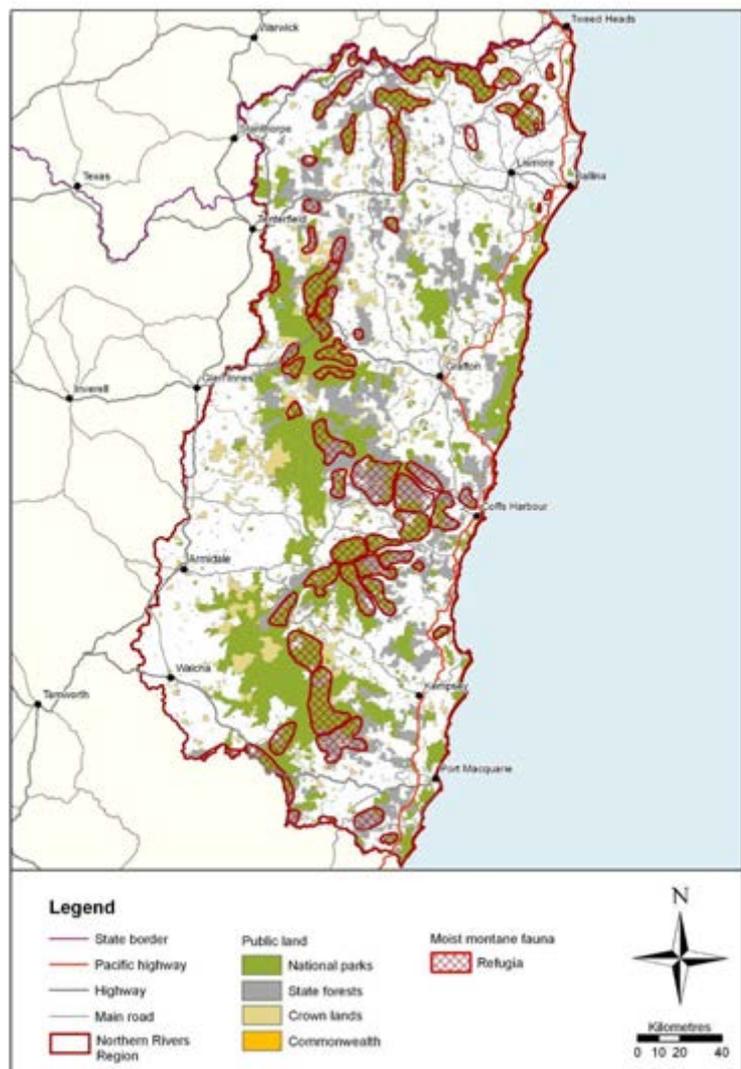
### Assessment by the Clarence Environment Centre of the Draft Harvesting Plan 3724 - Ellis State Forest Compartments 63 & 64

The following assessment of Forests NSW's Draft Harvest Plan 3724, is assisted by a pro-bono desk-top assessment undertaken for the Environmental Defenders Office, by Dr Stephen Phillips. Dr Phillips did not visit the site, and was not privy to much of the information subsequently collected by CEC.

Ellis State Forest lies within the zone otherwise described as the McPherson Macleay Overlap, an internationally recognised biodiversity rich region, where flora from subtropical regions mixes with those from southern temperate Australia.

The mountain forests between Nymboida and Dorrigo have also been mapped in the 2010 Northern Rivers Regional Biodiversity Management Strategy, as “refugia” for wildlife migration in the face of climate change, connecting as Dr Phillips pointed out, the coastal forests of the Coffs Coast with those of the Great Dividing Range (see image at right).

Dr Phillips was critical of the Harvest Plan which he claimed underestimated biodiversity levels by between 30 – 50%, claiming that, *“in addition to the potential for additional threatened flora species such as Slender Marsdenia Marsdenia longiloba, Hairy Joint Grass Arthraxon hispidus and Milky Silkpod Parsonia dorrigoensis, fauna species such as the Hastings River Mouse Pseudomys oralis; Eastern Chestnut Mouse P. gracilicaudatus, and Stephen’s Banded Snake Hoplocephalus stephensi and a number of microchiropteran bat species also have a very high probability of occurrence.”*



Also, Dr Phillips expressed the professional belief that: *“There is no evidence that the prescriptions proposed to be applied during the harvesting operation have been informed by a systematic survey effort. Indeed, the greater majority of threatened species records informing the harvesting plan are clearly associated with the existing road and track network. The absence of a systematic survey effort means that there is a high likelihood that individual and/or localised populations of threatened species referred to above will be present within the areas to be logged”*.

As already mentioned, Dr Phillips' assessment was restricted to what is presented in the Harvest Plan, and was not necessarily privy to what actually happens during logging. Nor was he provided with the fact that Ellis State Forest had been subjected to virtual clear-felling in the 1970s, meaning that virtually all the existing hollow-bearing trees are the seed trees left from that TSI program, timber from which now makes up much of the current estimated yield.

Comprehensive audits of logging operations by the North East Forest Alliance and the CEC over the past two years, have revealed a systemic disregard for threatened species prescriptions as required by Forests NSW's Threatened Species Licence.

- At Yabbra, Girard, Doubleduke, Clouds Creek and Wedding Bells State Forests, no mark-up of Yellow-bellied Glider sap feed trees had occurred, and in all cases the number and quality of retained trees were not as required under the licence. OEH inspectors, investigating our reports, did little more than issue warnings, and the breaches continue. **CEC's surveys identified Yellow-bellied Glider sap feed trees at 3 locations**



**but, although the Harvest Plan acknowledges (page 7) that “reliable records exist within or within close proximity”. No findings of this species is recorded in the Plan, so no mark up is required.**



- Inadequate retention of primary Koala feed trees was also identified at both Doubleduke, Wedding Bells, Boambee, and Clouds Creek State Forests. **With 24 Koala records, Ellis SF is clearly prime habitat for this highly threatened species whose numbers are known to be in serious decline.**

Dr Phillips was also highly critical of the Forest NSW response to the required Koala protection, claiming: *“This area contains a known koala high use area (and therefore supports a resident koala population). Unfortunately, the “star search” referred to in the Harvesting Plan does not have any basis in science, nor is it capable of accurately delineating areas of occupancy.”*



- The use of large tracked machinery for logging, ensures massive, unavoidable destruction of *Allocasuarina* species, which are supposedly protected to provide food for threatened Glossy-black Cockatoos. **CEC's surveys recorded and photographed the birds feeding in Compartment 63. The Harvest Plan recorded 2 feed trees in Compartment 63, and the Prescription Summary states that those trees will be protected.**

Forests NSW's Threatened Species Licence however, requires only that: *“Specified forestry activities should be conducted in such a manner as to minimise damage to stands where *Allocasuarina* spp. dominate the canopy, sub-canopy or understorey.* That requirement is not included in the Harvest Plan, and our previous experience has been that no care is given to “minimise” damage to *Allocasuarina* species, the sole food source for the Glossy-black Cockatoo.

- Despite the high probability of large trees hollows providing roosting sites for micro-bats, we have yet to see any harvest plan recording a bat roost site. It is clear the ecologists are not looking for them, a relatively simple task using Anabat or similar devices, to avoid providing the required 30m exclusion zone. **CEC did not conduct night searches, but did identify numerous likely bat roost sites** (see right).

There are 15 threatened Microbat species occurring in the Upper North East Region of NSW. CEC can only ever recall 3 of these species being mentioned in Forests NSW's Harvest Plans. **Therefore we believe they are deliberately not recording all sightings.**



**A hollow at the base of a dead tree, a popular bat roost site**

**Likewise, we have sincere doubts that Prescription 5.14.1.a, requiring that: “Likely microchiropteran bat roost trees must be inspected prior to harvesting operations approaching within 100 metres of such trees”, is ever contemplated, remembering that: “Likely roost trees are stags greater than 30 centimetres dbhob, large trees with accessible base hollows, or hollow-bearing trees”.**

- From the fact that our audits routinely identified threatened flora, many of which were not even mentioned in the harvest plans as “possibly occurring”, we can only deduce that the ecologists are either unwilling, or unqualified to identify them. Forests NSW does have records of *Olearia flocktoniae* occurring 50m of Compartment Boundaries, and of *Parsonsia dorrigoensis* in Compartment 63, **but neither feature on the Plan's map, or feature's list.**
- Audits have uncovered widespread vegetation mapping errors. At Doubleduke, the endangered coastal floodplain forest was mapped as Sydney Peppermint, a species that does not occur north of the Hunter, At Clouds Creek, the Warm Temperate Rainforest was not provided with the required 20m buffer zone. OEH claimed to have reviewed the GIS mapping and claimed the rainforest was not Warm Temperate, but failed to state what type they believed it was. **At Ellis State Forest, CEC found the rainforest, described as Fig – Giant Stinging Tree – Myrtle, contains neither figs or stingers, while Myrtles too were not apparent.**

However, possibly the worst case of misidentification was at Grange State Forest, where endangered old-growth Lowland Rainforest, was mapped as dry sclerophyll Scribbly Gum – Blackbutt, neither of which occurred there. Forests NSW was fined a pathetic \$3,000, for logging it, probably a fraction of the investigation costs. No rehabilitation was ordered.

**CEC also identified unmapped rainforest in the northeastern section of compartment 63. This simply is not good enough. There are a significant number of areas, mostly unmapped drainage lines that are shown on the maps as “Areas for Further Assessment”.**



**Old-growth Lowland Rainforest logged at Grange SF**

**One such area examined by CEC, was found to be a gully, approximately 20m wide with defined banks up to 5m high which, if the clearly inadequate stream mapping on the 1 : 25,000 topographical maps were corrected, should appear as a 2<sup>nd</sup> order stream.**



**A clearly defined unmapped gully, one of many in Ellis State Forest.**

**We believe these areas must be assessed as part of the ecological assessment, and not left to foresters marking up for logging. As it is those areas remain mapped as part of the net harvest area, and provides Forests NSW with further opportunities to use, what should be marked as exclusion zones, to manipulate figures to offset excessive logging rates, and habitat tree destruction elsewhere in the compartment.**

- While Forests NSW is not allowed to log in excess of on average 40% of basal area within net harvest areas, in reality that percentage is being grossly exceeded, up to 80% in many areas. At Wedding Bells State Forest a part of the 'tract' was marked as "offset area" to allow the virtual clear-felling of the remainder. At Clouds Creek (Compartment 79) where parts of the compartment were left unlogged in 2010, to allow the higher logging rates elsewhere, Forests NSW has recently notified its intention to return to log that remainder early in 2012.

**All of this is having a disastrous impact on biodiversity.**

Dr Phillips clearly echoes our concerns when summing up:

*"As a consequence of the above and in my professional opinion, the extent of potential and direct impacts upon threatened species, populations or ecological communities or their habitats will include the following:*

- (i) modification of critical habitat elements such as drainage lines, depressions, soaks and other hydrological assets such that these areas are rendered unsuitable for occupancy by threatened amphibians, at least 3 species of which are known occur within the Compartments proposed for logging and which will not be effectively accommodated by record-based prescription;*

*(ii) loss of critical habitat elements such as den, roosting and nesting trees for at least 5 species of obligate hollow-dwelling birds and mammals;*

*(iii) loss of critical food tree resources for the koala, a resident population of which is clearly present in Compartment 63 at least, and which will not be sustainably accommodated by tree retention rates proposed by the relevant prescription; and*

*(iv) a general reduction in the ability of the landscape to support resident keystone threatened species because of a reduction in prey density brought about by the logging operation and the associated modification of habitat.*

*It would also be my opinion, again because of the lack of systematic survey, that direct mortalities of threatened species will also occur as a consequence of the logging operation. The extent of such impact will vary depending upon the time of year at which the logging occurs and for species such as the koala, will occur post-logging as a consequence of loss of food resource.*

*Because of the inadequate nature of the threatened species assessment, it would be my opinion that there is also the risk of such direct impacts to contribute to a localised extinction event for one or more of the threatened species known or likely to occur within the area proposed for logging.*

The widespread failure to retain the required number of habitat and recruitment trees, has been identified by our audits of logging operations. Despite our claims that the above prescriptions are unequivocal in their requirements for the retention of 10 of each per each 2 hectares of net harvest area, and be scattered through the net harvest area, OEH inspectors disagree, and claim the prescription is open to interpretation. This is allowing an approach which can see habitat trees all grouped together, instead of being scattered across the landscape.

**In short, our audits have not found a single forest where the required numbers of hollow-bearing trees have been marked for retention, while at the same time, in all cases, old-growth trees have been logged.**

In previous audits we have gathered evidence of widespread use of Occupational Health and Safety conditions being used to excuse removal of old-growth trees. Likewise there is evidence of logging residues being deliberately heaped against habitat trees for post logging burning, which sees the tree burned to the ground.

At Clouds Creek, where post



**A hollow-bearing tree cut down for OH&S reasons**

harvest burning is difficult owing to the wet nature of those forests, we photographed numerous torched habitat trees with the surrounding vegetation unburned (such as that photographed at right).

The Clarence Environment Centre has argued that, given the widely recognised importance of these highland forests for their biodiversity, upon which the human race depends for its survival, and the refuge it will provide for migrating wildlife in the face of climate change, these forests need to be conserved in perpetuity. Given also the seeming inability of Forests NSW to comply with its Licence conditions, coupled with a completely ineffectual compliance monitoring agency, we believe that all logging of these highland forests should cease immediately.



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