

Comments of the CIFOA monitoring program

1. Does the monitoring program provide useful information and insights that meet your needs? If not, what are the key gaps?

State forests have served an economic purpose through the logging of trees for over 100 years. However the reason intensive logging began, initially in the Eden region, was due to a perceived reduction in forest growth, that was blamed on retained trees. The monitoring program suggests-

“The Coastal IFOA aims to balance the on-going protection of threatened species, water, soil and sustainable timber supply by ensuring forestry operations are carried out:

- in accordance with the principles of ecologically sustainable forest management
- in a manner that integrates the regulatory regimes for environmental planning, assessment and protection, and biodiversity and threatened species conservation.

The principles of ecologically sustainable forest management are detailed in the Regional Forest Agreement for the Eden region and subsequent Eden RFA variation at attachment 14, clause 44. With regard to soil and water the principles advise to-

- Maintain the chemical and biological functions of soils by protecting soils from unnatural nutrient losses, exposure, degradation and loss.
- Maintain the physical integrity of soils by protecting soils from erosion, mass movement, instability, compaction, pulverisation and loss.
- Protect water quality (physical, chemical, biological) by measures controlling disturbance resulting from forest activities.
- Identify and maintain at appropriate levels, water yield and flow duration in catchments.

Among other requirements soils need to supply the nutrients and water for the growth of commercial tree species for logging. Unfortunately, NSW government agencies have always rejected the science that enables a capacity to understand the chemical and biological functions of soils. The ability to maintain these functions requires management alluded to in the National Forest Policy Statement, because biodiversity has always played a critical role in forest growth and health.

“ . . . The Governments recognise the unique nature of Australia's biota and that the natural inter-relationship between native flora and fauna is essential for the health of the forest ecosystem. Accordingly, they will manage for the conservation of all species of Australia's indigenous forest fauna and flora throughout those species' ranges, and they will maintain the native forest cover where a reduction in this cover would compromise regional conservation objectives, consistent with ecologically sustainable management.”

Consistent with the rejection of soil science, NSW government agencies have always rejected the management that is essential for the health of forest ecosystems. The focus on the “on-going protection of threatened species” in state forests downplays the need to conserve all species in forests across tenures because they are essential for the health of the forest ecosystem. There is no substantive evidence to demonstrate regulatory regimes for environmental planning have or will protect water, soil and biodiversity, either in regrowth forests or elsewhere. Rather, the following quote from Forestry corporation¹ reflects how, through observation, it determines forest growth and health -

“ . . . The structure of the forest is reflected by the proportion of trees of different age and size over a given area and can be used to interpret the overall health of an area.”

The corporation goes on to turn observation into conjecture, that forest decline is temporary and seemingly may not reflect the overall health of the area suggesting -

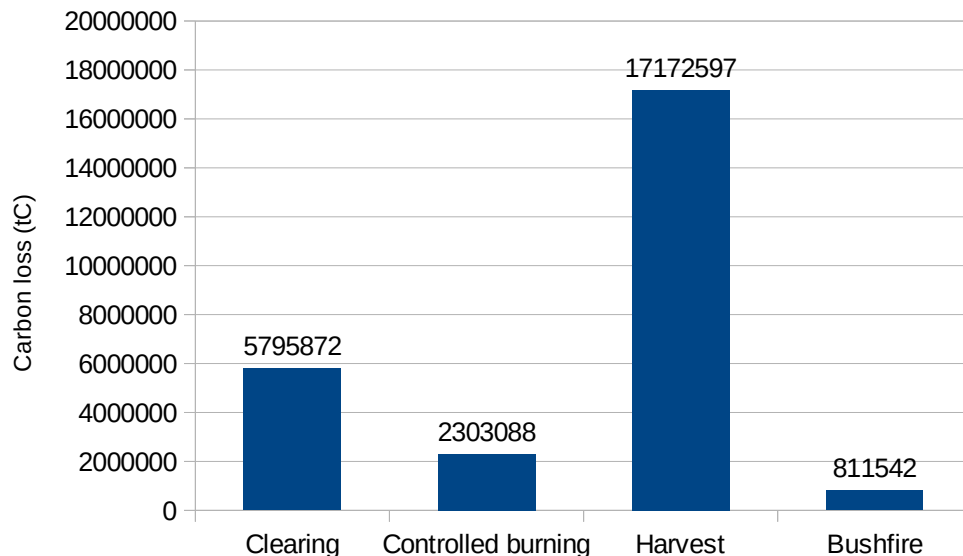
“ . . . Dieback in trees occurs naturally as a result of short-term adverse physical impacts such as drought, unseasonably high soil moisture or damaging wildfire. Dieback may also be due to natural biological factors such as insect plague and spread of fungal disease. Dieback in native forests is not common, especially over large areas, and is often followed by tree recovery or regeneration when conditions ameliorate.”

¹https://www.forestrycorporation.com.au/__data/assets/pdf_file/0003/1443567/FCNSW0880-FMP_2022-27020223.pdf

Further the corporation differentiates types of forest decline suggesting -

“ . . . Chronic decline may occur when long-term environmental changes impair tree health. Increasing decline, including canopy vigour reduction through lack of semi-regular low-intensity fire and bell-miner associated decline, has been observed throughout dry and moist eucalypt forests, particularly in coastal areas. Significant areas of forest in the coastal region of NSW, across all tenures, are thought to be susceptible to this sort of decline and many areas are showing signs of decline.”

Soil organic carbon is generally considered to be a necessary input to maintain soil fertility. The NRC's 'Create your own insights - NSW forest carbon' indicates "Fire is the key driver in carbon loss in NSW forests."² The following chart for the Eden region reflects the data (whole numbers) for carbon loss between 1990 and 2018. For this time period, the individual carbon loss from harvest, clearing and controlled burning all significantly exceed carbon loss from bushfire.



As a member of the FRAMES technical committee for the Eden and Southern Regional Forest Agreement assessment processes, I have no reason to doubt the credibility of the input from a particular Eden forester³. In essence this input was about how long integrated logging could last, due to the depletion of the soil resource. Clearly inconsistent with ESFM, integrated alternate coupe logging in the silvertop ash/stringy bark forests, mostly south of Eden, could be sustained for perhaps 3 to 4 cycles. However, that was 25 years ago and it now seems unlikely that economically viable operations will be possible beyond the first rotation of the second cycle.

A key gap in the regrowth forest monitoring program is the 25 years of data that the NSW government should have been legally bound to collect, under Part 3 of the Eden and other RFA agreements. Namely-

95.6 In accordance with clause 46(f) develop and implement an inventory system for regrowth forests and review the calculation of Sustainable Yield, using methods consistent with Attachment 11 and the principles and processes used in the Forest Resource and Management Evaluation System (FRAMES), in time for the first RFA review;

The lack of this data is a result of a regulatory regime that doesn't consider a broad-scale reduction in soil fertility or how this reduction is manifested. It is arguable that the major gap in both the monitoring program and regulatory regime is an unsubstantiated belief that a reduction in soil fertility, including sub-soil dispersion and associated reduction in soil Water Holding Capacity, is not associated with either short-term dieback in trees or chronic forest decline. While Forestry corporation and its regulators continue to reject the science which provides an understanding these issues, any outcomes from a water quality monitoring program will be beyond their understanding.

² <https://www.nrc.nsw.gov.au/news/34-forest-carbon-insights>

³ Bridges, R. (1983) *Integrated Logging and Regeneration in the Silvertop Ash-stringybark Forests of the EdenRegion*. Research paper No.2 Forestry Commission of N.S.W.

https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0009/389556/Integrated-Logging-and-Regeneration-in-the-Silvertop-Ash-Stringybark-Forests-of-the-Eden-Region.pdf

2. Is the monitoring program and its findings clear and easy to understand, or can this be improved?

While the relationship between the monitoring program and the Coastal IFOA is reasonably clear. Insofar as 'the minimum thresholds of environmental protection to ensure threatened plants, animals, communities and the protection of water quality', were never likely to ensure protection either before, during or after native timber harvesting operations.

It is difficult to understand if or how the monitoring sits with regard to the management of threatened species habitat, given the natural inter-relationship between native flora and fauna, that some believe is essential for the health of forest ecosystems, is not a consideration.

3. Are there any other ways we can improve the monitoring program?

The responses to stakeholder feed back indicates "Climate change will be considered as part of landscape trends monitoring". In 2019 the NSW Threatened Species Scientific Committee (TSSC) decided that extensive forest canopy die-back associated with dry weather and drought, (aka. chronic forest decline) is a result of all Key Threatening Processes, including bell-miner associated die-back and climate change⁴.

Unfortunately, the TSSC was unable to provide any detail, credible or otherwise, in support of its decision. The NSW FMIP Steering Committee may be in a similar position, given sub-soil dispersion is not specified in the CIFOA and notions of adaptive management have long excluded credible and/or indisputable environmental science (ie. the theory/ law of gravity).

From that perspective, any potential improvements to the monitoring program would appear to quite limited.

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⁴ <https://bertramr.files.wordpress.com/2019/09/ktp-dadd-nsw-tssc-response-september-2019.pdf>