

Brief Audit of Wild Cattle Creek

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On the afternoon of 28 July 2020 NEFA undertook a brief audit of Compartments 32, 33 and 34 of Wild Cattle Creek State Forest near Cascade on the Dorrigo plateau to assess compliance with the new Coastal Integrated Forestry Operations Approval (CIFOA) logging prescriptions.

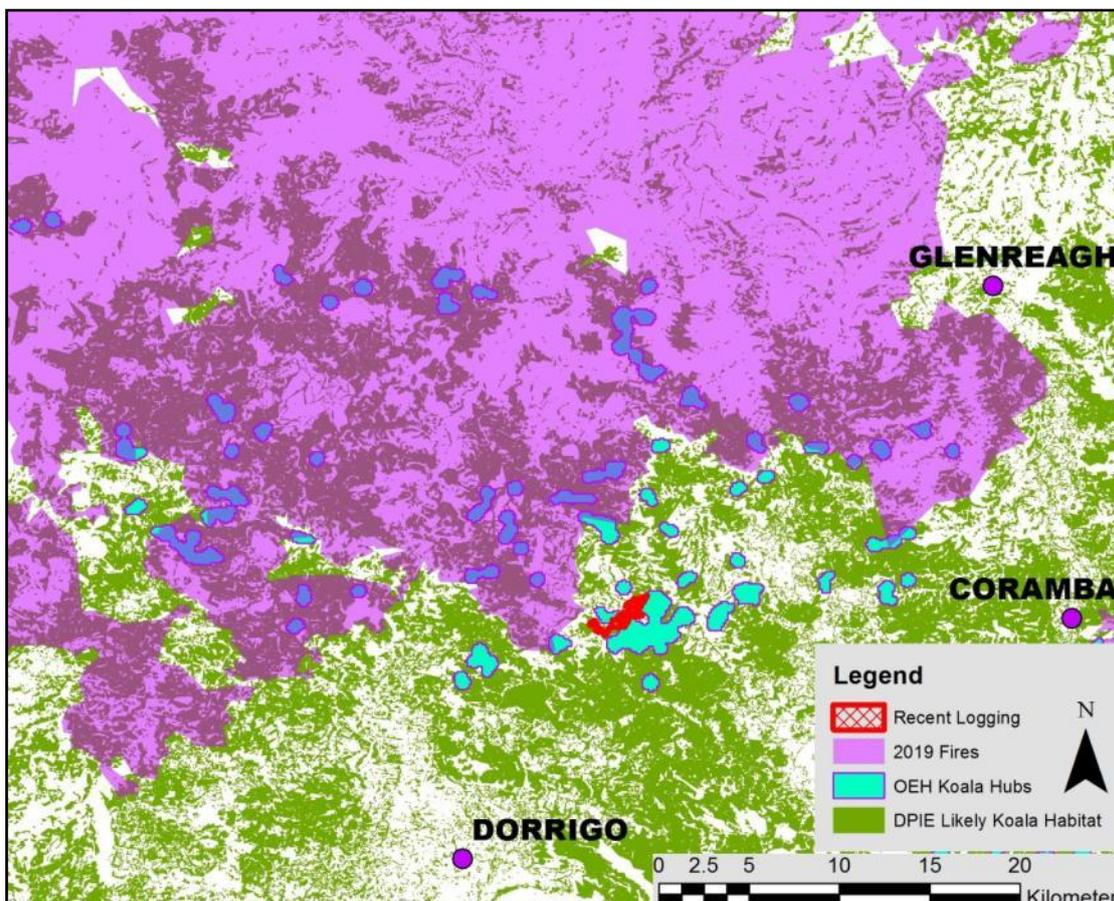
The EPA had found significant logging breaches on 9 July and imposed a Stop Work Order on 18 July, allowing illegal logging to continue for 9 days.

The legal breaches we found from a brief inspection of a small part of the logging area were:

- 2 'giant trees' felled
- 4 giant 'hollow-bearing trees' damaged by machinery and tree felling
- 6 marked small tallowwood Koala Feed Trees significantly damaged

These show that breaches are more widespread and significant than identified by the EPA.

These forests contain significant numbers of massive Sydney Blue Gums and Tallowwoods hundreds of years old, making them of exceptional importance for the many fauna species dependent upon large hollows for denning and nesting. These species are also key Koala feed trees, with the logging areas identified as high quality Koala habitat, partially within and adjacent to the largest Koala Hub (resident population) identified on the Dorrigo Plateau.



Affects of 2019 wildfires (purple overlay) on DPIE 'Likely Koala Habitat' (green) and OEH 'Koala Hubs' (aqua) on Dorrigo Plateau, in relation to recent logging (red) of the largest Koala Hub on the plateau.'

The importance of the forests for Koalas has been identified by DPIE's 2019 Koala Habitat Suitability Model identifying most of the logging areas as Classes 4&5: '*highly suitable koala habitat ... likely to be occupied by koalas*'

In 2017 the Office of Environment and Heritage identified these forests as being within and adjacent to the largest Koala Hub on the Dorrigo Plateau: "*areas of currently known significant koala occupancy that indicate clusters of resident populations*".

In 2019 DPIE acknowledged the significance of these forests by identifying them as part of the Wild Cattle Creek Koala Focus Area, part of the 10 priority areas of State Forests that could be protected as part of the Great Koala National Park to "*provide a feasible and strategic balance between increasing protections for koalas, while minimising impact to forestry operations*", The priority areas total 55,000 ha out of the 175,000 ha of State Forest proposed for protection by the National Parks Association.

Given the widespread burning of Koala habitat to the north and west last year, and the decimation of Koalas within burnt forests, the outstanding importance of these forests for Koalas has only increased.

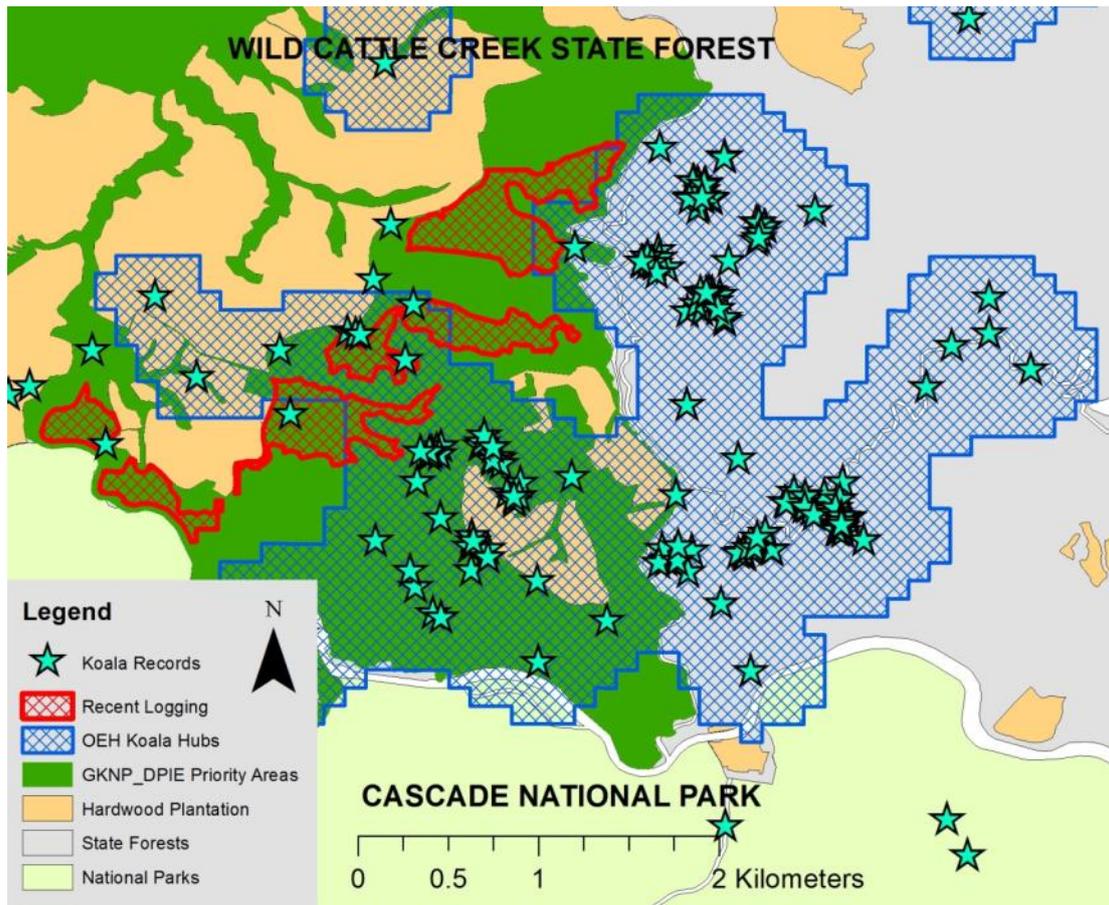
When NSW Premier Gladys Berejiklian announced the NSW Government's Koala Strategy on 7th May 2018 their press release claimed '*The centrepiece of the NSW Koala Strategy is setting aside large swathes of land where koalas can thrive and new habitats can be created*', with Environment Minister Gabrielle Upton stating:

It is absolutely vital that we protect land where koalas currently live - and secure land where new koala colonies may exist in the future.

The NSW Government should never have allowed these forests to be logged. The Forestry Corporation should not be allowed to get away with so blatantly flouting the new logging rules in important Koala habitat. This is one of the first tests of the Government's new logging rules and therefore a test of whether they are enforceable and whether the Government is willing to do so.



Adjacent claimed hardwood "plantation", no refuge for Koalas here.



The logging areas occur on the edge of the largest patch of Koala Hubs (*clusters of resident populations*) on the Dorrigo Plateau. They are within the DPIE 2019 Wild Cattle Creek Koala Focus Area recommended as part of the Great Koala National Park. The exclusion of the eastern part of this Koala Hub from the Government's mini Great Koala National Park is testimony to the obvious failings of their pared back reserve areas.

On the 18 July 2020 the EPA issued a 40 day Stop Work Order on Forestry Corporation logging of these compartments after their finding of 2 giant trees >140 cm cut down. While NEFA welcomes the EPA's first imposition of a Stop Work Order, we consider it unacceptable that the EPA waited 9 days after finding the breaches on 9 July until logging was virtually complete before stopping work as many more breaches are likely to have occurred in the intervening period.



EPA photos of 2 Giant Trees they found cut down - neither matches the 2 we found.

NEFA have been waiting over a year and a half for the EPA to take action in relation to other serious breaches in Wild Cattle Creek State Forest, yet they still won't tell us what breaches they found or what action they are taking.

While the EPA dither the Forestry Corporation continue their illegal logging in the expectation that they will get away with it, as they usually do.

The Coastal Integrated Forestry Operations Approval (CIFOA) requires the retention of all Giant Trees (>140 cm diameter at stump height), 8 Hollow-bearing Trees per hectare, and (across most of the area) 10 small Koala feed trees per hectare.

The CIFOA 'Protocol 23.3 Protection of retained trees' requires:

1. **Retained trees** must not be **damaged** during a **forestry operation**.
2. If a **retained tree** is **damaged** during **forestry operations**, **FCNSW** must replace it with a **comparable tree**.
3. Where a **comparable tree** is not available, **FCNSW** must retain a **mature tree** with a healthy crown that is not **damaged**.
4. **FCNSW** must ensure that each **retained tree** does not have **harvesting debris** accumulated within five metres of its base.
5. Where debris has accumulated around a **retained tree**, as described in condition 23.3(4) above, **FCNSW** must:
 - (a) remove the **harvesting debris** from areas within five metres of the base of the **retained tree**; or
 - (b) flatten the **harvesting debris** so it is less than one metre in height.

Damage is defined as:

*In the context of a **retained tree**, means the tree's longevity or suitability to fulfil the purpose for which it has been retained under the **approval** has been compromised, including where a tree is intentionally felled, pushed or removed to comply with the **WHS Act**.*

A significant level of damage to trees identified for retention was observed, with some cut down, extensive machinery damage to tree roots and butts, and damage to tree crowns and trunks caused by trees being felled onto them. The internal damage caused by trees being bashed is often more severe than what is visible, and the underground damage to roots and soil compaction is mostly not visible. . Even where the trees are not killed, such damage greatly increases the trees' vulnerability to disease, termites, fires and wind-throw, significantly increasing the probability of an early death.

It was devastating to see magnificent tall ancient trees, many hundreds of years old, over a metre or two diameter and 40-50m tall, wantonly and recklessly damaged, particularly as they are irreplaceable - once those left die it will take hundreds of years for replacements to grow, and the animals that will already be competing for the limited hollows will have nowhere left to go.



NSW management of exceptional Koala habitat - how can they survive?

Giant Trees

The IFOA Conditions (64.2) require the permanent protection of "all ***giant trees***".

NEFA located 2 Giant Trees that had been felled, with one left where it fell with no log removed. There were other stumps just under the size limit. 'Giant Trees' "means a live tree with a ***diameter at stump height over bark (DSHOB)*** of 140 centimetres or greater", with stump height "measured at 30 centimetres above the ground (on the upslope of the tree)".



Giant Sydney Blue Gums found felled, neither of which appear to match the photos released by the EPA. TOP and LEFT: This giant Blue Gum had a Diameter at Stump Height of 152.5 cm (measured with a DBH tape), the tree had been left where it felled (6656469, 478800). RIGHT: This giant Blue Gum had a Diameter at Stump Height of 149.5 cm (6656468, 478695).

The Remake of the Coastal Integrated Forestry Operations Approvals Final Report Threatened Species Expert Panel Review reports the EPA representative Brian Tolhurst as stating:

All trees greater than or equal to 100 cm dbh should be retained and protected as a matter of urgency. Not only do these provide the best opportunity to develop the large hollows required by many species they also provide more flowers, fruit, nectar and seed along with nesting opportunities for large birds such as raptors. At this stage of the harvesting cycles

across coastal NSW all remaining large trees are part of a limited resource and are critical for many threatened species and populations to survive. There is known clear deficit of hollow bearing trees in the forested coastal landscapes of NSW.

Towards the end of their negotiations over the CIFOA the EPA were holding out for a "*Minimum 135 centimetres blackbutt, Minimum 120 centimetres all other species*". The NRC (2016) again sided with the Forestry Corporation and over-rode the EPA.

Most devastating has been removal of the requirement to protect 'recruitment' hollow bearing trees. The old IFOA required the protection of one of the next largest trees for each hollow-bearing tree so that it could be available (with developing hollows) to replace the hollow-bearing tree when it inevitably dies. The new CIFOA no longer requires the protection of recruitment trees. These forests were last logged in 2006, and the Forestry Corporation is taking advantage of the new logging rules by removing those old trees that were then required to be retained as recruitment trees, many over a metre diameter and hundreds of years old.

In general this audit shows that the EPA's attempts to offset the consequences of their removing protection for 'recruitment trees' by requiring the retention of some recruitment trees as 'giant trees' as a sham. There are few trees >140 cm dbh that don't already have hollows and thus require protection as hollow-bearing trees. As intended the requirement to protect Giant Trees (that don't have hollows) only covers a few of the oldest recruitment trees. And in this operation it appears that none were protected in practice.

This is a disgrace as the loss of recruitment trees means the forest is increasingly dominated by magnificent large old hollow-bearing trees 300-600 years old that are nearing the end of their lifespans, with their deaths hastened by logging damage. The small regrowth trees left behind will take centuries to grow old enough to provide the vital large hollows when those remaining die.

The NSW Government should be ashamed of themselves for removing protection for most of these centuries old trees, many of which predate European settlement of Australia.



Hollow-bearing Trees

The IFOA Conditions (64.2) require "a minimum of eight ***hollow-bearing trees*** per hectare of ***net harvest area***".



Typical logging area (where not covered by debris), showing bashing of potential future sawlog (Blue Gum on right in foreground) and clearing around two oldgrowth trees in background, with both trees damaged in the process. Often where walking tracks lead to large old trees raised platforms are constructed to stop compaction of soils around roots by people walking. While the old IFOA attempted to protect 5m around retained trees, the new CIFOA now encourages driving heavy machinery and clearing around retained trees. They are wantonly damaging these irreplaceable and vital trees.

Logging significantly increases tree mortality. After logging the retained trees are more vulnerable to windthrow and post-logging burning. In Mountain Ash and Alpine Ash forests Gibbons and Lindenmayer (2002) identify that 18% of the total population of hollow-bearing trees collapsed over a 5 year period (3.6% per annum). Gibbons and Lindenmayer (2002) also report that "14% and 37% of trees retained on logged sites were killed 2-5 years after low- and high-intensity slash burning respectively", and that the probability of a retained tree surviving after a single logging event was 0.63. This problem is also recognised by the NSW Scientific Committee (2007):

Trees retained during harvest are susceptible to damage from logging operations and post-harvest burning, or can suffer poor health owing to changes in abiotic conditions (Gibbons and Lindenmayer 2002). Consequently, retained trees are prone to early mortality, especially with repeated exposure to harvesting events over their lifespan.

The Threatened Species Licence (5.6 (h)) attached to the previous IFOA required that damage to retained habitat trees must 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.

NEFA often found that trees required to be retained and protected were illegally damaged during logging, though the EPA refuse to do anything about it. For example, NEFA found that 22% of retained trees were illegally damaged by being sideswiped by machinery or carried logs, or by having trees dropped on them, in Cherry Tree SF in 2015. The EPA repeatedly said they would take legal action after their inspection confirmed our complaint, though in the end they did nothing at all on the spurious grounds that they couldn't prove forestry had caused the damage. They seriously claimed that somebody else with a chainsaw and bulldozer could have caused the proven widespread damage, while also not being seen.

Now they have weakened protection further by removing the need to protect ground and understorey within 5m of retained trees.

The new Coastal IFOA simply requires "**Retained trees** must not be **damaged** during a **forestry operation**". What constitutes significant damage that affects the longevity of trees now becomes the test. The future survival and longevity of hollow-bearing trees depends on how the EPA now interpret this condition. Will the Forestry Corporation be allowed to go on driving heavy machinery over the roots of 500 year old trees and bash their bases with machines, or will the EPA determine that this vandalism (even where the damage is not visible) will affect *the tree's longevity*.



This hollow-bearing Sydney Blue Gum had a diameter of 157.5 cm, had a machine drive around its base, causing visible root damage (right) and extensive trunk damage (likely far more internal damage than visible) (6656421, 478710)



This Hollow-bearing Tallowwood had a diameter of 196 cm, and had a machine drive around its base (on top of its roots) and sideswipe one buttress, likely causing permanent damage and shortening its life (6656411, 478692)





This hollow-bearing Blue Gum with a diameter of 165 cm was not marked as a H tree, had extensive crown damage (from a tree being dropped on it), with a branch still suspended in the crown and large branches in the bush behind, and had abundant debris left around its base (6656559, 478844)



This hollow-bearing Tallowwood with a DBH of 145 cm, had a machine drive around its base, causing significant visible root/base damage (6657014, 480491)

The new Coastal IFOA requires "If a **retained tree** is **damaged** during **forestry operations**, **FCNSW** must replace it with a **comparable tree**". There are no trees comparable to 140-250 cm diameter trees that aren't already required to be protected. These trees are irreplaceable and must be treated as such.

This barbaric practice of driving around trees with heavy machinery has to be stopped. If the Government refuses to reimpose a minimal buffer around habitat trees, then they need to ensure strict compliance with the current requirement not to damage retained trees. This is the first test of the EPA's new rules. **The future survival of numerous oldgrowth trees depends on whether the EPA now determine this has compromised the tree's longevity or purpose.**

Koala Feed Trees

The damage was not limited to giant habitat trees, with a large proportion of the Tallowwood trees which were marked to be retained as Koala feed trees carelessly and recklessly damaged, with the extent of damage likely degrading their limited value as feed trees and making it unlikely they will survive for long. This is a disgrace in one of the most important areas for Koalas in NSW.

Most of the logging area requires application of the CIFOA Koala Prescription 1 - the retention of 10 Koala feed trees >20cm diameter per hectare. Prescription 2 applies to some patches - the retention of 5 Koala feed trees >20cm diameter per hectare. The CIFOA Protocol 23.2 (4) relevantly identifies:

*Tallowwood (E. microcorys), ... must be prioritised for retention when applying the **Koala browse prescription 1** or **Koala browse prescription 2** and must make up at least 50 per cent of the retained **Koala browse trees** where these are available;*

Koala Browse Tree is defined as:

- (a) greater than 20 centimetres **DBH** or 22 centimetres at **DSHOB**;
- (b) live and healthy; and
- (c) of the following tree **species**:
 - (i) primary browse trees –
Tallowwood (*E. microcorys*);
...
 - (ii) secondary browse trees –
...
Sydney Blue Gum (*E. saligna*);

Compliance with this requirement was incidentally assessed in the 7ha area around log dump 8. This area had a relatively low density of large hollow-bearing trees, with some unmarked. There were also relatively low numbers of Tallowwoods, making it likely that most Tallowwood required protection. During our brief inspection we located 6 small Tallowwood marked for retention that had been significantly damaged.



Tallowwood trees clearly marked with a pink ring to be retained as Koala feed trees, though severely damaged by being bashed by machinery and unlikely to survive. LEFT: trunk and root damage, 28.3 cm dbh (6656464, 478802). RIGHT: Trunk damage and debris 20.5 cm dbh (6656602, 478759)



Tallowwood trees clearly marked with a pink ring to be retained as Koala feed trees, though severely damaged by being bashed by machinery. LEFT: trunk damage 32.8 cm dbh (6656435, 478799). RIGHT: Moderate trunk damage 39.3 cm dbh (6656423, 478706)



Tallowwood trees clearly marked with a pink ring to be retained as Koala feed trees, though severely damaged by being bashed by machinery. LEFT: trunk and root damage 32.7 cm dbh (6656411, 478704). RIGHT: trunk and root damage, rolover drain constructed around (6656416, 478678)

The extent and severity of damage displays reckless behaviour. There was no care taken to avoid damage. The full extent of Tallowwoods within the area was not assessed, so it is not known whether there are sufficient Tallowwood additional to requirements to allow their replacement "with a **comparable tree**". Though they should never have been brutalised in the first place.

It needs to be recognised that the EPA (NRC 2016) proposed a retention rate of "25 trees per hectare in High/high quality habitat" such as this, and these were meant to be trees over 25 cm diameter, So Koalas already have deficient resources and will be significantly affected by any further diminishment.

In their submission to the new logging rules, the Office of Environment and Heritage (2018) complained that the new Koala feed tree retention rates are less than half the number and of a smaller size than proposed by the Expert Fauna Panel, concluding that the increased logging intensity proposed under the new rules is expected to impact Koalas through diminished feed and shelter tree resources:

Koalas are selective both in their choice of food tree species and in their choice of individual trees. The scientific basis for proposed tree retention rates in the Draft Coastal IFOA is not clear, and the rates are less than half those originally proposed by the Expert Fauna Panel.

While Koalas will use small trees, research has shown that they selectively prefer larger trees. In our experience, the proposed minimum tree retention size of 20cm dbh will be inadequate to support koala populations and should be increased to a minimum of 30cm dbh. Many Koala food trees are also desired timber species, so there is a high likelihood that larger trees will be favoured for harvesting, leaving small retained trees subject to the elevated mortality rates experienced in exposed, intensively-logged coupes.

Koalas require large areas of connected habitat for long-term viability. The increased logging intensity proposed under the draft Coastal IFOA is expected to impact Koalas through diminished feed and shelter tree resources. Animals will need to spend more time traversing the ground as they move between suitable trees that remain, which is likely to increase koala mortality.

NSW's current Environment Minister Matt Kean is cited by The Sun-Herald on July 26 as stating "I don't want to see the koala extinct by 2050, I want to see their population doubled by 2050," ... adding he would aim for "at least another 20,000 koalas" by then.

"Koalas are the most iconic example of our mismanagement of the environment and we've got to say 'enough is enough'."

The day before he said:

Conservative Governments should be about upholding the rule of law and conserving our environment.

If the NSW Government continues to treat the best Koala habitat like this they don't stand a chance.

Time to Stump Up Minister Kean.