THE INSTITUTE OF FORESTERS OF AUSTRALIA
[redacted] Melbourne, Victoria 3001
[redacted]
[redacted]
W: www.forestry.org.au
ABN: 48 083 197 586

INSTITUTE OF FORESTERS OF AUSTRALIA

8 November 2019

Submission to NSW Coastal IFOA Monitoring Program

The Institute of Foresters of Australia (IFA) welcomes the opportunity to contribute to the New South Wales Integrated Forestry Operations Approvals monitoring program. We also refer you to our previous (July 2018) submission on the IFOA Review process.

About The Institute

The IFA has been the peak professional body representing professional forest managers, scientists, researchers, academics and other related professionals since 1935. As such, we are uniquely qualified to contribute to the development and review of standards for forest management operations including, but not limited to, timber harvesting.

The full list of Objects of the Institute are enshrined in its Constitution available HERE

They include to:

- Further the science and technology and understanding of sustainable forestry in all its forms.
- Develop and represent the issues around best practice sustainable forestry standards to governments, regulators, other professional associations and the community.
- Promote consistent standards of regulation at all levels for the achievement and maintenance of standards for sustainable forestry.
- Promote high standards of competency, professionalism and ethical conduct in providing professional services in the field of sustainable forestry
- Provide guidance to individuals involved in the supply of services in sustainable forestry and
- Provide information and liaison at government and other enquiries, investigations and forums concerning the field of sustainable forestry.

The IFA also has numerous policy statements on various aspects of forest values, management and uses. These represent a consensus view of professional foresters, are free of the beliefs and convictions of either political parties or industry lobby groups and are publicly available on the IFA website. It is clear from these policies that the IFA supports balanced use of public forests to optimise and balance the many benefits provided by them. It is certainly not, as is often imagined, an apologist for the timber industry or any other narrow interest group. The IFA also supports the International Convention on Biological Diversity (CBD) to which Australia is a signatory, click HERE to view. The Institute is therefore vitally concerned with standards of professional forestry in Australia and sees it as imperative that Government agencies charged with the regulation of standards are staffed with appropriately qualified officers.

THE INSTITUTE OF FORESTERS OF AUSTRALIA
[redacted] Melbourne, Victoria 3001
[redacted]
[redacted]
W: www.forestry.org.au
ABN: 48 083 197 586

Environmental Goals and Outcomes

In the late 1990s, around $200 million was invested on comprehensive regional assessments to provide a sound foundation for the NSW RFAs and IFOAs. In the 20 years since there have been no significant advances, in either understanding or knowledge. In the absence of any serious commitment to monitoring and reporting, the original assumptions about the benefits of a CAR reserve systems and a heavily regulated forestry sector remain untested. Similarly, the relationship between the conservation reserve system and other forest values has received little attention.

In the absence of meaningful data on the IFOA's effectiveness, the assumption is that the existing approach is working. The growing number of plant and animal species listed as threatened, however, suggests that investment in the reservation of public land may not be delivering as good a return as was originally envisaged.

Environmental outcomes need to be better researched and defined before prescriptions can be developed to achieve them. Limitations to the IFOA are based on the premise that timber harvesting necessarily compromises environmental outcomes and that the best or only way of achieving such outcomes is to place further restrictions on timber harvesting. Pejorative terms such as "permanently protected" taken to mean withdrawn from harvesting are indicative of this prejudice. The IFA believes that with:

a. better definition of the environmental outcomes being sought,

b. a monitoring program across all tenures, and

c. research into how to achieve the desired outcomes,

more effective management prescriptions can result in improved environmental and timber production outcomes. Those management prescriptions should not, of course be limited to timber harvesting prescriptions nor to timber producing tenures.

The IFA applauds the NSW Government's commitment to cross tenure forest monitoring and mapping. The IFA strongly supports this initiative seeing it as recognition of the need to improve the knowledge base and the importance of looking beyond tenure.

In defining desired environmental goals, due recognition needs to be made of the dynamic nature of forest ecosystems. Ephemeral aesthetic impact on a given site is too often confused with long term sustainability criteria. Media "grabs" and lack of long-term monitoring only enhance this confusion. The concept of permanent protection for individual trees is indicative of this simplistic view.

With over 40,000 years of human management of Australian landscapes, the biota has evolved, especially since the end of the last Ice Age around 10,000 years ago, with constant human intervention, in particular through the use of regular and systematic mild fire. This resulted in complex mosaic spatial patterns of ecotypes but often with quite simple structures and floristic compositions. For example open forests with grassy understoreys were conducive to grazing fauna and have, in many areas been replaced due to lack of regular mild fire, by more complex floristic structure with a mesic, shrubby understorey. While such ecotypes may be more complex in terms of both species diversity and structural complexity, they are not representative of the pre-European landscape. The dominant species are often unhealthy and the build-up of, particularly elevated, fuel loads has led them to be susceptible to intense wildfire.

THE INSTITUTE OF FORESTERS OF AUSTRALIA
[redacted] Melbourne, Victoria 3001
[redacted]
[redacted]
W: www.forestry.org.au
ABN: 48 083 197 586

The Proposed Monitoring Program

1. **Is the proposed monitoring program asking the right evaluation and monitoring questions? How can they be improved?**

The proposed monitoring program appears to concentrate on species occurrence, both native and invasive exotic rather than ecosystem functionality. It also seems to have little or no regard for the dynamic nature of forest ecosystems nor the ephemeral nature of disturbance impacts. Moreover, the proposed program does not clearly include landscape level indicators.

Thus the questions being asked need to recognise that species diversity on all areas at all times is not an appropriate goal in the context of a highly developed system of human land management implemented over many millennia. Rather the aim should be to ensure healthy ecosystems with species abundance and diversity at a landscape level over time. Such an approach would be consistent with one of the objectives for the conservation of forest biodiversity under the JANIS criteria, that is to maintain ecological processes and the dynamics of forest ecosystems in their landscape context.

Complexity and hence species diversity are best achieved by managing for forest values at a landscape scale and by recognising the dynamic nature of ecosystem functionality, rather than aiming to achieve complexity on every hectare at all times. This dictates a monitoring system that covers all tenures and management regimes and that includes indicators at landscape and site level over an extended time frame.

2. **Are the broad monitoring strategies and their indicative design heading in the right direction? How can they be improved?**

The strategies and indicative design concentrate heavily on pre- and post-harvesting surveys. As such they cannot hope to get a picture of the impacts of the broader suite of management practices and interventions across the entire forested landscape.

All tenures and management regimes need to be sampled over an extended time frame in order to properly assess the impacts of land use decisions, management and operational practices including fire management as well as timber harvesting, infrastructure development, recreational activities and other forest uses.

To understand the state and trend of threatened species and threatened ecological communities, it is necessary to monitor the state and trend of contemporary pressures on the environment (habitat fragmentation, invasive species, for example) and historical pressures and also how pressures interact with each other.

With most of the public forest estate now in permanent reserves, it is clear that much of the monitoring effort should be directed to these reserves. The central thrust of public policy on forest conservation has been through the creation of the CAR reserve system and the National Parks estate more generally and yet none of the proposed monitoring program is directed at testing the assumption that defined conservation goals are being achieved through this strategy. This includes monitoring and evaluating the effectiveness of management of native forests within the reserve system as well as the effectiveness of management of forests outside the reserve system in terms of how well they complement the CAR reserve system.

THE INSTITUTE OF FORESTERS OF AUSTRALIA
[redacted] Melbourne, Victoria 3001
[redacted]
[redacted]
W: www.forestry.org.au
ABN: 48 083 197 586

Monitoring needs to be quantitative and objective so as to inform the transparent and defensible setting and review of appropriate thresholds as well as aiding in the development of adaptive management strategies.

3. Are there any other priority issues the monitoring program should focus on?

Within the remaining NSW Forest estate, undoubtedly the greatest post-colonial impact has been through altering the fire regimes under which the forest ecosystems evolved. This has led to fundamental changes in ecosystem health, structure and function. The monitoring program needs to focus on this issue as a priority.

By way of example, a great deal of public money has been expended on response to so called Bell Miner Associated Dieback (BMAD). There is considerable evidence that this condition has been caused through lack of regular burning, leading to floristic and structural changes, leading to an unhealthy tree canopy, leading to psyllid build-up and the bell miner are a symptom of that process. Yet there appears to be little or no research to test that thesis and the monitoring proposal seems to ignore it as an issue.

The issue of dramatically altered fire regimes in post-colonial Australia has also been ignored in modelling pre-1750 vegetation types. In tandem with the monitoring program, research needs to be conducted to develop better models of the landscape at the time of European colonisation as a baseline.

The impact of climate change on threatened species, threatened ecological communities and key threatening processes, and management adaptations needed to address these impacts, should be considered in the MER system.

The monitoring program needs to fully utilise advances in technology as well as historic records to help establish baselines. Some examples spring immediately to mind:

a. Acoustic surveys for koalas and perhaps other species,
b. Lidar to properly map previously logged and unlogged areas – a recognised weakness in the initial reservation process and clearly a weakness in any monitoring of the recovery process following logging impacts,
c. Historic aerial photographs dating back to at least the 1940's,
d. European explorers and settlers records as well as later published works which have used these as primary references, and
e. Forestry Commission Management Plans and other reports dating back over a century.

4. What are the priorities for the detailed design of the monitoring strategies?

The key priorities for detailed design should be that:

a. it samples all tenures over an extended time period so that the impacts of the full suite of management regimes can be assessed rather than the ephemeral effects of individual operations,
b. it focusses on ecological functionality rather than individual iconic species,
c. it uses the best available technology,
d. it accesses historic information in order to critically examine assumptions of long-term impacts of past operations,

THE INSTITUTE OF FORESTERS OF AUSTRALIA
[redacted], Melbourne, Victoria 3001
[redacted]
[redacted]
W: www.forestry.org.au
ABN: 48 083 197 586

e. it includes a critical examination of the conservation status of individual species as well as assumed threatening processes, and
f. in particular, it examines the long-term impacts of altered fire regimes since European colonisation.

Summary

To summarise the IFA's position on the proposed Coastal IFOA Monitoring Program:

1) The IFA's interests are in the scientific management of forests for social, environmental and economic benefits, as such we are well placed to perform a role as an independent arbiter or referee and should not be put exclusively into either an "industry" or "environmental" category;
2) The outcomes being pursued need to be clearly defined by informed consensus so that they can be meaningfully measured across the landscape; and
3) Any meaningful monitoring program needs to cover all tenures and management regimes over an extended time horizon in order to examine the impacts of differences in, and changes to, management prescriptions.