Dear Madam/Sir

The NSW Scientific Committee welcomes the opportunity to provide comments on the *Remake of the Coastal Integrated Forestry Operations Approvals,* Discussion Paper February 2014. The Scientific Committee welcomes several aspects of the proposed Coastal IFOA, including strengthening of penalties for offences, introducing changes to make breaches of non-licence terms enforceable and delegating enforcement to the EPA. However the Scientific Committee has a number of concerns, in particular related to threatened species and impacts on biodiversity. *In particular, the Scientific Committee believes that the underlying principle of the proposed IFOA must be ecologically sustainable forest management, and that a core aim of the proposed IFOA must be to improve or maintain environmental values*. Our specific concerns are outlined below.

1. The proposed approach to protect threatened species and communities is to "protect habitat features that are important for a broad range of threatened species at multiple scales…….However…...there will be an on-going need for some site- or species-specific provisions under the new IFOA" (p. 22). Further, "Currently protected site-based areas that have been triggered by species records under the current licences will be reviewed and may be retained, modified or excluded depending on their appropriateness" (p. 24). It is proposed that an expert panel (or panels) will be convened to review the list of threatened species and assess which species are likely to be adequately protected by the new landscape provisions and which will require additional measures. More information is required on how species and sites requiring targeted surveys will be identified and selected. *Importantly, there is no indication of the proportion of the expert panel that will be made up of independent scientists*.

2. The proposal for Threatened Ecological Communities (TECs) appears to suggest that, for the purpose of the licence, approved TEC maps and approved field identification keys could override the determination advice provided by the Scientific Committee. It is proposed that these approved TEC maps and field guides will be developed by "the EPA, FCNSW, DPI and relevant independent experts" and the "agencies will also agree on the diagnostic characteristics for each of the priority TECs based on the Scientific Committee determinations and will seek independent expert advice as appropriate" (p. 24). It is crucial that the approved TEC maps and/or field identification keys are consistent with the determination advice, because these could then be used to identify TECs more widely and result in unintended negative effects outside the forestry estate. Further, the difficulties in developing a reliable field identification key for TECs should also be considered*. The Scientific Committee believes that the Determination for each endangered ecological community (EEC) must take precedence for identification of the EEC over 'approved' maps or field identification guides.*

3. It is proposed that “logging will be prohibited in TECs unless a plan approved by the EPA/DPI is applied or if specifically exempted under various licence protocols” and “a plan will only be approved if it has provisions that protect the specific values of the TEC” (p. 24). *However, there is no indication of the process by which approved plans for logging in TECs or exemptions will be reviewed and whether such a review will involve independent scientists.*

4. The listing of species and ecological communities is a dynamic process, with new listings under the relevant Acts occurring frequently. *How will listings of endangered species or ecological communities that occur after the IFOA is in place be managed?*

5. The proposed IFOA sets out a process for managing threatened species at the landscape-scale. However it is not clear what criteria will be used to determine whether these processes and resultant management actions are effective. How will the effect of the IFOA on threatened species be assessed? Section 10 outlines ‘A new strategic environmental monitoring framework’ however there is little detail on how monitoring will be conducted. Instead the proposal argues that $1.7 million per year on pre-harvest surveys has been of little use. Good adaptive management plans require data to be collected and assessed following management actions so that the effect of management actions can be assessed and modified as required. Long-term survey data for threatened species and ecological communities is an essential requirement for assessment and adaptive management. The proposed IFOA argues that the collection of the data is costly and not effective. The argument that the data collected is not very useful is poorly supported. In the context of forestry operations worth millions of dollars, the true costs of environmental protection need to be considered and not simply abandoned on the basis of expense.

6. The proposed IFOA gives the Forestry Corporation of NSW ‘flexibility’ to determine how outcomes specified in the IFOA and licence conditions will be met. *It is the opinion of the Scientific Committee that specification of the desired environmental outcomes and agreed principles for monitoring and reporting on these outcomes must be determined by a body independent of the Forestry Corporation.*

7. The framework will be “appropriate in scale to allow for the conduct of forestry operations as a commercial enterprise” (p. 22). It is unclear what this statement means and therefore the implications for the protection of threatened species and communities cannot be evaluated. It is proposed that the “licence will include minimum required thresholds of areas protected from forestry operations at the local scale and maximum thresholds for harvesting disturbance….in both time and space”

(p. 24). The problem with relying too heavily on this approach is that there is currently a lack of scientific evidence as to what these thresholds should be. Specific monitoring and research into the adequacy of any thresholds should be conducted for each different silvicultural method and thresholds changed if it's apparent they are inadequate. If generic thresholds and prescriptions, such as the size and spacing of wildlife habitat clumps, are to be used across the estate then they should be based on the threatened species with the highest requirement for limiting resources. It has been argued that the use of generic 'one-size-fits-all' prescriptions to mitigate the effects of logging (Gibbons & Lindenmayer 1997; Munks et al. 2009) and general thresholds for conservation purposes (Lindenmayer & Luck 2005) may result in unintended negative outcomes for specific species. The proposal of improved landscape connectivity extending across the forestry estate is a positive approach, but particularly in the case of threatened fauna species it cannot be viewed in isolation from the connectivity to and threatening processes within the matrix surrounding the forest estate (as shown by Wayne 2006).

8. Figure 2 is missing an important element required for effective adaptive management. There is no indication how research findings or survey data will be incorporated into IFOA operations. Similarly how newly listed threatened species and communities will be considered. A review every 5 years is not sufficient to incorporate the flow of information required for effective adaptive management.

9. Key threats to endangered species are weeds and pest animals. The proposed IFOA does not appear to incorporate the preparation of weed and pest management plans. Removal from the IFOA of references to legal obligations under other laws may well result in reduced compliance to these obligations. The Scientific Committee suggests that the legal obligations under other environmental legislation remain within the IFOA.

10. On p.23 it is stated that the definitions of wetlands and rocky outcrops will be 'simplified and clarified'. The definitions of these landscape features are clearly important and should be detailed to allow comment.

11. The proposed IFOA identifies the use of technology such as LIDAR to reduce costs and increase effectiveness of environmental management. While the Scientific Committee recognises the likely advantages of application of these sorts of technological tools, we recommend that physical marking on-ground of environmentally sensitive areas during forestry operations is retained in order to minimise the risk of damage to these areas.

12. It is proposed that the Forest Practices Authority of Tasmania (FPA) will review the proposed framework. The list of items that the FPA will review suggests that the silvicultural practice of variable retention, which is currently being trialled in Tasmania, may be implemented in NSW. Considering the vastly different vegetation communities, threatened species and surrounding land-uses in Tasmania compared to NSW, the results from experimental research into the impacts of aggregated retention undertaken in Tasmania (e.g. Baker et al. 2009; Lefort & Grove 2009; Hingston & Grove 2010; Neyland & Jarman 2011) are not necessarily transferable to the NSW forest estate. If silvicultural practices in native forests in NSW are going to change from the selection type methods (Florence 1996; Stoneman 2007; NSW Forestry Corporation 2012) to variable or aggregated retention, the potential impacts of this change should first be trialled in NSW. For example, Munks et al. (2009) argues that "local research and monitoring, combined with a broader understanding of the issues from other regional studies…" (p. 522) is required for effective tree-hollow management. This is particularly important considering that such a change in NSW would involve moving from a less intensive logging method (single tree selection or Australian group selection) to a potentially more intensive method (variable/aggregated retention), whereas in the case of Tasmania it was a change from a more intensive method (clearfelling) to a less intensive method (variable or aggregated retention). *The Scientific Committee recommends that a review of the proposed framework be conducted by a panel of experts including members from forestry authorities from a range of states as well as independent scientists.*

13. The Scientific Committee does not support the introduction of a steep slope harvesting trial. The protection of slopes >30° has been a principle of forestry practise for many years with good reason. It is unclear whether the steep slope harvesting methods being trialled will remove all timber (excluding riparian buffers) from each coupe or not. If it does then it will be a more intensive silvicultural method in terms of the proportion of stand basal area removed compared to those methods currently used in native forests of NSW. Although the > 30° slopes at the proposed trial site were logged between the 1950s and 1980s (NSW EPA 2014), any slopes that weren't logged during that period are likely to fit the definition of old growth forest and should be excluded from harvesting (as appears to be the case in the planned trial). Furthermore, steep slope harvesting has the potential to have a much greater impact than just on soil and water. The cumulative effect of canopy openings (in both space and time) over the landscape on sensitive faunal groups is critical as well, with areas of steep slopes often refuges for threatened species.

14. It is proposed that the framework will be "informed by targeted ongoing monitoring to assess key outcomes" (p. 22). The information provided about what this monitoring will entail is vague and therefore its adequacy cannot be determined.

If the monitoring framework is based on the indicators that currently inform ESFM reporting then it would clearly be inadequate to monitor the "response of threatened species and their habitat to logging" (p. 38). The removal of pre-harvesting surveys means that threatened species protection will be based on what has been recorded in the past and new records of threatened species within the forest estate may go undetected and therefore will go unmanaged. The discussion paper argues that "the large amount of data collected has proved to be of limited use for monitoring, long term management……" (p. 38). However this argument is not well supported, considering that all records of threatened species within NSW (irrespective of land tenure) add to an understanding of their distribution and this information is crucial for their effective management. It is the Scientific Committee's opinion that targeted surveys for threatened species provide invaluable ecological data on species for which often very little is known. For example, the long footed potoroo in NSW is largely only known from forestry records. Without data collected from survey effort, the fate of fauna and flora on the SF estate will be largely guesswork, with landscape features used as proxies.

Yours sincerely

Professor Michelle Leishman
Chairperson, NSW Scientific Committee

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