

**Code of Practice and Management Standards and Procedures for timber harvesting
2014 – Draft for public release**

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Thankyou for the opportunity to provide comment on the documents associated with the Code of Forest Practice (Code of Practice for Timber Harvesting Operations 2014. [ISBN 978-1-74287-867-6] and Management Standards and Procedures for timber harvesting operations in Victoria's State Forests 2014 [ISBN 978-1-74287-897-3]. We have now carefully examined both of these documents and outline my comments below.

1. We welcome the Victorian Government's written commitment to use the best available and latest science to inform the content of the Code of Practices.
2. However, we found no evidence in any of the documents to indicate that any of the new science over the past 10-15 years had actually been adopted in the Management Standards and Procedures. This has made it quite clear that:
 - A. Very little (if any) science has been used to guide the current draft document. Indeed, there is not a single citation in the entire manuscript! The results of key studies by The Australian National University, The University of Melbourne and even the Victorian Government itself have been ignored, overlooked or both.
 - B. The document is badly out of date – as indicated by point A above. The content may have been appropriate for the mid-1980s, but it is entirely deficient now, especially as montane ash forests are among the most and best studied and understood forest ecosystems worldwide.
 - C. Key literature like the prescriptions documents that were prepared by The Australian National University to assist the Government of Victoria better manage wood and

non-wood values have been ignored (see Lindenmayer et al., 2013a, 2013b, 2014 – as referenced below).

- D.* Many key topics have been ignored such as: (i) the definition and protection of old growth montane ash forest, (ii) the need to expand streamside reserves to better protect populations of hollow-bearing trees, (iii) the need to protect locations where Leadbeater’s Possum has been detected with expanded buffers, (iv) the need to update and strengthen the definition of Zone 1 and 2 forest for Leadbeater’s Possum based on the understanding of the habitat requirements of Leadbeater’s Possum drawn from the past 10 years of work (and the measured deterioration of their habitat; Lindenmayer et al., 2013), (v) and the need to protect all existing hollow-bearing trees in montane ash forests with expanded buffers (see Lindenmayer et al., 2013a, 2013b, 2014).
- E.* The document’s “commitment” to conserve “giant trees” is a lame one as such trees are now extremely rare (and declining rapidly in number (Lindenmayer et al., 2012a, 2012b; 2013) and the Code’s prescription will be ineffective unless there are serious attempts to specify protective buffers around such trees (100 m edge effects [Parry 1997] would be appropriate in montane ash forests [Lindenmayer et al., 2013a, 2013b, 2013c]). Moreover, the recruitment process of new cohorts of large old trees is severely impaired and must be addressed for new giant trees to be recruited (Lindenmayer et al., 2012, 2013a, 2013b, 2013c). We note that the section 4.4 Giant Trees in the Management Standards and Procedures documents relates only to the East Gippsland and Tambo FMAs (see 4.4.1.1) and therefore does not even cover the montane ash forests of the Central Highlands of Victoria where the problems of loss of large old trees are arguably most serious.
- F.* The document makes no mention of damage that results from salvage logging (see Lindenmayer and Ough 2006, Lindenmayer et al., 2008). Section 8.1.4.2 states that 15% of GROSS logged area must be maintained undisturbed, and although machines are not allowed in these areas, trees can be felled out of them (filter strip, not buffer). The new code allows for salvage logging of low severity burnt forest (crown still green) which is ecologically inappropriate as this is one of the key triggers for important multi-aged stands (McCarthy and Lindenmayer 1998). In addition, the new prescriptions remove coupe size limitations in accordance with “fire salvage harvesting requirements” (5.4.1.8) – the maximum coupe size in montane ash is 120ha, but there is no limitation on coupe aggregations (8.1.3.1). A further issue is that in section 8.1.4.2, cording and matting are allowed to be left on salvage landings (and presumably that area will not be regenerated).

- G. The document fails to consider landscape-level issues, such as for example, the amount of a landscape that needs to be retained and then grown through to an old growth stage (see Lindenmayer et al., 2013a, 2013b, 2013c, 2014).
- H. The document fails to make provision for the over-commitment of wood resources that occurs following fires (Lindenmayer et al., 2012a, 2014) and the need to increase protection levels of remaining unburned (green) forest after such fires.
- I. The timber harvesting prescriptions fail to recognize the importance of the Variable Retention Harvest System and the need to implement it in montane ash forests (Lindenmayer 2007, Lindenmayer et al., 2010; Lindenmayer et al., 2012c).
- J. The document fails to understand the important negative impacts associated with roads and tracks and how such infrastructure can fragment and isolate populations of Leadbeater's Possum (University of Melbourne, unpublished data). Notably, this work was funded by the Government of Victoria.
- K. Various State Government agencies have somehow overlooked the wealth of evidence suggesting that significant environmental problems and risks of biodiversity loss have become even more apparent in many jurisdictions in the past 5-10 years – and especially after the 2009 fires in the Central Highlands of Victoria.
- L. There is a “business-as-usual” approach planned that ignores sub-points a, b, c, d, e, f, g h, i, j and k above. But DEPI's own research on Leadbeater's Possum shows that a business-as-usual approach will commit Leadbeater's possum to extinction, especially in the highly likely event of additional fire (Lumsden et al., 2013).

There are many more problems and issues with both documents (i.e. Code of Practice for Timber Harvesting Operations 2014. [ISBN 978-1-74287-867-6] and Management Standards and Procedures for timber harvesting operations in Victoria's State Forests 2014 [ISBN 978-1-74287-897-3] than we have outlined above. A far more extensive critique would be required than we have provided here to work through all of them.

In summary, the present document is a significant watering down of previous Codes of Practice. It is poorly conceived, and written at a low level of intellectual rigour and standard that is less than mediocre. We see no evidence in this document that DEPI or the Victorian Government takes the conservation of Leadbeater's Possum seriously, nor the improved management of Mountain Ash or Alpine Ash forests seriously. Indeed, approval of this antiquated and heavily watered down set of prescriptions would very likely lock in the extinction of Leadbeater's Possum (see Lindenmayer and Possingham, 2013).

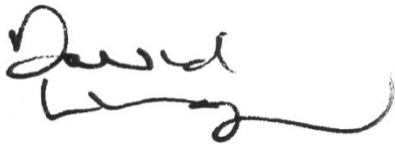
A general conclusion from the current document is that the Victorian Government is currently not capable of employing good science to guide best practice harvesting operations.

On that basis, substantial areas that are currently broadly designated for native forest logging should be changed in tenure to National Parks where other values like biodiversity conservation, carbon storage, water production, and tourism will not be further degraded by a poorly conceived and written Code of Practice.

I am more than happy to further discuss the points I have outlined above in further detail. I have also taken the liberty of attaching a copy of the prescriptions document written in April 2013 and then revised in July 2013 for your information.

I am sincerely sorry that I could not be more positive about this draft. Indeed, I rarely write such heavily critical reviews of reports or scientific articles, but this is one of most poorly constructed documents I have had to assess in many years as a scientist. This work does nothing to engender any sense that the Victorian Government intends to manage montane ash forests in an ecologically sustainable way nor conserve populations of Leadbeater's Possum.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'David Lindenmayer', with a long, sweeping underline.

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(on behalf of all authors)

REFERENCES

- Lindenmayer, D. B. 2007. The Variable Harvest Retention System and its implications in the Mountain Ash forests of the Central Highlands of Victoria. ANU Fenner School of Environment and Society Occasional Paper No. 2 (November 2007). ISSN: 1834:1834-108x.
- Lindenmayer, D. B., and Ough, K. (2006). Salvage logging in the montane ash eucalypt forests of the Central Highlands of Victoria and its potential impacts on biodiversity. *Conservation Biology*, 20, 1005-1015.
- Lindenmayer, D. B., Burton, P. and Franklin, J.F. (2008). *Salvage Logging and Its Ecological Consequences*. CSIRO Publishing, Melbourne. 227 pp.
- Lindenmayer, D. B., Knight, E., McBurney, L., Michael, D. and Banks, S. C. 2010. Small mammals and retention islands: An experimental study of animal response to

- alternative logging practices. *Forest Ecology and Management* 260: 2070-2078.
<http://dx.doi.org/10.1016/j.foreco.2010.08.047>
- Lindenmayer, D. B., Blanchard, W., McBurney, L., Blair, D., Banks, S., Likens, G. E., Franklin, J. F., Laurance, W. F., Stein, J. and Gibbons, P. 2012a. Interacting factors driving a major loss of large trees with cavities in a forest ecosystem. *PLOS One* 7: e41864. <http://dx.doi.org/10.1371/journal.pone.0041864>
- Lindenmayer, D. B., Laurance, W. F. and Franklin, J. F. 2012b. Global decline in large old trees. *Science* 338: 1305-1306. <http://dx.doi.org/10.1126/science.1231070>
- Lindenmayer, D.B., Franklin, J.F., Löhmus, A., Baker, S., Bauhus, J., Beese, W., Brodie, A., Kiehl, B., Kouki, J., Martínez Pastur, G., Messier, C., Neyland, M., Palik, B., Sverdrup-Thygeson, A., Volney, J., Wayne, A. and Gustafsson, L. (2012c). A major shift to retention forestry can help resolve global forest sustainability issues. *Conservation Letters*, 5, 421-431.
- Lindenmayer, D. B., and Possingham, H.P. (2013). No excuse for habitat destruction. *Science*, 340, 680.
- Lindenmayer, D. B., Blair, D., McBurney, L., and Banks, S. (2013a). New Restoration Forest Management Prescriptions to Conserve Leadbeater's Possum and Rebuild the Cover of Ecologically Mature Forest in the Central Highlands of Victoria. Fenner School of Environment and Society Report, The Australian National University, Canberra. Version 1. July 2013.
- Lindenmayer, D. B., Blair, D., McBurney, L., and Banks, S. (2013b). New Restoration Forest Management Prescriptions to Conserve Leadbeater's Possum and Rebuild the Cover of Ecologically Mature Forest in the Central Highlands of Victoria. Fenner School of Environment and Society Report, The Australian National University, Canberra. Version 2. July 2013.
- Lindenmayer, D. B., Blanchard, W., McBurney, L., Blair, D., Banks, S., Driscoll, D., Smith, A. and Gill, A. M. (2013c). Fire severity and landscape context effects on arboreal marsupials. *Biological Conservation* 167: 137-148.
<http://dx.doi.org/10.1016/j.biocon.2013.07.028>
- Lindenmayer, D. B., Blair, D., McBurney, L., Banks, S.C., Stein, J.A.R., Hobbs, R.J., Likens, G.E., and Franklin, J.F. (2014). Principles and practices for biodiversity conservation and restoration forestry: a 30 year case study on the Victorian montane ash forests and the critically endangered Leadbeater's Possum. *Australian Zoologist*, 36, 441-460.