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Date: 25th March 2022

The Hon Dugald Saunders MP
Minister for Forests

Cc/- Natural Resources Commission < nrc@nrc.nsw.gov.au>

Dear Minister

Southgate State Forest assessment

Introduction

Forestry Corporation has listed Southgate State Forest for logging later in 2022, so as there are historic Koala records, we determined to undertake a rapid assessment to determine the extent and whereabouts of koala habitat in that forest. This took place last week.

We had no high expectations of finding scats, given the extensive period of extreme wet weather immediately preceding the survey, but there is koala habitat there, so no reason why koalas wouldn't be present, given the forest escaped the 2019-20 bushfires.

However, we were appalled at the lack of management, historical and current, and the evidence of neglect that was everywhere.

Summary of findings

1. **Koalas:** There were no sightings of koalas, or evidence collected by way of scats. However, a lot of the area contains Forest Red Gum *(Eucalyptu tereticornis),* and/or Grey Box *(Eucalyptus moluccana),* both koala feed tree species.

2. **Invasive weeds:** It was distressing in the extreme to stand at a point where foresters have marked the edge of a riparian buffer zone, and to view the monoculture of Lantana that is dominating the understorey of this supposedly protected area. Invasion by *Lantana camara* is a listed Key Threatening Process, and we believe it is incumbent on Forestry Corporation to properly manage this public asset, and strongly question why this is not occurring.

3. **Land clearing: on the northern boundary along Reservoir Road:** For a distance of well over 1km, a huge corridor, over 40m wide most of the way, has been bulldozed some 2 to 3 years ago, to construct a boundary fence through the forest. Half of that clearing was undertaken on state forest land, which is land owned by the NSW public.

That clearing removed wetland forest, all of it koala habitat, with numerous old-growth trees, now stacked up in windrows. This disturbance has introduced a wide range of invasive grasses into the state forest, well beyond the clearing itself (Setaria. Parramatta Grass, and Rhodes Grass), woody weeds (Lantana), and a wide range of exotic annuals such as Ragweed. This environmental vandalism raises a number of questions:

a. Did the landowner have permission to clear public land?
b. If so, who granted permission?
c. Was any environmental assessment undertaken prior to clearing?
d. Was compensation paid to the government?
e. Who is responsible for controlling weeds that have taken over as a result?
f. Why was Reservoir Road not re-established, after it was covered over?

4. **Evidence of over-logging.** Having observed the timber resources across Southgate State Forest, we now understand why Forestry Corporation made such a massive loss from its native forest operations last year, and most previous years since 2000. There are few trees greater than 45cm diameter to be seen, and in some areas, there are no harvestable trees at all within sight. The evidence of over-logging includes:

   a. Widespread occurrence of wind-felled trees as a result of excessive tree removal which has left standing trees unsupported so, in wet soil conditions, they simply topple over.
   b. In some areas, the excessive logging, and reduction of canopy, has seen an explosion of the pioneer shrub/small tree, *Melaleuca nodosa,* so dense it is difficult to walk through, while inhibiting any hardwood regrowth
   c. We found numerous areas where one can stand in one spot and count more than a dozen stumps within a 15m radius.

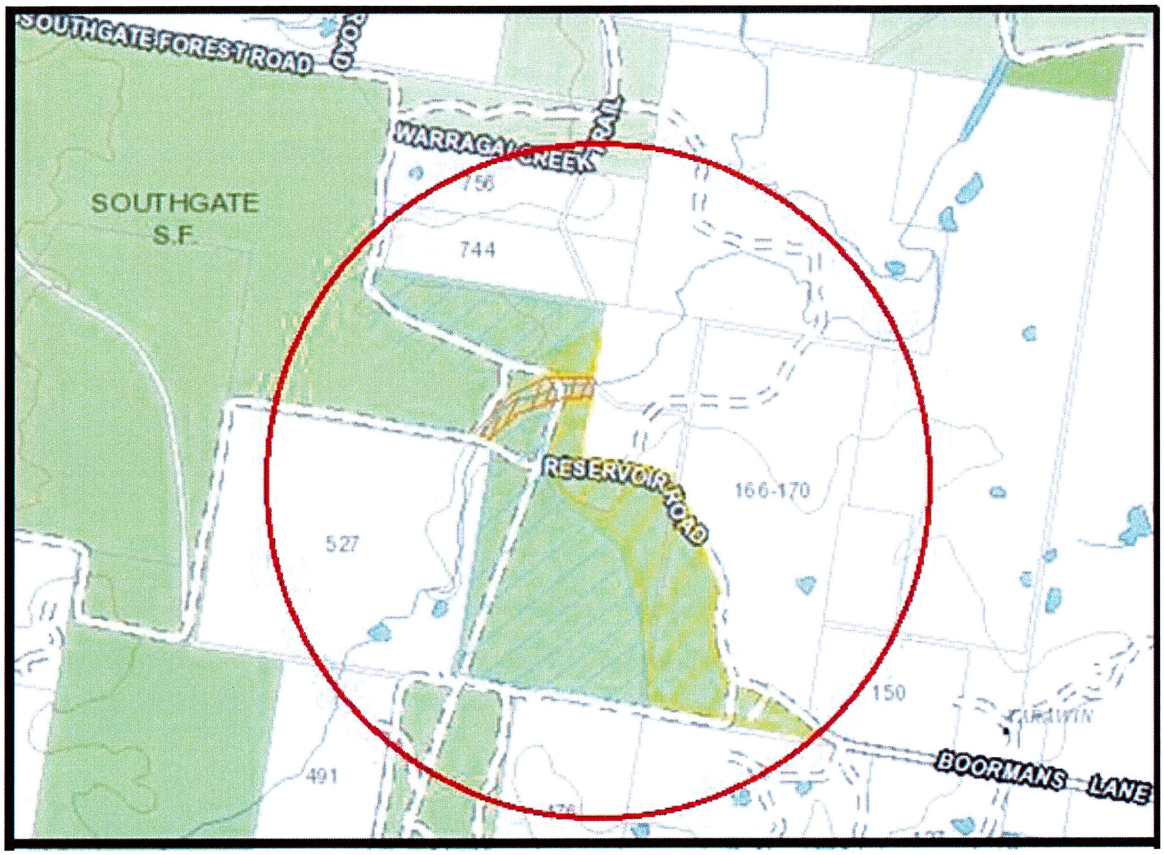
5. **Creek bank erosion:** The scale of erosion along all waterways is beyond belief, and again we believe over logging in the upper drainage lines has directly contributed to this. In fact, we photographed numerous cut stumps within 2m of mapped gullies. This is a deliberate flaunting of IFOA regulations.

6. Hollow-bearing trees are virtually non-existent, a legacy of past legal logging practices. We sincerely hope that the largest remaining trees are retained as habitat trees if and when logging takes place, as recommended by the Natural Resources Commission.

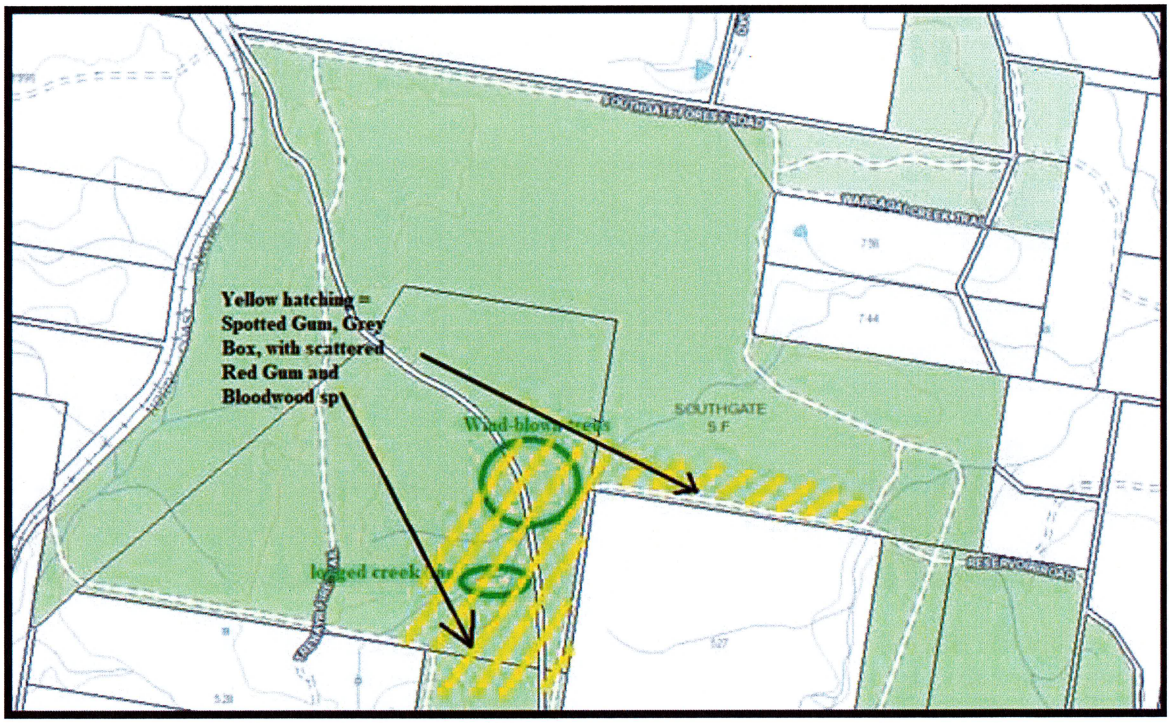
Evidence

Koala habitat:

There were no sightings of Koalas, or evidence found by way of scats, or scratches on trees could be reliably confirmed as being those of koalas. This was a task made difficult by the lengthy period of extreme wet weather that had been experienced prior to the survey. However, the limited search undertaken in 3 different areas of the Southgate State Forest noted that, while many areas of the forest were dominated by Spotted Gums and Ironbark species, other areas did support a combination of Forest Red Gums *(Eucalyptus tereticornis)* and Grey Box *(Eucalyptus molucanna),* both known koala feed tree species.



Red hatching = Riparian habitat. Yellow hatching = Red Gum / Grey Box community, and blue hatching = Spotted Gum Ironbark Dry Sclerophyll forest.



The yellow hatching shows forest dominated by Spotted Gums and Grey Box, with scattered Forest Red Gums and Bloodwoods

The degraded northern section of Southgate State Forest, containing mostly regrowth Spotted Gums, with only the red hatched areas containing any koala feed tree species

2.

Invasive weeds

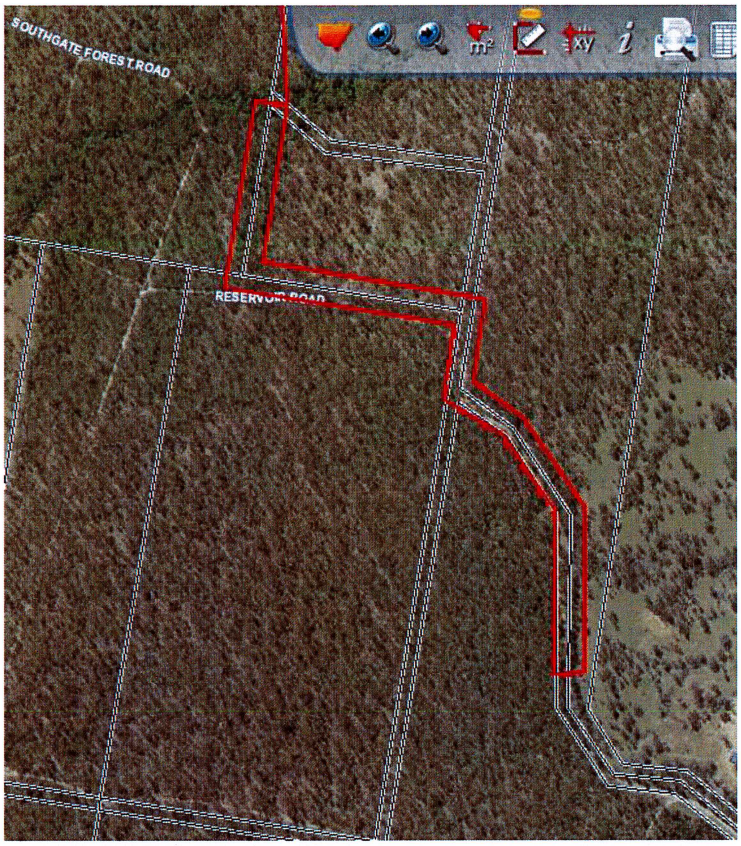
We were appalled at the lack of any attempt to control invasive weeds, something that has been very noticeable in recent decades across the entire state forest estate.

There is little more depressing that coming to riparian zones, marked up to show where logging is forbidden, and native vegetation supposedly protected, only to be faced with a wall of Lantana (see following images).

This really is a disgrace: A licence to log this publicly owned forest comes with a responsibility to manage those forests. Invasion by *Lantana camara* is a listed Key Threatening Process, and Forestry Corporation must get its act together and properly manage these assets which, after all, are owned by the people of NSW, and not there for the Corporation's exclusive use.

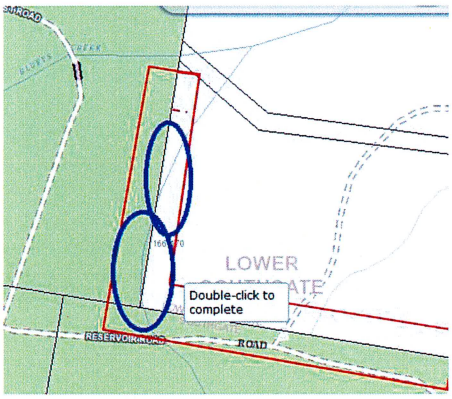
3. Land clearing: on the northern boundary of Reservoir Road:

For a distance of well over 1km, a huge corridor, over 40m wide most of the way, has been bulldozed to construct a boundary fence, all through forested land.



The map at right shows the cleared area outlined in red. I note that there is a 20m wide crown road reserve along the southern section which, when Reservoir Road was in existence, would have been partially cleared, likely to a width of less than 10m.

Assuming the fence line runs along the boundary line, half of that clearing was undertaken on state forest land, or crown road reserve, which is land owned by the NSW public, destroying, some wetland forest, koala habitat, and old-growth trees in the process, all of which is now stacked in windrows (see images below).



Now that it has been cleared, it is difficult to know the exact extent of damage. However, as the above map shows, there is a creek line running northwards into Blueys Creek with those areas circled in blue seemingly a swampy area. above right is a photograph of that section of clearing, now supporting invasive grasses such as Setaria and Vasey Grass.

The rest of the clearing is a similar width, between 40m and 50m wide, even without the windrows which contain some old-growth trees (see below), and is now becoming overgrown with Lantana and a range of other invasive weeds and grasses that are rapidly spreading into the state forest.

Parts of the fence itself is an abomination, 1,800cm high mesh, designed to halt the movement of most wildlife, probably even koalas.

This environmental vandalism raises a number of questions

a. Did the landowner have permission to clear public land?
b. If so, who granted permission?
c. Was any flora and fauna assessment undertaken prior to clearing?
d. Was compensation paid to the government?
e. Who is responsible for controlling weeds that have taken over as a result?
f. Why was Reservoir Road not re-established, after it was bulldozed, and left covered by windrows, and eroding badly into the wetland?

4. Evidence of over-logging

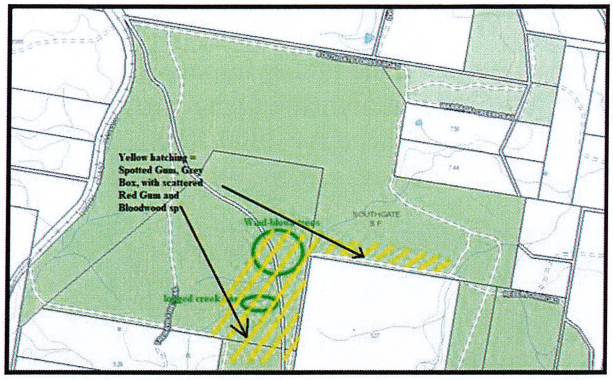
Having observed the timber resources across Southgate State Forest, we now understand why Forestry Corporation made such a massive loss from its native forest operations last year, and most previous years since 2000. There are few trees greater than 45cm diameter at the basal cut, and in some areas, there are no harvestable trees at all within sight.

The above image of a monoculture of regrowth Spotted Gum in the northern section of the forest was by far and away the best timber stand we observed, with nothing else coming close. However, most of those trees measure less than 30cm diameter with the largest no more than 45cm, and that's at the base. The salvage rate of logs that size is less than 30%.

The evidence of over-logging includes the widespread occurrence of wind-felled trees as a result of excessive tree removal which has left trees unsupported so, in wet soil conditions, they simply topple over.

This phenomenon is understandable in the current extreme wet conditions, but many trees have fallen years ago.

The only explanation we can offer is that, because of past heavy logging rates, trees have been left with little support which, combined with the swampy unstable nature of the soils, has allowed the trees to be up-rooted during even relatively calm conditions.



The area identified by the green circle in the above map was particularly badly impacted by wind-blown trees, and the image at left and below showing a little of the damage.

The landscape is dotted with these columns of clay (see left), supported by the roots of previously fallen trees, suggesting this has been an on-going problem.

A recent casualty, this mature Spotted Gum had simply fallen over in the soggy conditions. Note, no other trees were near enough to be damaged by the fall, and this is also mapped as old-growth.

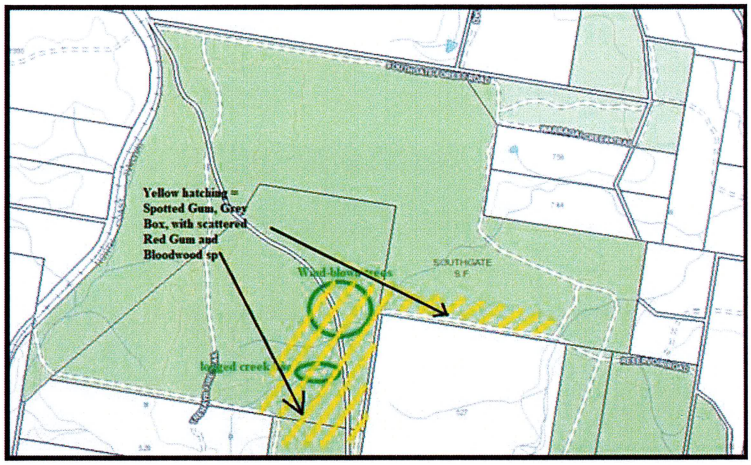
The dearth of large trees appears to suggest that, while the area is mapped as old-growth forest, it has been heavily logged in the past

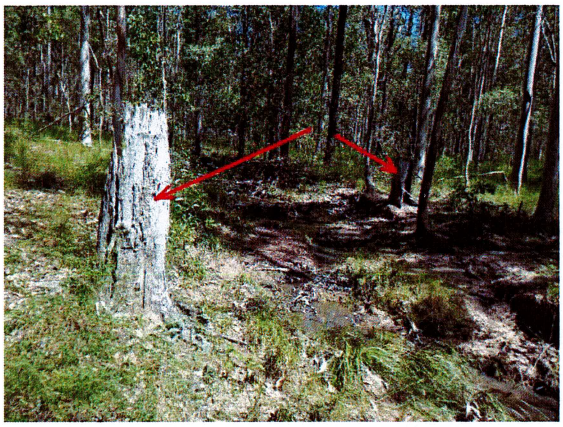
In some areas, particularly in the eastern half of the northern portion of Southgate State Forest, past excessive logging rates and reduction of canopy, has seen an explosion of the native pioneering species, *Melaleuca nodosa.* This small tree species is so dense it is difficult to walk through, and is seriously inhibiting any hardwood regrowth.

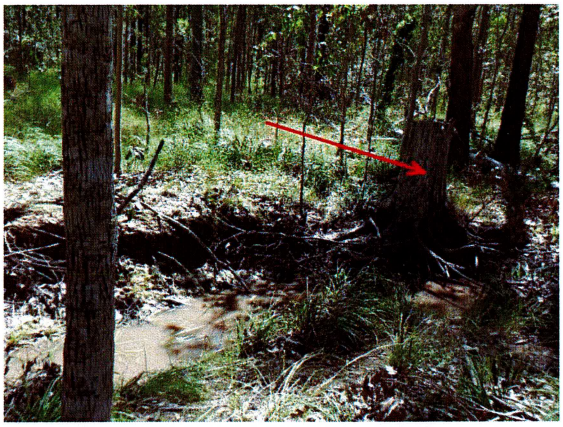
We also found places where one can stand in one spot and count more than a dozen stumps within a 15m radius; further evidence of over-logging.

5. Creek bank erosion:

The scale of erosion along all waterways is beyond belief, and again we believe over logging in the upper drainage lines has directly contributed to this. In fact, we photographed numerous cut stumps within 2m of mapped gullies, the following images taken in the vicinity of the green oval on the map at right. This is a deliberate flaunting of IFOA regulations.







Cut stumps on the edge of a gully within a mapped exclusion zone, in direct breach of IFOA regulations

And further downstream, this is the result

Track erosion

Erosion is not limited to creeks and gullies. A lack of, or ineffective, roll-overs and side drains has contributed to track erosion wherever there is a slope. Again, this is not good enough and contributes to poor water quality throughout the entire catchment

7. Lack of hollow-bearing trees

The areas surveyed showed that hollow-bearing trees are virtually non-existent, a legacy of past allowable logging practices. As a result, however, we sincerely hope that the largest remaining trees are retained as habitat trees, if or when logging takes place, as recommended by the Natural Resources Commission.

In summary

It's as though the last log truck leaves at the end of a logging program, and the forest is left to the elements, weeds and feral animals until Forestry Corporation decides to return and wreak havoc once again. It is time to seriously reassess the negative economic, social and environmental impacts of what is going on, and finally put an end to native forest logging.

Other observations

Threatened Weeping Tea Tree

Our survey identified several specimens of Weeping Tea Tree *(Melaleuca irbyana)* at GPS 500924E - 6728877N. Found commonly growing with another paper-barked species, *Melaleucca nodosa,* finding the Weeping Tea Tree requires extremely diligent searching and, as it is known to also occur in the adjoining Warragai Creek Nature Reserve, is likely to occur elsewhere across the Southgate State Forest.

The recorded *M. irbyana* was found in an area mapped as 'old-growth', and therefore likely to be safe from harm, although one specimen was on the road verge and vulnerable to future track maintenance.

Also, a flora survey carried out by the Clarence Environment Centre, several years ago, identified the endangered orchid, *Geodorum Terrestre* in the State Forest.

Endangered Subtropical Coastal Floodplain Forest, a threatened ecological community

There is an extensive drainage swale within 150m of the western boundary along the railway line, in the northern section of the forest, which is very wet at the moment, and contains all the floristic ingredients of Subtropical Coastal Floodplain Forest, dominated by Swamp Turpentine *Lophostemon suaveolens)*. Probably only a hectare or two, but likely qualifies as floodplain as it's below the 50m contour, and therefore should be properly assessed.

Scar trees

The image at right, of a burned-out Swamp turpentine *(Lophostemon suaveolens),* could well be a scar tree, that particular species was often used by indigenous peoples, and these features are now protected.

I'm unaware of any responsibility Forestry Corporation has to identify and protect these types of indigenous sites, but if they don't have that responsibility, can we suggest that they be given it.

This particular tree, like thousands more across the forest estate, will not survive another fire.

Feral animals and weeds

The survey recorded evidence of feral pigs, goats and wild dogs. However, we doubt if there have ever been any control programs, and certainly there is no evidence of any.

As well as Lantana, the primary weed problem, we also observed some worrying infestations of Corky Passionfruit *(Passiflora suberosa),* which should be addressed.

In conclusion, given the issues outlined above, we ask that remediation efforts be initiated as soon as possible, and ask that serious consideration be given to cancelling the proposed logging program altogether

Yours sincerely

John Edwards
Honorary Secretary

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Warragai Creek's lantana infested riparian zone is a disgrace – protected from logging though!