NEFA BACKGROUND PAPER

Protecting habitat trees on State forests

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Large old trees provide essential resources for numerous animals that are not provided sufficiently by young trees, particularly hollows needed for denning and nesting by 174 of NSW's species. It is the giant oldgrowth trees, hundreds of years old, 10-15 stories high. 1-3 metres diameter, with big hollows suitable as homes for owls and gliders that are the most awe-inspiring and important. (see **The Importance of Old trees**).

Regrettably the surviving veterans are not treated with the respect and reverence they deserve. Historically those big old trees not cut down for sawlogs, sleepers or fence-posts, or retained as seed trees, were ringbarked when time was available. This has left oldgrowth trees a scarce resource, including in many logged forests that were later made into national parks. Compounding their problems is the logging of the big mature trees with their abundant nectar, which are needed to become the hollow-bearing trees of the future.

NEFA were instrumental in getting most large stands of oldgrowth forest protected in north-east NSW. In those logged forests we have been unable to protect, the felling of oldgrowth trees continues, though over decades NEFA have fought to retain at least some of those left, and the mature trees needed to replace them.

Since the first Threatened Species Licence was issued in 1997, legal protection for minimum numbers of habitat trees, comprising hollow-bearing trees, mature recruitment trees and mature feed trees, have been applied across NSW State forests. Hollow-bearing trees are those with hollows in their branches and trunks potentially able to be used for denning or nesting by fauna. Recruitment trees are the next largest trees capable of developing hollows to replace hollow-bearing trees when they die. Feed trees are basically mature eucalypts of certain species known to produce copious nectar, or smooth-barked species suitable for foraging by Yellow-bellied Gliders for invertebrates. The prescriptions have specified that those mature trees retained be large healthy trees and that during logging damage to all habitat trees be minimised. All habitat trees were required to be identified and marked before logging.

In 2009 it became obvious to NEFA that numerous requirements of the Threatened Species Licence, including those for habitat trees, were not being complied with by the then Forests NSW (which was later renamed Forestry Corporation), and that the regulator at the time, the Department of Environment, Climate Change and Water (DECCW), were not enforcing the rules. DECCW became the Office of Environment and Heritage (OEH) and their forestry unit was then transferred into a forestry unit in the Environment Protection Authority (EPA).

We then began to undertake regular systematic audits of logging operations. It is emphasised that we only assessed small parts of one or two logging operations a year, representing a tiny fraction of the area being logged each year. Our findings of frequent, significant and often systematic breaches are therefore indicative of the flagrant disregard of the logging rules and the massive scale of breaches occurring across State forests. That many of these breaches continued unabated for the decade covered by our logging audits displays regulatory failure.

As under NSW's laws we are unable to prosecute breaches ourselves, our only avenue has been to report breaches to the regulator and publicise our findings. This report documents some of our

experiences since 2009 in trying to have legal requirements of the Threatened Species Licence pertaining to habitat trees enforced.

Problems NEFA repeatedly identified with the (now) Forestry Corporation's implementation of legal requirements for management of habitat trees are:

- Failure to mark sufficient habitat trees to satisfy requirements, often only marking a few token trees, with feed trees rarely identified, and at times not marking trees until logging was completed.
- Marking-up of areas after we reported breaches, before being investigated.
- Failure to retain the required numbers of hollow-bearing trees, and logging ones required.
- Commonly and repeatedly retaining small, suppressed and damaged recruitment trees, rather than large healthy trees.
- Where there were low numbers of hollow-bearing trees, marking hollow-bearing trees as recruitment trees to avoid having to retain the required number of recruitment trees.
- Interpreting the requirement for 10-16 hollow-bearing trees per 2 hectares opportunistically, on one hand saying they didn't need to retain the required numbers in one patch of forest because they were retained elsewhere in the logging area, and on the other saying they only needed to retain the required numbers in a patch of forest despite there being few elsewhere.
- Frequently and carelessly damaging retained habitat trees by sideswiping them with machinery, dropping trees on them, bulldozing tracks next to them, and/or driving over their roots.
- Imperilling the survival of habitat trees, and increasing the risk of damage, by leaving branches and leaves piled against their trunks ready for burning.

For habitat trees NEFA initially started reporting examples of breaches in the expectation that the regulator (DECCW/OEH/EPA) would undertake more thorough surveys to identify other breaches. When it became apparent that they wouldn't, we started documenting them more thoroughly, only to find that the regulator refused to take meaningful and effective action. The EPA's responses to our numerous complaints have sometimes been to ignore them, though more often it has just been to issue largely ineffective Official Warnings or Cautions, time after time after time.

When we took this to the next level by undertaking systematic samples and extrapolating them across the whole logging area to identify the scale of the breaches, the EPA still refused to take meaningful action, while coming up with new excuses for doing nothing. For example in Cherry Tree State Forest, from a 50 hectare sample we estimated 527 cases of obvious logging damage to habitat trees, and 677 cases of excessive debris left around habitat trees. The EPA said they were considering prosecuting these breaches, though in the end they took no action what-so-ever, maintaining a nonsense argument that they couldn't prove that someone else didn't cause the damage:

> *Although it is likely the damage to the trees and the debris were as a result of harvesting operations, the EPA would be required to prove beyond reasonable doubt that each individual instance of damage or debris was as a result of an action by those undertaking the harvesting operation. The investigation was unable to obtain evidence that would rebut a defence that the damage was caused by some other means.*

Soon after, as we continued to reveal ongoing damage to habitat trees, the EPA changed their excuse for not taking meaningful action to "*it was not possible for the EPA to establish if the damage exceeded that of being 'minimised to the greatest extent practicable'".*

While our efforts did result in better marking-up ahead of logging, we still regularly found insufficient trees retained, and hollow-bearing trees marked as recruitment trees. In some areas there also seemed to be a reduction in the amount of debris left around trees, though the retention of small, suppressed and damaged recruitment trees, and damage to retained trees has been relentless.

In 2018 the EPA solved their enforcement problem by agreeing with the Forestry Corporation to remove retention requirements for recruitment and most feed trees, while significantly reducing protection for hollow-bearing trees, and allowing alternative trees to be chosen from those left to replace any significantly damaged.

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1.The Rules

From 1999 until 2018 the Threatened Species Licence (**TSL** 1999) for north-east NSW was the principal regulation that was applied for threatened species when undertaking logging of public native forests on State forests. This was one of three licences under the Integrated Forestry Operations Approval (IFOA). The TSL included a variety of prescriptions aimed at retaining minimum numbers of mature and old trees to mitigate impacts on threatened species, specifically requiring the retention of:

- 10 large old **hollow-bearing trees** (where extant) per 2 hectares for hollow-dependant fauna, increased to 16 per 2 hectares where there were more than 1 Greater Glider per ha and a record of a Powerful Owl in the vicinity.
- A mature or late mature tree as a **recruitment tree** to replace each retained hollow bearing trees when they die,
- 6 mature and late mature **eucalypt feed trees** for nectivorous species in every two hectares of the net logging area where they occur (increased to ten eucalypt feed trees in compartments with records of the most vulnerable nectivores);
- 15 mature and late mature feed trees within 100 metres of a Yellow-bellied Glider sap feed tree, observation or den site record, or within 200m of a call detection record;

- Yellow-bellied and Squirrel Glider sap feed trees;
- roosts, dens and nests of various bats, owls and gliders (which are very rarely found);
- all hollow-bearing trees and stags within 100m of Pale-headed Snake; and,
- ten stags (dead trees) per 2 ha where they occur and are not considered dangerous.

In the coastal forests only the remaining numbers of hollow-bearing trees needed to be retained (up to 10 per 2ha), whereas in the escarpment forests the largest available trees needed to be retained where there were insufficient hollow-bearing trees left to meet the 10 per 2ha requirement. For a while in the coastal forests. where there were records of Brown Treecreeper the requirement was where there were not 10 hollow-bearing trees per hectare "*additional trees must be retained to meet the requirements of the ten per two hectares".*

Trees retained as hollow-bearing trees and recruitments can also satisfy the requirements for retention of mature and late mature feed trees if they are the appropriate species. In practice the Forestry Corporation used this to justify usually not marking any feed trees, even when there were few hollow-bearing and recruitment trees or they were inappropriate species.

NEFA's experience is that roosts, dens and nests of various bats, owls and gliders are rarely searched for or found, and that eucalypt feed trees, Yellow-bellied Glider feed trees and Yellow-bellied Glider and Squirrel Glider sap-feed trees are rarely identified or protected. In practice the only habitat tree retention prescriptions that are at least applied in a cursory fashion are those relating to hollow-bearing and recruitment trees.

The Threatened Species Licence required hollow-bearing and recruitment trees selected must be live trees within the net logging area belonging to a cohort of trees with the largest diameter (dbh – diameter at breast height), have good crown development, have minimal butt damage, and be evenly scattered throughout the net logging area. Further, recruitment trees were required to be of a mature or late mature growth stage that are not suppressed prior to harvesting and appear to have good potential for hollow development and long term survival. Suppressed trees are those whose growth has been stunted by competition from nearby trees.

LEFT: Small tree marked as hollow-bearing tree in Styx River SF, despite not having any hollows and larger trees being logged. RIGHT: Severely damaged tree retained as a hollow-bearing tree in Girard SF, aside from

being half dead the tree had no hollows and is now incapable of forming them, while giant healthy oldgrowth trees over 2m in diameter were cut down nearby.


Instead of retaining large healthy trees as Recruitment trees, small defective and damaged trees are more often retained as adjacent large healthy trees are cut down. LEFT: small suppressed recruitment (R) tree in Yabbra SF. RIGHT: A 20 or so year old Blue Gum fallaciously marked as a recruitment tree in Koreelah SF. -


LEFT: Obvious hollow-bearing tree, 120 cm diameter, marked as R tree to avoid having to retain it and an additional R tree, Cherry Tree SF. RIGHT: Obviously damaged tree, with split trunk, retained as an R tree, Cherry Tree SF.

Damage to retained habitat trees was required to be minimised to the greatest extent practicable, by utilising techniques of directional felling, removing or flattening logging debris to a height of less than one metre, and minimising disturbance to ground and understorey, within a five metres radius of retained trees. The original aim (long forgotten) was to both avoid damage to the tree and to retain an intact area (including understorey plants) within 5 metres. In March 2013 the EPA implemented changes to the TSL which surreptitiously (by changing the numbering) removed the requirement that damage to retained Yellow-bellied Glider feed trees "*must be minimised to the greatest extent practicable",* while still requiring they be retained and marked.

Hollow-bearing trees damaged during logging, Cherry Tree SF.

Recruitment trees damaged by logging, Cherry Tree SF.

All retained trees were meant to be marked for retention before logging started, with a H for hollow-bearing tree, R for recruitment tree, E for Eucalypt feed tree, and YBG for Yellow-bellied Glider feed tree.

To increase the available sawlogs, in 2018 the Coastal Integrated Forestry Operations Approval (CIFOA) changed these by removing the requirements to retain and protect recruitment trees, eucalypt feed trees (except for in the vicinity of records of Regent Honeyeater and Swift Parrots), feed trees around records and sap-feed trees of Yellow-bellied Glider, and all the hollow-bearing trees near records of Pale-headed Snake. The hollow-bearing tree prescription was changed to the retention of up to 8 hollow-bearing trees where they remain.

Braemar SF: When the rule change removed the protection for Recruitment (R) trees the Forestry Corporation cancelled marked R trees so they could be logged. Both these cancelled trees were found to be active Koala feed trees with Koala scats beneath them.

Under the new rules there is a requirement that all "*giant*" blackbutt and alpine ash over a 1.6m diameter at stump height over bark (DSHOB) and for all other species all "*giant*" trees over 1.4m DSHOB be retained. The NRC (2016) again over-rode the EPA who were advocating a "*Minimum*

135 centimetres blackbutt, Minimum 120 centimetres all other species". As noted by the NRC these size thresholds were specifically chosen because "*proposed size thresholds likely to have limited impact on wood supply (**no net change to wood supply**)*".

All such trees are the largest trees and thus should have been retained under the TSL, though in practice the Forestry Corporation continued to log them whenever they thought they could get away with it. At least this stops such blatant rorting as found in Girard and Koreelah State Forests. Though all trees over a metre diameter should be retained as such large trees are becoming increasingly rare.

While there is still a requirement not to damage retained hollow-bearing and giant trees, if they are damaged they can be replaced with a comparable tree, if there is not a comparable tree they can be replaced with a mature tree. Damage means it has affected the tree's longevity or suitability to fulfil the purpose for which it has been retained has been compromised. If there are debris left around a tree they can be flattened to a height less than a metre, or they can leave it if removing it would damage the tree.

These represent a significant weakening of the requirements for hollow-bearing trees, and even creates an incentive to damage them and replace them with mature trees, basically meaning the war of attrition can proceed with no meaningful consequences. Not that there were any anyway.

2. Retaining Habitat Trees

This section details some of the results from NEFA's audits of forestry operations in Upper North East NSW over the decade 2009 until 2019 relating to retention and protection of habitat trees, and the responses of the regulator to our proven complaints. NEFA's audits have focussed on a range of issues, so this just reflects one aspect. What our audits have shown is that abuse of the legal requirements to identify and protect habitat trees is common and widespread, resulting in the logging of, and damage to, many thousands of habitat trees every year. The concern is that despite our efforts the abuses have continued on a massive scale.

NEFA's audits are available at https://www.nefa.org.au/audits.

We have reported all our findings to the regulator, which until recently was basically the same unit being shifted around from DECCW to OEH and then to EPA. Initially we also engaged with Forests NSW (now Forestry Corporation), though we discontinued this when it became apparent that they are totally unrepentant, and would often attempt to cover-up problems before the regulator investigated.

While most of NEFA's complaints (where investigated) have been upheld, the response of the regulator has sometimes been hostile and is usually ineffective. It is obvious that their regulation of the legal requirements for the retention and protection of habitat trees has largely failed to change the attitude of the Forestry Corporation or reduce their serial offending. Principally the EPA have sought to rely upon education to reduce offences, by undertaking token audits, and using Warning Letters or Action Plans to change behaviour. Though these have been proven to be ineffective, largely because the Forestry Corporation contest and deny most breaches, while the inconsequential legal responses are ineffective in forcing behavioural change.

There has never be a prosecution of the Forestry Corporation in north-east NSW for a breach of the Threatened Species Licence, despite NEFA revealing many egregious breaches.

Without recourse to legal remedies, NEFA have put considerable effort into trying to force change through other avenues, by publicising breaches, making complaints to the responsible Ministers, lobbying, and detailing breaches in numerous submissions to inquiries.

It is extremely concerning that despite our efforts, for over a decade the same offences have been regularly occurring in every forestry operation NEFA visit. As documented below, we have witnessed the unabated attrition and damage to hollow-bearing trees, the loss of the mature trees needed for both nectar and recruitment trees, and the flouting of environmental laws with impunity.

The responsibility lies not just with the Forestry Corporation's serial offending, as equal responsibility needs to be attributed to the ineffective regulators as highlighted in the case studies below.

In response to NEFA's complaint about reckless damage to a Yellow-bellied Glider sap feed tree in Wedding Bells State Forest in 2011, the EPA responded they were making the *"marking and protection of yellow-bellied glider sap feed trees as one of its priorities"*. Soon after giving us this assurance, in company with a fauna expert in August 2012 we showed them an obvious Yellow-bellied Glider sap-feed tree that had been logged in Royal Camp State Forest which they refused to take action on claiming they couldn't confirm it was a feed tree '*beyond reasonable doubt'* (there was no doubt). Then to follow through on this priority action in March 2013 they changed the rules to remove the requirement that damage of Yellow-bellied Glider feed trees "*must be minimised to the greatest extent practicable during harvesting operations*". It was thereafter open slather.

In response to NEFA's complaints about Royal Camp State Forest, the EPA made habitat trees a compliance priority in 2013. After that they found that poor selection and retention of habit trees was the most frequent and widespread breach of the Threatened Species Licence.

For example, in 2014 the EPA (Greg Abood 13 August 2014) audited 6 State forests in the Upper North East and the only breaches they found were of habitat trees. They undertook a transect in each forest, in each case finding breaches of habitat tree licence requirements, with a total of 34 breaches in a total area of 11.7 ha. The principal problem was that the Forestry Corporation was logging the trees "*with the largest dbhob*" (diameter) and retaining smaller trees as recruitment trees, with the EPA noting *"EPA audits found a common trend that appropriate recruitment trees were not retained in accordance with the Threatened Species Licence (TSL) requirements"*. For these breaches there were no fines, all they required was an Action Plan.

It is therefore not surprising that the breaches continued unabated. For example in the EPA's 6 proactive audits undertaken in the Upper North East region in 2015 they assessed a total of just 7.9ha for habitat tree retention, with 94 habitat trees assessed they identified 36 breaches. Once again selection of smaller trees as recruitment trees was a frequent problem, as was damage to retained trees. For these widespread and frequent breaches the only regulatory action they took was to require 11 Action Plans, time and time again.

While it should have been clear from these tiny samples of widespread logging activities that the EPA were dealing with systematic and repeated breaches across the landscape, they apparently made no attempt to scale up their assessment to quantify the extent of the problem, and instead went on treating each isolated instance as minor and inconsequential. Even though the Forestry Corporation made it clear to the EPA that they were unrepentant by denying most findings, the EPA failed to escalate their regulatory responses.

In frustration with the EPA's ineptitude, in 2015 NEFA audited 50 hectares in Cherry Tree State Forest to prove our case of the scale of the problem. Identifying across the one logging operation inadequate retention of habitat trees and likely over 500 cases of damage to habitat trees from being hit by machinery and falling trees, with excessive debris left around over 600 trees. Astoundingly the EPA refused to take any regulatory action what-so-ever (not even to remove the debris) maintaining a nonsense argument that they couldn't prove that someone else didn't cause the damage.

It therefore came as no surprise when in 2018 the EPA changed the logging rules to remove requirements to retain recruitment trees and most feed trees, while weakening the protection requirements for the remaining hollow-bearing trees to make them virtually unenforceable.

Following are summaries of some of NEFA's findings relating to habitat trees made during our audits of forestry operations from 2009 to 2019, and the responses from the forestry unit as it moved between DECCW, OEH and later the EPA.

2.1. Yabbra State Forest

NEFA undertook a 'Preliminary Audit of Yabbra State Forest Compartments 162 and 163' in 2009, making incidental observations of token marking of habitat trees, mostly near roads, retention of young suppressed recruitment trees, likely hollow-bearing trees felled and excessive debris left around habitat trees. We also documented 11 Yellow-bellied Glider sap feed trees, and observed a number of others, that had not been identified by the then Forests NSW, or had the required 15 mature and late mature feed trees within 100 metres identified or protected. Given the high reliance of Yellow-bellied Gliders on sap-feed trees in Yabbra, apparently because of the widespread Bell Miner Associated Dieback affecting flowering, it was apparent from our small sample that many hundreds of sap-feed trees and associated feed trees weren't marked, and many would have been logged.

At that stage we assumed that if we highlighted problems that the then Department of Environment, Climate Change and Water (DECCW) would fully investigate, though apparently they only made a brief visit on one day. DECCW (Simon Smith, 19 May 2010) commented that "*Forests NSW are not required to mark up retained trees if the understorey consists of thick impenetrable understorey greater than one metre high … DECCW officers observed limited instances of failure to mark hollow bearing and recruitment trees where Forests NSW could not subsequently support the presence of dense understorey*", also noting that "*DECCW officers also observed an instance of poor selection of a recruitment tree*". For these breaches DECCW issued a Formal Warning.

Similarly DECCW made no apparent attempt to quantify the numbers of Yellow-bellied Glider sap feed trees, or the 15 feed trees within 100m, that were unmarked, or the immense numbers that would have been logged, simply noting they issued "*a penalty notice in regard to the failure to mark Yellow-bellied Glider Sap feed trees and feed trees*".

Despite none of our complaints in Yabbra being fully investigated, DECCW issued Forests NSW with 4 Penalty Infringement Notices (PINs) and corresponding $300 fines for "*harvesting timber within IFOA mapped rainforest*", "*the failure to mark Yellow-bellied Glider sap feed trees and feed trees*", "*timber felling within a wetland and wetland exclusion zone*", and "*machinery entry within a wetland and wetland exclusion zone*". DECCW also issued a formal warning to Forests NSW for not identifying habitat and surveying for Richmond's Frog, and inadequate mark-up of exclusion zones and retained habitat trees. Fisheries NSW issued 2 PINs and corresponding $500 fines for failing to

mark exclusion boundaries on unmapped drainage lines and for logging, bulldozing and burning within 10m of these unmapped streams.

Clearly the scale of breaches identified in this one operation warranted a full investigation and a legal prosecution. For NEFA it highlighted the reckless disregard Forests NSW had for the requirements of the Threatened Species Licence due to a decade of lax and ineffective regulation by DECCW. It motivated us to try and make Forests NSW comply with their legal obligations and to make the EPA undertake effective regulation. With no ability to take legal action ourselves, our only avenue was to expose what was happening.

2.2. Doubleduke State Forest

NEFA's June 2010 'Preliminary Audit of Doubleduke State Forest Compartments 144, 145 and 146' identified one area that appeared to have had hollow-bearing trees marked after logging, and found logging underway in another area without hollow-bearing and recruitment trees being marked. Once again there were frequent breaches of habitat tree requirements with large senescent hollow-bearing trees felled while nearby damaged late-mature trees without significant hollows marked as habitat trees, numerous instances of recruitment trees being small and suppressed (with poor crown development) and excessive debris left around bases of habitat trees. No Yellow-bellied Glider feed trees were identified as being marked within 200m of two call detection sites, and an unidentified sap-feed tree was located in a logged area. This time there was no impenetrable understorey to use as an excuse.

A subsequent assessment of an area of 1.75 hectares in Doubleduke found that an average of 1.9 hollow-bearing trees, and 1.3 recruitment trees, per hectare had been marked for retention.

By the time the EPA investigated the area being logged without mark-up, two days after we went public, Forests NSW had apparently marked it up, though they issued a Warning Letter. NEFA attended a site inspection with the EPA where we identified many breaches, including habitat tree breaches. While the EPA commenced a failed prosecution for NEFA's, and others, complaints of logging the Endangered Ecological Community *Sub-tropical Coastal Floodplain Forest of the NSW North Coast bioregion,* they refused to investigate any of our other complaints.

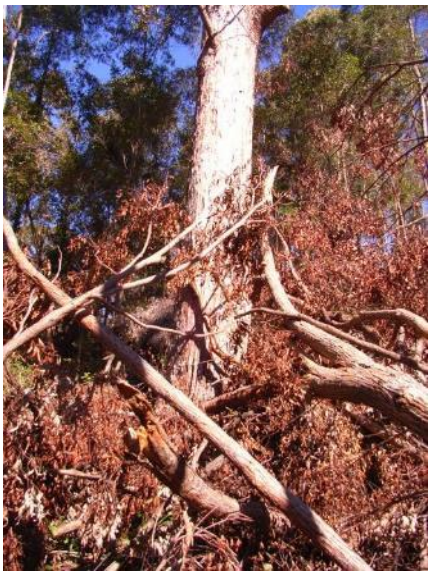
2.3. Girard State Forest

In August 2010 NEFA undertook a 'Preliminary Audit of Girard State Forest, compartments 44, 45, 46, 54, 55 and 56', across the logging area identifying numerous cases of inadequate retention and marking up of hollow-bearing and recruitment trees, inadequate selection of recruitment trees, and numerous trees with excessive debris left around them. A search of 200m buffers around a cluster of 5 Yellow-bellied Glider observation records failed to locate any trees marked as Yellow-bellied Glider feed trees.

A detailed audit was undertaken of 2.3ha of a 9ha logged stand of mapped oldgrowth forest within a 'FMZ 3B Special Prescription' area identified as part of the informal reserve system, where logging was allowed subject to protecting its special values. NEFA maintains that its special value was oldgrowth and thus it shouldn't have been logged. Within this area retention of 8 hollow-bearing trees and 5 recruitment trees per hectare was required, as well as all trees over 2 metres diameter. NEFA identified 13 marked hollow-bearing trees (5.7 per ha) and 10 marked recruitment trees (4.3 per ha), 15 of which had significant debris around their bases. Of the 10 recruitment trees 4 were small young trees, 7 were suppressed and one had major butt damage.


LEFT: 2.48 metre diameter Tallowwood With excessive debris left around it ready for burning. RIGHT: this 2m diameter Brush Box a tragic loss.

In a 3.7 ha area assessed for marking-up only three hollow-bearing trees and two recruitment trees were marked for retention, giving a marking rate of one hollow-bearing tree per 1.2 ha and one recruitment tree per 1.4ha. Of the 5 trees, 3 had large amounts of debris piled around them, one of the recruitment trees had significant butt damage and the other was suppressed.



Examples of Habitat and recruit trees with debris stacked against bases

The Office of Environment and Heritage (Lisa Corbyn, 25 August 2011) responded "*OEH can advise that Forests NSW have been issued with a formal Warning Letter in relation to the selection and marking of marked hollow-bearing and recruitment trees*". OEH identified a warning letter was given for "*a number of instances where trees marked as recruitment trees were suppressed or were*

not otherwise in accordance with TSL requirements", and "*OEH observed a number of instances where logging debris was within five metres and at a height greater than one metre of trees marked as habitat or recruitment trees … OEH has been actively encouraging Forests NSW to ensure operational staff are aware of minimising debris around marked retained hollow-bearing and recruitment trees across its operations*".

The response to our complaint about Forests NSW cutting down 6 trees above 2m diameter in contravention of a requirement identified in the harvest plan was dismissed as not being a legal requirement. In relation to the failure to mark sufficient habitat trees (hollow-bearing, recruitment and Yellow-bellied Glider feed trees) the responses were "*an adequate number of hollow-bearing and recruitment trees had been marked across the net harvest area*" (though no data was presented to substantiate this), and conversely they excused the lack of mark-up in many areas, claiming "*OEH identified that thick impenetrable vegetation was present within the harvest areas. Where such vegetation occurs, Forests NSW is not required to mark up trees, including hollow-bearing, recruitment and/or feed trees, due to occupational health and safety considerations*".

2.4. Royal Camp State Forest

In August 2012 we completed "NEFA Audit of Royal Camp State Forest". This forest had been heavily logged in the past, so there were very few hollow-bearing trees left. The general prescription for this area only required up to 10 hollow-bearing trees per two hectares, though the recently adopted prescription for the Brown Treecreeper added "*Where this density is not available, the existing hollow-bearing trees must be retained plus additional trees must be retained to meet the requirements of the ten per two hectares".* In addition, the prescriptions for the Swift Parrot, Regent Honeyeater and Black-chinned Honeyeater required retention of 10 eucalypt feed trees per 2ha.

NEFA made incidental observations of hollow-bearing trees that were logged, excessive debris left around habitat trees and recruitment trees that were suppressed, deformed or damaged. There was no doubt that all remaining hollow-bearing trees were required to be retained, and for each of these a recruitment tree. We documented (with photos and GPS localities) 10 hollow-bearing trees marked as recruitment trees. The apparent reason was to reduce the numbers of hollow-bearing trees recorded and thus the need to retain an additional recruitment tree for each. The simple maths is that if there are 10 hollow-bearing trees in 2 hectares they would need to retain an additional 10 mature trees as recruitment trees, but if they mark half the hollow-bearing trees as recruitment trees they can log the 10 mature trees. And this is what they were doing.

Royal Camp: some of the trees with obvious hollows marked as recruitment trees, so as to reduce the need to retain one recruitment tree for each hollow-bearing tree.

NEFA found that in a one 5 hectare area, only one tree was marked for retention as a recruitment tree. In another 2.3ha sample to assess tree retention from a randomly chosen multi-aged part of the stand, only 4 out of the 11 required hollow-bearing trees were marked and retained and only 5 out of the 11 required recruitment trees were marked and retained, none of the 11 required trees were marked as eucalypt feed trees. Of the total of 16 trees removed that were over 40 cm dbh (diameter at breast height) and thus likely to have been mature, late-mature or senescent, at least 11 should have been retained as hollow-bearing or recruitment trees and should not have been logged.

NEFA also documented a failure to identify an obvious Yellow-bellied Glider Sap-feed tree, which had been logged, and to retain and mark the required 15 feed trees around the sap-feed tree, as well as within 200m of a call-detection record that was heavily logged.

Royal Camp, Yellow-bellied Glider sap-feed tree felled for timber, note the distinctive V notches.

In response to our complaint the EPA (Steve Hartley, 15 August 2013) identified they assessed an area of 8.4 hectares in compartment 15 within which the Threatened Species licence required around 42 hollow-bearing (H) trees and 42 recruitment (R) trees to be marked for such an area, along with 42 Eucalypt Feed Trees (the later which can count as H and R trees). The TSL thus required that at a minimum 84 H and R trees should have been assessed, identified and marked for retention as fauna habitat before logging commenced. The EPA note they only found 2 hollow bearing trees (H) and 3 recruitment trees (R) that had been marked, though also observing they did find *"an additional 13 mature Grey Ironbark (Eucalyptus paniculata) in the area assessed which were considered to meet the Eucalypt feed tree definition. These trees were not however marked".* The Forestry Corporation thus marked for retention less than 6% of the required trees, and had logged most of those they were legally required to retain. The EPA just sent the Forestry Corporation an Official Caution for the failure to identify and protect habitat trees.

The EPA acknowledged they were shown some of the hollow-bearing trees marked as recruitment (R) trees, simply commenting *"the EPA considers that recruitment trees can have hollows",* while ignoring our complaint that the recruitment trees should have been marked in addition to the hollow-bearing trees rather than instead of them.

They did not investigate our complaint about inappropriate (small, suppressed, damaged) trees being selected as recruitment trees, commenting "*Part of EPA compliance priorities to improve*

selection of Recruitment trees". On a site inspection the EPA were shown an unmarked hollow-bearing tree and a marked recruitment tree with debris left stacked around them, which NEFA had included in our audit report with photos and GPS localities, only to have the EPA later claim *"Officers could not locate the alleged location, no GPS data was provided"* and "*The EPA searched the area described and did not identify any H or R trees with excessive debris"*. In one case the EPA even photographed the breach and recorded its GPS locality while with NEFA. Following our complaint the EPA later claimed this was an error on their behalf.


Photos of hollow-bearing tree marked as a recruitment tree, and recruitment tree with debris around base in Royal Camp SF shown to the EPA, who later claimed they were unable to find them.

At Royal Camp the EPA failed to inspect the locations of 4 hollow-bearing trees that had been felled and reported by NEFA (with GPS localities). In these areas there were very few hollow-bearing trees and all should have been retained.


One of 4 felled hollow-bearing trees at Royal Camp SF reported to EPA but subsequently ignored. These hollows would have been readily observable from the ground. None of the tree was utilised and it appeared to have been felled to get rid of it.

In response to NEFA's 2011 complaint about Forests NSW dropping a tree on an identified Yellow-bellied Glider sap-feed tree in Wedding Bells State Forest, the EPA responded they were making the *"marking and protection of yellow-bellied glider sap feed trees as one of its priorities"*. This was received by NEFA just before we reported the logging of the Yellow-bellied Glider sap-feed tree in Royal Camp SF. On a site inspection we took the EPA to the felled tree, along with a fauna expert who explained to them in detail what it was. Despite this the EPA refused to investigate the breach, claiming they " *could not determine beyond reasonable doubt whether the incisions had been made by a yellow bellied glider. As such no regulatory action was taken"*. Following our complaints the EPA later accepted the expert evidence and admitted it was a breach, but still refused to do anything about it stating they *"will monitor this aspect in future"*.

When NEFA complained about the Forestry Corporation's failure to protect sap-feed trees at Royal Camp SF the requirement was that " *All Yellow-bellied Glider and Squirrel Glider sap feed trees must be retained*" and that damage of retained trees "*must be minimised to the greatest extent practicable during harvesting operations*". After Royal Camp the EPA then surreptitiously (by changing numbering) implemented changes to the Threatened Species Licence in March 2013 that effectively removed Yellow-bellied Glider sap-feed and feed trees from the requirement that damage of retained trees "*must be minimised to the greatest extent practicable during harvesting operations*". So while there were still requirements to identify and mark Yellow-bellied Glider sap-feed trees, there was no longer any requirement to protect them.

2.5. Koreelah State Forest:

NEFA undertook a brief inspection of Koreelah SF on 10 May 2013 to reconnoitre for a proposed audit. we were dismayed to find that about 6 hectares of what had apparently been a magnificent stand of oldgrowth Brush Box forest had been trashed. The stand was dominated by Brush Box, Tallowwood and Blue Gum trees from 1m to over 2m diameter and over 40m tall, proving that they were many hundreds of years old. It had a well developed rainforest attributes. Most of the surrounding forest we saw was young regrowth that had been subjected to Timber Stand Improvement to cull the oldgrowth trees.

In the midst of this oldgrowth stand, and surrounded by a well developed rainforest understorey, a Brush Box being engulfed by a stangler fig was counted as a Hollow-bearing tree while another was cut down.

On 12 May 2013 NEFA wrote to Mr Nick Roberts, Chief Executive Officer, Forestry Corporation of NSW, asking him to take action to stop the apparent blatant disregard for environmental laws and threatening processes continuing:

> *As at Royal Camp, most of the forest is young with few hollow-bearing trees, interspersed with patchy stands of "disturbed oldgrowth", mostly dominated by Brush Box, Tallowwood and Blue Gum hundreds of years old, with relatively high densities of hollow-bearing trees. The TSL requires that most, if not all, of these ancient trees be retained when densities are averaged across the stand. Regrettably many of these trees are being felled in contravention of the TSL.*

On the 15 May 2013 Nick Roberts responded that retention requirements for hollow-beating trees (HBTs) had been met, claiming that:

> *The intent of the TSL is not to retain HBTs in aggregated clusters to offset lower occurrences elsewhere in the harvesting area. The subject area is classified as 'Regrowth Zone', meaning HBTs meeting the provisions of the TSL must be retained, where they exist, at the rate of up to five per hectare. ...*

Most tree retention prescriptions are set "per 2 hectares" within the net logging area, which both EPA and Forestry Corporation had taken in the past to mean that this is the average density needed to be retained across the whole of the logging area. When NEFA complained about inadequate retention in two areas in Girard SF, including a 3.7 ha area where only three hollow-bearing trees and two recruitment trees had been marked for retention, the EPA responded that tree retention *"must be assessed over the whole net harvestable area of the tract, not just a component".* Similarly at Royal Camp SF, in response to the EPA's claim that the Forestry Corporation had only marked 2 hollow bearing trees and 3 recruitment trees across an area of 8.4 hectares, the Forestry Corporation maintained there had been no breach because across *"the 751 hectares of the net harvest area ... sufficient trees were marked and retained".*

So, on the one hand the Forestry Corporation claimed they can offset inadequate habitat tree retention over large parts of a logging area by retaining higher numbers in one part of a stand, and on the other hand they maintain they don't need to increase tree retention in one part of a stand to offset deficiencies elsewhere.

NEFA's June 2013 'Koreelah State Forest Audit' focussed on the stand of logged oldgrowth forest, identifying 6 hectares of tall oldgrowth Brush Box forest which had previously been subject to negligible disturbance, though as it hadn't been mapped as High Conservation Value Old Growth it wasn't protected by the logging rules.

NEFA's transect through the trashed oldgrowth identified an extremely high density of 49 giant trees per hectare over 80 cm diameter (dbh) of which 38 had been logged, including the two largest on the transect, with one stump measured with a diameter of 235 cm, and the largest retained tree just 174 cm diameter. This was contrary to the requirement to select hollow-bearing trees from the cohort of trees with the largest dbh. Of the 5 largest trees on the transect, three had been logged, though if this was applied across the whole logging area there is no doubt all the oldgrowth trees within this stand would have been required to be selected as belonging to the largest cohort.

On the transect two of the trees retained had extensive butt damage and were unlikely to survive for long, while many of those logged had no pre-existing damage. One of the trees had excessive

debris left around it. Overall the basal area removal was 75%, when the maximum allowable was 40%.

This defective Brush Box (left) with a diameter of 174 cm was retained, while next to it a giant Brush Box with a diameter of 235 cm (right - the largest tree on the transect), and no butt damage, was felled.

The EPA (Gary Whytcross, 18 November 2013) noted *"the large brushbox trees identified by NEFA … should have been retained. These brushbox trees were unique and should have been considered in the context of meeting hollow-bearing and recruitment tree requirements"*. The EPA recognised that across the whole logging area *"that forest stand structure varied significantly … ranging from typical regrowth to multi aged stands",* considering that on average from their 6.3 ha of transects across the rest of the logging area that sufficient hollow-bearing and recruitment trees had been retained, without acknowledging that most of their other hollow-bearing trees would have been far smaller than those in the oldgrowth stand. The EPA did send an Advisory Letter for two giant Brush Box stumps NEFA identified because the EPA considered they "*were larger than the size of the trees retained in that area"*, which they considered "*should have been retained. Their removal was not in keeping with the intent of the TSL tree retention provisions",* though did not count this as a legal breach.

Similarly, regarding the excessive removal of basal area in the oldgrowth stand the EPA "*agrees*" that logging operations "*were of high intensity*", but considered "*this was not representative of logging across the rest of the net harvest area*", so did nothing about it. The only legal regulatory action taken was another ineffective Advisory Letter for poor selection of a recruitment tree and excessive debris left around a hollow-bearing tree identified by NEFA (it beggars belief that they couldn't identify any for themselves).

The Forestry Corporation was lucky the EPA did not abide by the advice of their Chief Executive Officer, Nick Roberts, to consider the impacts on a hectare basis and instead used sites in other areas to average away the egregious breaches of logging constraints within the oldgrowth forest. Though NEFA still considers that most of the big trees in the oldgrowth stand needed to be retained as hollow-bearing and recruitment trees because they belonged to the largest cohorts of trees across the whole forest.

2.6. Cherry Tree State Forest

NEFA first visited Cherry Tree SF on 8 March 2015, soon after logging commenced, and identified numerous breaches. NEFA complained to the Environment Minister, the EPA and the Forestry Corporation that retained habitat trees were suppressed, damaged, had debris placed around them, and did not appear to satisfy retention requirements. We hoped that by highlighting the obvious problems up-front that those responsible may make some attempt to fix them. To our disappointment our second visit on the 24 August revealed that these problems were ongoing and that there was no apparent improvement.

To our chagrin the EPA undertook a token audit, after a Forestry Corporation clean-up, and maintained there were no problems with habitat tree retention or protection. It was clear to us that unless we did a more comprehensive assessment that the travesty would just continue. With NEFA's November 2015 'Audit of Cherry Tree State Forest, Compartments 359, 360 & 361' we spent extra time documenting breaches of habitat trees in an effort to document the scale of the breaches and force the EPA to take appropriate regulatory action to stop them being repeated.

NEFA focussed on undertaking a systematic audit of damage to marked habitat trees over a total of 50 hectares. In this 14% of the logging area we identified 33 hollow-bearing trees and 41 recruitment trees that had significant butt and trunk damage from being hit by machinery or falling trees. Extrapolating this across the total logged area indicated 235 hollow-bearing trees and 292 recruitment trees suffered significant damage from the logging operation. This is a lot of habitat trees when repeated across other logging operations and in repeated logging operations.

Cherry Tree 2015. LEFT: Marked hollow-bearing tree with crown broken off by falling tree, RIGHT: Marked hollow-bearing tree with butt and root damage from machinery.

LEFT: Marked recruitment tree with crown broken off by falling tree, RIGHT: Marked recruitment tree with butt damage from machinery.

Across the same area we identified 47 hollow-bearing trees and 48 recruitment trees which had significant debris left around their bases (31 of which had also been damaged). Extrapolating this across the total logged area indicates 335 hollow-bearing trees and 342 recruitment trees had significant debris left around their bases, increasing their risk of being damaged or burnt out in a fire.

Hollow-bearing trees with debris

Recruitment trees with debris

In compartments 359 and 361 of Cherry Tree State Forest the Forestry Corporation were required to retain 8 hollow-bearing (H) trees and 5 recruitment (R) trees per hectare. NEFA assessed every tree within a 3.3 ha sample finding marked habitat tree retention was 4.5 H trees/ha and 3.9 R trees/ha. NEFA found 3 marked R trees had hollows, further noting:

> *Similarly it is evident that the required numbers of R trees were not retained, and that most marked trees did not satisfy retention requirements. There were abundant stumps in the size range 50-100cm from logging, making it evident that most (if not all) of the largest cohorts of trees that should have been retained as R trees were logged. Only 5 of the marked R trees were accepted as reasonable choices, though these were still small trees and did not belong to the largest cohort of trees as evidenced by stumps. This is a retention rate of only 1.5 R trees per hectare. When considered with the significant logging damage to retained trees, the outcome is extremely bad.*

In Cherry Tree State Forest NEFA identified 12 Yellow-bellied Glider sap-feed trees, 6 of which were assessed by an expert to show both old and recent use by Yellow-bellied Gliders, were considered to have been used recently and were likely to have been in usage at the time of logging**.** Of the 6 trees actively being used, none were marked as feed trees, 2 had suffered significant canopy damage during the logging operation and two others had suffered damage to their trunks. One had excessive debris around its base.

When the EPA (Michael Hood 21 December 2016) provided their "final" response to our Cherry Tree audit they deferred consideration of our complaints regarding roading and logging in the EEC Lowland Rainforest and damage to habitat trees. They thereafter told us they were considering legal action, and even requested high resolution images of all the habitat tree breaches we had identified. They strung us along for almost a year before telling us (Michael Hood,1 December 2017) that they

would take no regulatory action at all on the spurious grounds that they couldn't prove that the Forestry Corporation caused the damage, or that indeed someone else may have sneaked in there while logging was underway (presumably with a bulldozer and chainsaw) and caused the damage:

> *Inspections conducted by EPA officers identified 22 trees with crown damage, 51 trees with butt damage and 49 trees that appeared to have debris greater than one metre in height within a five metre radius. These observations were subsequently the subject of further investigations.*
>
> *Although it is likely the damage to the trees and the debris were as a result of harvesting operations, the EPA would be required to prove beyond reasonable doubt that each individual instance of damage or debris was as a result of an action by those undertaking the harvesting operation. The investigation was unable to obtain evidence that would rebut a defence that the damage was caused by some other means.*

Having spent many days auditing the operation and documenting trees that had been obviously damaged during logging NEFA considers that it is easy to identify the cause of the damage from machinery tracks, locations of tree stumps and the position of cut off tree heads, Given that drainage works are implemented after each area is logged it was not possible for another person (as the EPA suggested to me) to sneak in there later, and the proposition that someone could operate in there unnoticed while logging is underway is preposterous.

In the EPA's response (Michael Hood 21 December 2016) they identify they assessed 21 hectares and found retention of recruitment trees adequate (without discounting R trees that did not satisfy retention requirements) but that only 6.8 hollow-bearing trees per hectare were retained, rather than the 8 required. They then averaged their data with Forestry Corporation claims of a retention rate of 7.5 H trees/ha in their sample area, to come up with 6.95 H trees/ha, while ignoring NEFA's findings of only 4.5 H trees/ha. The EPA identify:

> *Based on extrapolation, if the retention rate trend was maintained across the rest of compartment 359 (i.e. across the remaining 230 hectares) there would be a shortfall of hollow bearing tree of approximately* ***172 trees or approximately 0.75 hollow bearing trees per hectare****.*

Even with the addition of the Forestry Corporation data, this suggests a shortfall of 232 hollow-bearing trees across both compartments 359 and 361. Despite finding a significant shortfall in the required retention of hollow-bearing trees, the EPA only issued an Official Caution.

In relation to Yellow-bellied Glider, the EPA's response (Michael Hood 21 December 2016) states:

> *The EPA located the trees reported by NEFA. The EPA agrees that all are yellow bellied glider feed trees. Of the* [12] *trees reported the EPA notes that there are a number of occluded v notch incisions. These with occluded v notches do not qualify as a 'sap feed tree' under the threatened species licence. Despite this, it is good forestry management to retain these trees. The EPA also located active v notches with evidence of running sap on* [7] *trees. Due to the timing of the inspection undertaken by the EPA it cannot be determined whether these trees were 'active' at that time of compartment mark-up and operations. As such it cannot be determined whether the requirements of the TSL were to be implemented at that time. The EPA did not inspect areas directly surrounding the glider trees to determine retention rates of equivalent species.*

This requirement that trees with evident long-term use as Yellow-bellied Glider sap-feed trees have to be observed to have been actively used at the time of logging was a new low, making the prescription totally ineffective.

2.7. Sugarloaf State Forest

Soon after our Cherry Tree audit, NEFA undertook the 'NEFA Preliminary Audit Sugarloaf State Forest, Compartments 380, 381 & 382' in October 2016 in a nearby forest. As part of this we undertook a rapid systematic audit of 37ha documenting 25 hollow-bearing trees (H) and 26 marked recruitment (R) trees that had been damaged, 4 hollow bearing trees that had been logged, and excessive debris left around 6 H trees and 10 R trees. 32 marked recruitment (R) trees were considered to not satisfy the selection criteria, 12 because they had apparent hollows and should have been identified as H trees, with the remaining 20 being suppressed, or having pre-existing damage or being far too small.

There was a remarkable consistency between our findings from Cherry Tree and Sugarloaf State Forests as in both areas we recorded a logging damage (to butt, trunk and canopy) rate of 1.5 habitat trees per hectare (with half these H trees and half R trees). This demonstrated that nothing had changed since we had reported the Cherry Tree breaches because there were no consequences.

By extrapolation, we identified across the logged area over 160 hollow-bearing trees (marked and unmarked) and 145 recruitment trees were likely to have been physically damaged, 178 recruitment trees likely to have been inappropriately selected, with excessive debris left around 85 habitat trees.

In one case a forester had wrongly marked a large old hollow-bearing Spotted Gum (110cm dbh) "Have A Go," despite all hollow-bearing trees in the vicinity needing to be retained. The loggers 'had a go' and it was felled onto a marked hollow-bearing tree, then rather than cleaning up the mess a forester cancelled its designation as a hollow-bearing tree and then wrongly marked another in an exclusion zone as its replacement.

In Sugarloaf SF a large hollow-bearing tree marked "Have a go" was felled onto a marked H tree, causing significant damage, and another tree in an exclusion zone was marked for retention as a replacement.

In another case the Forestry Corporation recklessly caused significant damage to an identified Yellow-bellied Glider sap-feed tree by driving over its roots and bashing its trunk, which was likely to

result in its death. This time they did mark some of the required feed trees in its vicinity, of the nine located three suffered logging damage, one was suppressed and one had excessive debris.

Sugarloaf SF, LEFT: Yellow-bellied Glider sap-feed tree mortally damaged. RIGHT: one of the 3 Yellow-bellied Gilder feed trees damaged in logging.

Despite this being a repeat of the nearby Cherry Tree breaches, the EPA (Bryce Gorham 19 October 2018) issued an Official Warning letter for:

- Damage to 17 hollow-bearing (H) trees
- Inappropriate selection of a H tree - had no hollows
- 2 hollow-bearing (H) trees with excessive debris
- 20 marked Recruitment (R) trees with damage to butt and or crown
- 26 R trees failing to meet selection requirements
- 4 R trees with excessive debris

While this was another meaningless warning, it is revealing that this time the EPA didn't hide behind the pretence that someone else may have caused the damage. Though Formal Warnings continued to be useless in changing behaviour as the Forestry Corporation's reckless damage to habitat trees continued unabated.

The EPA issued an Official Caution for failure to retain the required numbers of hollow-bearing trees (determined with Forestry Corporation data), noting *"Evidence was recorded of unmarked hollow-bearing trees either being felled or damaged within Cpt. 380"*. In response to our questions the EPA clarified "*Within Compartment 380, the EPA determined that FCNSW were required to retain 8 Hollow bearing trees/ha. An analysis of that compartment found that FCNSW had retained 6 Hollow bearing trees /ha. During investigations additional trees were identified in the field that could have been marked for retention as Hollow bearing trees*". This equates to a shortfall of 218 hollow-bearing trees across the logging area.

Regarding the damage to the Yellow-bellied Glider sap-feed tree and feed trees the EPA responded "*there is no requirement to protect YBG sap-feed trees* [and YBG feed trees] *under UNE TSL*".

2.8. Giberagee State Forest

NEFA undertook a 'Preliminary Audit of the Endangered Narrow-leaf Melichrus in Gibberagee SF' in February 2017 and a 'Preliminary Audit of Gibberagee SF in March 2017. The first time making incidental records of seven marked recruitment (R) habitat trees with obvious hollows or evident crown senescence indicating the presence of hollows, meaning that they should have been retained as hollow-bearing trees, with additional trees retained as recruitment trees. The second time 19 marked habitat trees were identified that had been damaged, with excessive debris around two, and seven marked recruitment (R) trees that failed to satisfy the selection criteria.

In response to NEFA's February and March 2017 audits of Gibberagee State Forest the EPA (Michael Hood 30 January 2019) issued a Formal Warning for breaches relating to the selection of retained recruitment trees, noting:

> *1. The EPA has reasonable grounds to believe that the selection of recruitment trees failed to satisfy the retained tree selection requirements, and this is non-compliance with conditions …of the UNE TSL.*

NEFA undertook a brief follow up audit of Gibberagee SF in October 2017 that identified that breaches of marked hollow-bearing (H) and Recruitment trees(R) trees were continuing unabated. Incidental observations over a small area identified one H tree was suppressed and had no hollows and four R trees that were considered to be inappropriate choices because they were suppressed.

In relation to our complaints of poor selection of recruitment trees, the EPA (Bryce Gorham 10 April 2019) responded:

> *The EPA found that FCNSW had selected 3 recruitment trees that appeared to be suppressed and has pre-existing damage. The EPA believes these trees did not meet the characteristics mandated by the TSL.*

In both cases the EPA claimed they wouldn't take further action, stating (EPA 10 April 2019):

> *However, the EPA does not believe that it would be possible to establish FCNSW did not attempt to choose trees that fit criteria … Therefore, the EPA would be unable to prove beyond reasonable doubt that FCNSW had breached the TSL. The most appropriate regulatory response to this issue was considered to be a Formal Warning.*

In NEFA's audit of another part of Gibberagee State Forest in February 2019 we assessed a 5.5ha area marked up for logging in an effort to avert damage to habitat trees. finding:

> *the legal requirement was to retain up to 28 hollow-bearing (H) trees and 28 recruitment trees, yet the Forestry Corporation have only marked for retention 16 hollow-bearing trees and 15 recruitment trees, 55% of those needed, despite adequate numbers being available to fully satisfy requirements. They have also rorted selection requirements by selecting hollow-bearing trees and defective and suppressed trees as recruitment trees.*

It took days before the EPA investigated our complaints, and by then the Forestry Corporation had remarked obvious hollow-bearing trees originally marked as Recruitment (R) trees as Hollow-bearing (H) trees.

Gibberagee SF 2019, examples of FCNSW remarking of obvious hollow-bearing trees originally marked as R trees as H trees, as a result of NEFA's complaint but before being inspected by the EPA - confirmation of FCNSW's illegal tree marking.

In response to NEFA's February and March 2017 complaints about damage to habitat trees the EPA (Michael Hood 30 January 2019) identified "*The EPA also had reasonable grounds to believe that there were at least 23 instances where retained hollow-bearing and recruitment trees sustained unnecessary damage",* issuing a Formal Warning for breaches relating to the protection of retained hollow-bearing and recruitment trees, and giving as their excuse for not taking more meaningful action:

> *However, it was not possible for the EPA to establish if the damage exceeded that of being "minimised to the greatest extent practicable"*

NEFA's brief follow up audit in October 2017 identified that damage to habitat trees was continuing unabated. Incidental observations over a small area identified 3 habitat trees with physical damage to their trunks, 13 instances of significant machinery disturbance to the soil and roots around their bases, and 6 trees with excessive debris. The EPA did not accept that the damage we reported was significant.

Gibberagee: Recruitment Trees with tracks constructed over roots within 5 metres and damage to trunks, considered insignificant by EPA.