[redacted]

NSW Regional Forest Agreements
Forestry Branch
Environment Protection Authority
PO BOX A290
Sydney South NSW 1232

13th February 2018

Re: Native Forest Logging and the RFA

Dear Sir/Madam,

We could discuss a litany of negativities of logging the native southern forests, but I would like to focus on one aspect, leaving aside for the present:

Taxpayer costs of FCNSW
Habitat and wild life loss
Soil degradation
Loss of tourism income
Water quality degradation
Water quantity reduction (regrowth absorbing more water.)
Blatant failure to hold FCNSW and its contractors to account for illegalities
Regulatory capture and the consequent debauching of the law

And on the other side: a small number of jobs.
Some people would support the death penalty to create a job for a hangman.

Carbon pollution

We absolutely cannot afford unnecessary emissions of CO_2 into the atmosphere which logging undoubtedly causes. I would like to add some remarks on this point.

It has been maintained that forest regrowth restores the carbon balance:

> *"Harvested forests provide the greatest ongoing greenhouse gas benefits,"*
> F. Ximenes et al. [1]

The authors claim that harvesting native forests and burning residues for power generation results in greater carbon sequestration over 200 years than if the forests were conserved and not logged. The claim is based on (i) the carbon stored in wood products, (ii) the substitution by wood for other more 'carbon intensive' materials, and (iii) the burning of residues for electricity production (counting the carbon saved from not burning fossil fuels.) Ximenes et al. do however, admit:

> "The high proportion of biomass from South Coast forests utilised for pulp and paper manufacture significantly reduces the long-term carbon storage and product substitution benefits of those forests. 4.2.1, p18"

[1] F. Ximenes, B. George, A. Cowie, G. Kelly, J. Williams, G. Levitt, K. Boer: *Harvested forests provide the greatest ongoing greenhouse gas benefits.* NSW Department of Primary Industries, June 2012. (https://www.dpi.nsw.gov.au/data/assets/pdf_file/0006/434643)

There are many questionable assumptions made in support of these claims; to cite just one example, there is uncertainty about the carbon/methane balance in landfill emissions; but there is another very significant objection to their program, namely that their assumptions – if valid – show that 30 to 40 years must elapse before the net carbon sequestration benefit becomes positive. (Ximenes *op cit* Figs 4.1 and 4.2, p16)

When sugar cane waste materials are burned to generate electricity, we can confidently claim approximate carbon neutrality for the process, since the cane will re-grow within twelve months or less. But for native forest extraction, the neutrality must wait for many decades, possibly centuries, before the forest can be said to have been fully restored to its previous equilibrium. In the shorter term, there exists a carbon 'debt'. In particular, the biomass ancillary to timber-getting to be burned under the proposed policy would instead lie in the forest and emit carbon only slowly over many years, as too, does waste wood deposited in landfill.

The long time needed to work off the carbon debt is supported by other studies; see for example *"The upfront debt of bioenergy,"* G. Zanchi et al. :
Report for Joanneum Research [2]

Unfortunately, it is precisely in the next decade or two that carbon emissions must be brought down.
To wait forty years is a path to climate disaster.

The further development of renewable energy sources will supplant fossil fuel use – indeed renewable energy is already cheaper than from coal-fired plants right now – but in the meantime, every year of present delay in emissions reduction makes the future task extremely difficult, if not almost impossible.

We should accept only those devices and activities for which the carbon emissions can be repaid in the very short term. For example, the carbon emitted from the manufacture of a solar PV panel is recouped in a year or two.
We wouldn't invest in a pension plan that matures after 100 years and provides a fabulously wealthy retirement, for the obvious reason that we wouldn't be alive to enjoy it. Neither should we pursue a policy that costs us carbon over the next two or three or four decades.

Furthermore, there is evidence *that it is precisely the mature tree stock which is most effective in carbon absorption,* as discussed in this paper: [3]

How so very important it is to preserve our mature and maturing forests!

Yours sincerely,

[redacted]

[2] G. Zanchi, N. Pena, N. Bird: *The upfront debt of bioenergy*, Joanneum Research, Graz, Austria, May 2010 (http://www.birdlife.org/eu/pdfs/Bioenergy Joanneum Research.pdf)

[3] *Rate of tree carbon accumulation increases continuously with tree size* N. L. Stephenson, et al Affiliations Contributions Corresponding author Nature (2014) doi:10.1038/nature12914 Received 05 August 2013 Accepted 27 November 2013 Published online 15 January 2014