Submission on the Draft Coastal Integrated Forestry Operations Approval

prepared by

EDO NSW
July 2018

About EDO NSW

EDO NSW is a community legal centre specialising in public interest environmental law. We help people who want to protect the environment through law. Our reputation is built on:

Successful environmental outcomes using the law. With over 25 years' experience in environmental law, EDO NSW has a proven track record in achieving positive environmental outcomes for the community.

Broad environmental expertise. EDO NSW is the acknowledged expert when it comes to the law and how it applies to the environment. We help the community to solve environmental issues by providing legal and scientific advice, community legal education and proposals for better laws.

Independent and accessible services. As a non-government and not-for-profit legal centre, our services are provided without fear or favour. Anyone can contact us to get free initial legal advice about an environmental problem, with many of our services targeted at rural and regional communities.

EDO NSW is part of the Environmental Defenders Offices of Australia, a national network of centres that help to protect the environment through law in their states.

Submitted to the NSW Government online at:

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Executive summary

EDO NSW welcomes the opportunity to comment on the draft Coastal Integrated Forestry Operations Approval (**Draft IFOA**), which proposes a new rulebook for public forestry in NSW.

The Draft IFOA is proposed to replace four 20-year-old IFOAs that currently operate in the Upper North East, Lower North East, Southern and Eden regions. The IFOAs regulate logging in State forests and other Crown-timber lands by the Forestry Corporation of NSW (a state-owned corporation) and its contractors.

We are an independent community legal centre specialising in environmental law. Our interest in the IFOA is ensuring that NSW public forestry operations are:

- consistent with the principles of *ecologically sustainable forest management* (**ESFM**)[1] – including that present and future generations have the benefit of productive, functional and biodiverse forests that sustain our unique and endangered flora and fauna;
- governed by a well-resourced and independent regulator, under clear laws and requirements;
- subject to transparent public oversight through access to information, participatory decision-making and access to the courts to enforce the law;
- designed to reduce community conflict around forest values and uses; and
- respectful of the diverse environmental, social and economic values of forests – including their long-term capacity to deliver 'ecosystem services' such as water filtration, oxygen turnover, pollination, carbon storage, recreation and cultural connections – values that traditional economic assessment processes often render invisible.

Our submission is in two parts. **Part A** comments on high-level forestry policy drivers that inform the IFOA. In summary we submit that:

1. **Wood supply policy aims must be urgently and transparently revised.**
2. **Long-term values of healthy forests outweigh short-term costs of buybacks.**
3. **Need for investment and up-to-date understanding of diverse forest values.**
4. **Clearer links needed to ESFM principles, including the precautionary principle.**
5. **Intensive harvesting limits and transitional arrangements allow unsustainable logging levels.**
6. **Inadequate consultation and lack of transparency on important decisions.**
7. **Forestry regulation, agencies and operators must be climate-ready and responsive.**

[1] For a summary of ESFM principles, see the introduction to Part A of this submission below.

Part B comments on the details of the draft IFOA. The structure of this part reflects nine themes in the *Coastal IFOA – Consultation Draft Executive Summary* (May 2018).[2]

High-level concerns with forestry policy settings (Part A of this submission)

The draft IFOA has been in development for over 4 years. Since 2014, the NSW Government's overarching policy aims for redrafting the IFOAs have included:

- increased clarity, consistency and enforceability
- reduced compliance costs
- 'no erosion of environmental values' and
- 'no net reduction in wood supply'.

A range of evidence has since emerged to demonstrate that two original policy aims of the IFOA remake – to maintain environmental values and wood supply levels – are 'not mutually achievable'.[3] Yet despite expert findings that environmental standards and wood supply levels are in fundamental conflict, to date there has been no reconsideration of the overarching policy aim of 'no net reduction in wood supply'.

Given widespread recognition of the need for improved forestry regulation and outcomes that reflect a more environmentally sustainable industry, we **strongly recommend** the aim of 'no net loss to wood supply' be reconsidered.

We note the following further concerns with high-level forestry policy settings:

- **We do not support** the Government's decision to make-up potential wood supply shortfalls by **remapping Old Growth Forest** when alternatives such as buybacks are available. The long-term values of healthy forests for the people of NSW are highly likely to outweigh the short-term costs of buybacks.
- There is a lack of **up-to-date understanding of the diverse values** of NSW coastal forest resources – environmental, social and economic – including the value of **'ecosystem services'** provided by in tact and/or harvested forests.
- There is a related lack of **regional ecosystem assessments** to determine the status and capacity of threatened species and forest ecosystems, and to determine the adequacy of the protected area network to provide refuge and habitat amidst increasing threats and pressures.
- While embedding the **principles of ESFM** in legislation is a positive step, the Draft IFOA does not demonstrate how the **precautionary principle** and other aspects of ESFM are given effect in operational planning and management.
- Some of the Draft IFOA settings illustrate the conflict between the two overarching policy objectives. As noted below, we are particularly concerned about unsustainable logging levels being adopted via **intensive harvesting** allowances and proposed **transitional arrangements**.

[2] In particular sections 4.1-4.9. See: https://engage.environment.nsw.gov.au/29948/documents/77906.
[3] NSW Natural Resources Commission (NRC), *Advice on Coastal Integrated Forestry Operations Approval remake* (November 2016), p 2.

- The Government has not explained how **public submissions and input** on the 2014 issues paper have shaped the Draft IFOA. Since then, opportunities for public engagement have been unduly short, infrequent or non-existent. By early 2018, intersecting consultations and pre-emptive decisions on the NSW Regional Forest Agreements have caused confusion and frustration. This has hindered public faith in the subsequent IFOA consultation process.
- There is no clear Government policy response to prepare for the impacts of **climate change** and fire regimes on the State's forest ecosystems or wood supply – risks that are highlighted in the NRC's review (2016) and the NSW RFA review (2018).

These are inextricably linked to the Draft IFOA's outcomes and detailed settings discussed in **Part B**. Below we outline key positives and negatives of these settings.

Positive aspects of the Draft IFOA – settings to retain and strengthen

A new IFOA presents an opportunity to improve the clarity and enforceability of forestry regulation, a more logical structure, increase the consistency of rules and settings, and – depending on how stringent and effective the final settings are – an opportunity to adopt modern best practice forestry management and governance.

Given the acknowledged flaws and age of the rules in various existing IFOAs, it is important to note that maintaining (or 'no erosion of') environmental standards – or even an improvement on existing practices – may not mean that a proposed IFOA setting is best practice or even acceptable environmental management in 2018.

With that qualification, in brief we consider the following aspects of the Draft IFOA as **positives:**

- A clearer structure that links binding outcomes, conditions and protocols.
- Clearer definitions, more consistent terminology and clearer rules – which may increase enforceability, reduce misinterpretation and disputes, and reduce compliance and investigation costs.
- Objectives that refer to the principles of ESFM (provided these principles are operationalised in the proposed Conditions and Protocols of the IFOA).
- Adoption of new and digitised inputs and tools, such as LIDAR (laser) stream-mapping, Environmentally Sensitive Area mapping and updated threatened ecological community mapping (noting that the imperfect nature of predictive mapping requires quality assurance and complementary protections).
- Provision for updated environmental protection settings at multiple scales (which we recommend be significantly strengthened below).
- Increased data collection, data quality and reliability.
- Commitments to greater public access to forestry and environmental data.
- Greater focus on monitoring, evaluation, reporting, continuous improvement and adaptive management (subject to future monitoring plans and programs).

Negative aspects or risks of the draft IFOA – settings that must be addressed

In brief, we note the following **significant concerns** with the draft Coastal IFOA:

- The overarching policy goal of **'no net reduction in wood supply'** constrains the ability to act in accordance with ESFM principles.
- This has led to proposals for **unsustainable extraction limits and short-term transitional settings** that compromise long-term ecological outcomes and increase costs for future generations of forest managers and communities.
- There is a **lack of monitoring and data** on environmental outcomes and trends from past forestry practices under 20 years of the existing IFOAs, on which the revised IFOA should be based. Threatened Species Expert Panel members noted particular risks of data gaps on the impacts, scale and intervals of intensive harvesting.[4]
- Given this lack of evidence, the draft IFOA settings fail to adopt a sufficiently **precautionary approach** to serious or irreversible risks of continued decline or extinction of threatened species and forest ecosystem function.
- The widespread adoption of controversial **intensive harvesting** practices and some proposed harvesting limits (including intensive and mixed harvesting) may propose significant risks to biodiversity and ESFM, without adequate complementary and compensatory protection measures (for example, an expanded reserves network).
- Inadequate **tree retention rates** and thresholds in harvesting areas, including for hollow-bearing trees and recruit trees, koala browse trees and giant trees.
- **Stream buffer protections** should be maintained at 10m, not reduced to 5m. This reflects Expert Panel recommendations.[5] While we welcome the fact that new LIDAR mapping has discovered additional drainage lines, this is not a sound rationale for reducing buffers around sensitive ecosystems.
- A five-year **transitional period** that allows **large-scale coupes and shortened return times**, based on a legally-disputed practice of intensive harvesting, is highly problematic. We are concerned that this transitional arrangement prioritises short-term wood supply and jeopardises environmental outcomes, in a way that is inconsistent with ESFM.

These aspects should be addressed as a priority alongside our high-level comments (under **Part A**) before any new Coastal IFOA is finalised.

[4] Threatened Species Expert Panel, Remake of the Coastal IFOA – Final Report (2018), p 8.
[5] The Threatened Species Expert Panel (2018, p 8) generally supported 'prioritising streamside areas for retention… particularly where they have been protected over previous harvest cycles.'

Recommendations summary

Part A – Comments on high-level forestry policy settings that inform the IFOA

1. We strongly recommend the aim of 'no net loss to wood supply' be reconsidered, and that the costs of timber quote buyback options (and related policy measures) be transparently investigated and publicly consulted on.

2. We do not support the Government's proposal that wood supply shortfalls could be made up by remapping Old Growth Forest. We recommend the Government suspend its decision, and consult publicly on this proposal.

3. We recommend:
   - conducting large-scale and regional assessments of the full range of social, economic and environmental values of NSW forests (including existing and potential value of *ecosystem services* such as water and carbon storage);
   - that the desired 'environmental values' and long-term forest outcomes be better defined, including with local communities, experts and public input;
   - the new IFOA should require that environmental protections are *improved*; and
   - IFOA settings should required to be consistent with 'threat abatement plans' and minimise contributions to all 'key threatening processes' (such as loss of hollow-bearing trees, climate change and invasive species).

4. Explicitly embed linkages to principles of Ecologically Sustainable Forest Management (**ESFM**) in IFOA Outcomes, Conditions and Protocols (including the precautionary principle).

5. Revise the proposed transitional arrangements. If intensive harvesting is permitted, transitional arrangements must not expand the maximum coupe size or shorten the minimum return time to adjacent coupes. Any verified impact on wood supply (shortfall) should be accounted for in wood supply buybacks.

6. Legislate an enforceable 2-year timeframe to review any new IFOA's performance.

7. Any new IFOA and wood supply agreements must take full account of environmental, social and economic risks of climate change. This includes demonstrable actions to:
   - maintain ecosystem diversity, quality and capacity to adapt to change
   - provide for the needs of future generations;
   - support biodiversity conservation in the context of a changing climate;[6]
   - fully quantify greenhouse gas emissions from land and forestry sectors – with particular focus on carbon stocks and flows from NSW public forestry;
   - reduce emissions through conservation and enhanced carbon stocks; and
   - adapt forest use and conservation to climate change impacts.[7]

[6] Consistent with the objects of the *Biodiversity Conservation Act 2016* (NSW), section 1.3.
[7] Consistent with Article 5 of the 2015 Paris Agreement under the Climate Change Convention.

Part B – Detailed settings of the Draft Coastal IFOA

IFOA structure and 'outcome-focused' approach

8. We **support** a structure that links together a clear hierarchy of outcomes, conditions and protocols.

9. Outcomes statements should refer to tangible indicators that link to and demonstrate ESFM.[8]

10. Define strategic environmental outcomes for forest structure, health, biodiversity and threatened species recovery (in accordance with ESFM principles).

11. Establish baselines and targets via regional ecosystem assessments.

12. Outcomes statements should address climate risk management and adaptation.

13. See further recommendations on outcomes statements under specific themes.

Multi-scale landscape approach

14. IFOA settings should be strengthened in favour of greater environmental protection, and informed by regional ecosystem assessments. This should include a review of the adequacy and capacity of the protected areas network.

Harvesting practices and limits

15. We do not support the Draft IFOA's endorsement of significant levels of intensive harvesting (heavy STS/regeneration harvesting).

16. Remove intensive harvesting from the Draft IFOA unless and until the scientific evidence indicates this method is consistent with ESFM principles, conserving and enhancing the biodiversity of NSW forests, and threatened species recovery.

17. However, if intensive harvesting is retained under the Draft IFOA, we recommend it be further limited by:

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[8] For example:
conservation of biological diversity (biodiversity) and threatened species recovery;
maintenance of productive capacity of forest ecosystems;
maintenance of ecosystem health and vitality;
conservation of soil and water resources;
maintenance of forest contribution to global carbon cycles;
maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of society;
the legal, institutional and economic framework for forest conservation, sustainable management and governance.

- removing the unsustainable five-year transitional arrangements that increase coupe size to 60 ha and reduce return times to seven years;
- doubling proposed return times to adjacent coupes to at least 20-25 years;
- halving the total number of hectares for intensive harvesting per year, from 2200 to 1100ha;
- an upfront regional ecosystems assessment of the area between Grafton and Taree that is proposed for intensive and mixed harvesting, to assess environmental values, condition and capacity to sustain harvesting;
- establishing a mandatory, well-resourced monitoring and annual reporting process for any intensive harvesting (past and future) to determine whether it is consistent with ESFM and improving environmental values.

18. Increase the basal area retention limits for selective harvesting in both regrowth and non-regrowth forests. IFOA outcomes and conditions should also clearly define the outcome that the basal area limits should deliver.

19. Use comprehensive monitoring, evaluation, reporting and improvement (**MERI**) to ensure the environmental impacts of future harvesting practices are identified, reported on and adaptively managed.

20. Amend the Draft IFOA to include clear and mandatory triggers for adaptive management responses (including revisions to limits, conditions, forest management and regulatory responses).

Wildlife habitat, tree retention and threatened species protections

In summary, we **recommend**:

21. If the **clumping approach** is adopted, permanently protect at least 20 per cent of each local landscape area (instead of 10-13 per cent in the Draft IFOA). This may be comprised of:
    - Higher minimum percentages of **wildlife habitat clumps** at the *local landscape area* scale (cf Draft IFOA setting of five per cent).
    - Higher minimum percentage of **tree retention clumps** in each *compartment* (cf Draft IFOA setting of five to eight per cent);

22. **Environmentally Significant Area** protections should be separate and additional to tree retention clumps (Protocol 22.1(2)(b) suggests an overlap).

23. **North Coast koala protections** should include higher levels of tree retention. This is consistent with a precautionary approach that reflects the serious or irreversible threat of local extinctions and the uncertainty of predictive maps. For example:
    - retain at least 25 koala browse trees per hectare in areas mapped as ‘high’ likelihood and habitat quality by both OEH and DPI;
    - retain at least 20 browse trees per hectare in areas mapped as high/moderate by OEH and DPI;
    - retain at least 15 browse trees per hectare in areas mapped as moderate by both OEH and DPI; and

- increase minimum ‘retained tree’ diameter from 20 to 25cm (DBHOB).

24. **Hollow-bearing trees** – increase minimum retention requirements in order to minimise the loss of hollow-bearing trees as a ‘key threatening process’:
    - The minimum retention rate should be higher than five per hectare;
    - Strengthen tree retention clump settings so that both hollow-bearing trees *and* potential future hollow-bearing trees must be retained (‘and’ not ‘or’ – see for example Protocol 22.1(2)(a)).
    - Establish a monitoring program for hollow bearing trees, including mandatory records of the number and percentage of trees removed and retained, and tracking occupation and loss after retention.

25. **Giant tree protections** – adopt a stronger uniform retention standard that reflects their rarity in the landscape and multiple ecological and social values:
    - Remove the proposed larger threshold that would permit giant blackbutt or alpine ash trees (diameter 140-160cm) to be harvested.
    - All forest trees of any species with a stump diameter of 140cm or more must be retained as giant trees.

Landscape protections

26. Maintain small stream buffer protections at a consistent 10m (instead of being reduced to 5m or a mixture of hard and soft buffer zones).

27. We support the use of ‘Ground Protection Zones’ where they provide additional protection compared to existing buffers.

28. We strongly support continuing existing protections (at a minimum) for rainforests, ridge and headwater habitat, rock outcrops and forest owl landscapes, as well as Old Growth Forest.

29. The new IFOA monitoring program should independently assess the persistence and condition of important landscape features over defined times.

30. Embed the principle of continuous environmental improvement throughout any new IFOA to respond to such monitoring.

31. For roads and crossings, outcome statements and operating conditions should further aim to avoid and minimise habitat fragmentation and roadkill.

Environmentally Significant Areas (ESAs) and boundary rules

32. High Conservation Value Old Growth Forest should be a ‘category 1’ ESA.

33. We strongly support the list of excluded activities in category 1 ESAs in Condition 98.1.

34. The minimum exclusion zone width for wetlands should be 20 metres, whether or not the wetland's size is *less* than 0.5ha, or between 0.5 to 2ha.

35. We recommend clarifying a range of detailed matters in the draft Conditions.

Improved mapping and technology

36. We strongly support detailed requirements for digitised mapping, including retained trees, environmentally sensitive aras and exclusion zones.[9]

37. We recommend the IFOA Conditions require the use of 'best available knowledge', 'best available technology' and 'adaptive management' to achieve 'continuous improvement in environmental standards and outcomes'.

38. Define these terms in the Protocols based on EPA and NRC advice.

39. Require GPS tracking of all vehicles and machinery, and provide that data to the regulator.

40. Clarify that Condition 124 requires field mapping of unmapped Old Growth Forest as well as rainforest.

Monitoring framework

41. Adopt the EPA's 2016 indicators as a starting point for achieving and applying the principles of ESFM.

42. Develop additional indicators to reflect principles (b) to (e) of the ESFM definition under the *Forestry Legislation Amendment Act 2018*.

43. Support the Waller RFA Review recommendation to engage citizens in monitoring.

Regeneration standards

44. Recognise that successful regeneration for timber supply purposes and for biodiversity purposes may be different, and need to be measured differently.

[9] See Draft IFOA Conditions, Chapter 6 – Mapping; see also Draft IFOA Executive Summary, 4.7.

Part A - Comments on forestry policy settings that inform the IFOA

To contextualise and comment on the Draft IFOA settings, we first need to comment on high-level policy aims.

In this part we make the following comments to provide policy direction for any IFOA:

1. ***Wood supply policy aims must be urgently and transparently revised***
2. ***Long-term values of healthy forests outweigh short-term costs of buybacks***
3. ***Need to invest in an up-to-date understanding of diverse forest values and ecosystems to inform the future of forests***
4. ***Clearer links needed to principles of Ecologically Sustainable Forest Management (ESFM), including the precautionary principle***
5. ***Intensive harvesting limits and transitional arrangements allow unsustainable logging levels***
6. ***Inadequate consultation and lack of transparency on important decisions***
7. ***Forestry regulation, agencies and operators must be climate-ready and responsive.***

In short, we submit that the long-term value of in tact, climate-resilient forests outweighs the short-term costs of reducing wood supply quotas to sustainable levels.

1. Wood supply policy aims must be urgently and transparently revised

In EDO NSW's view, the 'two pillars' of the Government's forestry policy and the IFOA remake must be revised immediately – to effectively apply the principles of ecologically sustainable forest management (**ESFM**) and improve environmental outcomes to socially acceptable levels.

ESFM principles that underpin national and state forestry law and policy include:[10]

(a) maintaining forest values for future and present generations;
(b) ensuring public participation, accountability and transparent information about forestry operations;
(c) incentives for voluntary compliance and best practice environmental standards;
(d) applying best available knowledge and adaptive management in forest management; and
(e) applying the *precautionary principle* to prevent harm (i.e. responding to risks of serious or irreversible environmental harm despite scientific uncertainty).

Since consultation in 2014, a range of evidence has emerged to demonstrate that two of the original policy aims – maintaining environmental values and wood supply

[10] Paraphrasing the Government's *Forestry Legislation Amendment Act 2018* (assented July 2018).

levels – are in the words of the NRC, 'not mutually achievable'.[11] This evidence includes the following five examples.

a. Not mutually achievable

First, when the NRC was commissioned in 2016 to resolve the stalemate in IFOA negotiations, it reviewed the options for IFOA settings and concluded that the two key policy commitments were 'not mutually achievable'.[12] The NRC recommended considering policy alternatives, including quota buybacks, to alleviate both current and future timber supply issues and associated ecological concerns.[13] Unfortunately this important finding is not reported in the Executive Summary of the Draft IFOA.

b. Expert warnings about unsustainable harvesting levels and practices

Second, multiple members of the Threatened Species Expert Panel gave the Government strong advice that the proposed IFOA settings attempt to legally endorse an unsustainable method of forestry management, with medium and long-term impacts on wood supply, forest structure and the survival of threatened species.

This includes advice from EPA staff ecologists that:[14]

> *harvesting practices proposed … will severely degrade these forests to an artificial and simplified arrangement with severely reduced and limited biodiversity values. … Continuing down this path will have long term deleterious environmental outcomes for the public forests of NSW in order to limp across the line and meet the final years of the wood supply agreements.*

OEH ecologists also expressed strong reservations about proposed IFOA settings, harvesting levels, and the lack of scientific evidence to demonstrate acceptable environmental outcomes. The primary recommendation of OEH ecologists on the Expert Panel was that, in order to demonstrate the proposed IFOA settings could sustain threatened fauna populations and achieve ESFM: '…a thorough assessment

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[11] NRC, *Advice on Coastal Integrated Forestry Operations Approval remake* (November 2016), p 2.

[12] Natural Resources Commission (NSW), *Advice on Coastal IFOA Remake* (Nov. 2016),

[13] Natural Resources Commission (NSW), *Advice on Coastal IFOA Remake* (Nov. 2016), p 9:
The current supply issues are expected to increase in future as the impact of climate change places additional stress on native forests, increasing the risks to forest health and both conservation and production objectives.

[14] B. Tolhurst in Threatened Species Expert Panel, *Remake of the Coastal IFOA- Final Report* (2018):
…the underlying driver of the wood supply agreements fundamentally restricts any chance of a balanced approach and I can see the environment being the inevitable loser in the equation. Sustainable forest management requires maintenance of forest stand structure complexity and heterogeneity to allow for biodiversity conservation. This key point seems to have been given up on in this review process with harvesting practices proposed that will severely degrade these forests to an artificial and simplified arrangement with severely reduced and limited biodiversity values. …
Continuing down this path will have long term deleterious environmental outcomes for the public forests of NSW in order to limp across the line and meet the final years of the wood supply agreements. This will be entirely at the expense of these forests. Recovery to some level of 'natural' ecological function will be decades and centuries, possibly without many species that will not survive this current and ongoing impact.
I still don't accept as a basic premise that the heavy form of harvesting (Heavy STS/Regeneration Harvesting) is an appropriate form of management for native forests if you aim to look after an acceptable level of environmental values.

of the adequacy of the protected area network at a regional (or at least sub-regional) scale needs to be undertaken...'[15]

c. Majority of submissions in 2014 expressed community concern

According to the official summary of feedback on the IFOA issues paper (2014):[16]

> *Over half of submissions commented on the issue of timber supply in NSW. The majority of stakeholders commented that the objectives of timber supply agreements were incompatible with the protection of forest values and that the NSW Forest Agreements were unsustainable. Some commented that timber supply contracts should be reviewed prior to the IFOA remake or be included in the IFOA remake.*

Timber supply was one of several important issues – including climate change – that the Government deemed 'out of scope' at the time, referring instead to the RFA process (which is now also under negotiation with the Commonwealth Government).

The fact that community views do not accord with particular Government policy positions does not make those community views 'out of scope'.

d. Wood supply reviews have recommended buybacks

The NRC's IFOA review (2016) and at least two independent reviews of wood supply agreements (2013 and 2017) have recommended buying back timber quota to ease pressure on forest resources and ecosystems.

The Government agreed to a 2013 committee recommendation to reduce wood supply, by buying back a quota of 50,000 cubic metres per year up to 2023.

In 2017, a further review by GHD consultants recommends 'that the NSW Government consider a further WSA buyback…' for the North Coast.[17] It further recommends:

> *a review of the future resource availability in the South and North Coast supply areas in terms of indicative grade, species and location is undertaken. The resource available in both the next five-year period and the future five-year periods needs to be estimated by FCNSW and made available to the industry.*[18]

e. RFA review recommends contemporary review of native forest industry

The independent review of the NSW Regional Forest Agreement (**RFA**) performance from 2004-2014, by Ewan Waller, was belatedly commissioned in late 2017 (**Waller Review**).

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[15] See M. Andren and J. Turbill in Threatened Species Expert Panel, *Remake of the Coastal IFOA - Final Report* (2018), part 8 (p 48).
[16] EPA and NSW Government, *Remake of the Coastal Integrated Forestry Operations Approvals: Summary of feedback* (July 2015), '6.1 - Timber supply issues', p 23.
[17] GHD, *NSW Department of Primary Industries – Review of Coastal Hardwood Wood Supply Agreements, Final Report*, March 2017, 'Recommendations' pp 22-24 (recommendation 8).
[18] Ibid (recommendation 2).

The Waller Review was delivered to Government on 1 April and released during the IFOA consultation period. Among other things, it recommended that NSW and the Commonwealth:

- *conduct a contemporary review of the native forest timber industry considering the effect of climate change, the overall conservation status of the forest, the socio-economic position of relevant rural communities and support for the industry;*[19]
- *ongoing analysis of the socio-economic environment linked to the forest estate and fully evaluate the consequences of any change in forest use*;[20]
- *that NSW clarify arrangements for monitoring, evaluation and reporting on conservation values within the [Comprehensive Adequate and Representative] reserve system, including a review of performance measures….*[21]

In summary, considering these evidence-based reviews and public submissions, there is a strong rationale for investigating and revising the aim of maintaining wood supply.

We **do not support** the Government's policy aim for 'no net loss in wood supply' because it automatically excludes a range of policy options, including timber quota buybacks, which may well lead to superior environmental and other industry outcomes.

We **strongly recommend** the aim of 'no net loss to wood supply' be reconsidered, and that the costs of timber quote buyback options (and related policy measures) be transparently investigated and publicly consulted on.

2. Long-term values of healthy forests outweigh short-term costs of buybacks

We **do not support** the Government's proposal that wood supply shortfalls could be made up by remapping Old Growth Forest. If Old Growth mapping accuracy is an issue, it should not be dealt with through the prism of maximising wood supply from currently protected forests.

We are also concerned that the Government adopted the NRC's 2018 Old Growth remapping proposal without public consultation; and nor has it sought public comment on that proposal during the IFOA consultation. This is an example of important decisions pre-empting public consultation and transparency.

We submit that there is an urgent need to reassess environmental trade-offs against wood supply priorities under the IFOA remake, noting the following additional factors:

[19] E. Waller, Independent review of the report on progress with the implementation of the New South Wales Regional Forest Agreements for the second and third five-yearly reviews 2004 - 2014 - *A report to the Commonwealth of Australia and the State of New South Wales, to be tabled in Parliament* (April 2018), section 2.3.2 (recommendation 10). Available at: http://www.agriculture.gov.au/SiteCollectionDocuments/forestry/rfa/independent-review-nsw-rfa-5-yearly-review-2004-14.pdf, accessed June 2018.
[20] Waller Review (April 2018), section 2.3.7 (recommendation 6).
[21] Waller Review (April 2018), section 3.4 (recommendation 8), directed at NSW Government.

- Areas mapped as Old Growth have been protected for decades as a result of hard-won local community campaigns. They are a key source of hollow-bearing trees and valuable habitat that reduce key threatening processes, and provide an insurance policy against over-harvesting elsewhere.
- There is also a risk that remapping Old Growth Forest could validate past illegal logging practices, particularly given poor monitoring and compliance.
- There is widespread recognition that the existing IFOA rules are outdated and difficult to enforce, meaning any new IFOA must make serious improvements.
- The EPA and NRC have found that past and current forestry operations – including intensive harvesting – are neither best practice, nor necessarily good practice.[22] This means environmental values continue to erode over time, and could take 'decades and centuries' to recover.[23]
- During the last 20 years of the existing IFOAs, environmental values were neither clearly defined nor effectively monitored.[24]
- *State of the Environment* reports and other studies show that NSW threatened species including koalas continue to decline, and face increased pressures that threaten their prognosis.[25]
- The law requires NSW forestry operations to accord with the precautionary principle (and other ESFM principles) – which means taking action to avoid serious or irreversible environmental impacts despite a lack of scientific certainty.
- Hundreds of submissions to the 2014 IFOA consultations reflect that the NSW community supports high environmental standards, protections and values.[26]

As noted above, there are alternatives to remapping Old Growth Forest to log areas where mapping is outdated. Easing the pressure on wood supply is likely to deliver higher long-term environmental outcomes, a more sustainable industry, more cohesive social benefits, reduced conflict and positive community outcomes.

In our view, the long-term values of healthy forests are highly likely to outweigh the short-term costs of buybacks.

[22] See NRC (2016), p 35
[23] B. Tolhurst (EPA), Threatened Species Expert Panel, *Remake of the Coastal IFOA – Final Report* (2018).
[24] NRC (2016), p 38
[25] See for example, EPA, *NSW State of the Environment report* (2015), Biodiversity chapter; see also M. O'Kane, *Independent review of the decline of Koala populations in key areas of NSW* (2016). See also EPA, *NSW State of the Environment 2015*, Chapter 12 'Threatened Species' Indicator: Poor.
[26] EPA and NSW Government, *Remake of the Coastal IFOAs – Summary of feedback on the discussion paper* (July 2015).

3. Need to invest in an up-to-date understanding of diverse forest values and ecosystems to inform the future of forests

Given the antiquated nature of the existing IFOAs, the 2014 commitment to 'no erosion of environmental values' is the bare minimum that could be expected. Yet as the NRC (2016) notes: 'the current IFOA approach does not make the desired environmental outcomes explicit.'

Exacerbating this lack of definition, environmental values and indicators have not been effectively monitored or reported on during the current IFOA's operation.[27] For example, EPA and Forestry Corporation could not agree on a baseline or reference practice.

Does no erosion in environmental values mean that negative trends are allowed to continue? For example, NSW koala populations have seriously declined in the past two decades.[28] But we consider it would be socially unacceptable to maintain environmental standards and forestry practices that may perpetuate this decline (by maintaining a negative trajectory).

A direct consequence of these problems is that the Draft IFOA settings have been based to a greater degree on opinion (to fill knowledge gaps), and ultimately compromise (when the regulator and operator could not agree). While the Draft IFOA embraces adaptive management, we are concerned that the risks of proposed settings are borne by the environment.

Several things are needed to clarify environmental values and forest use priorities.

First, NSW needs to invest in a broader, multi-disciplinary understanding of the diverse environmental, social and economic values of forests. Crucially, this includes their long-term capacity to deliver 'ecosystem services' such as water filtration, oxygen turnover, pollination, carbon storage, recreation and cultural connections. Many of these values are rendered invisible by traditional economic valuation processes for forestry.[29]

Second, there is a need for updated, holistic regional ecosystem assessments to determine the status and capacity of threatened species and forest ecosystems –

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[27] As the NRC (2016: 34) noted:

> *Ideally, a comprehensive set of evidence-based datasets on the condition for wood supply and environmental values would be used as the baseline for assessing whether commitments are mutually achievable.*

[28] See for example O'Kane, M., *Report of the Independent Review into the Decline of Koala Populations in Key Areas of NSW* (2016); citing Adams-Hosking, et al. (2016). Use of expert knowledge to elicit population trends for the koala (Phascolarctos cinereus). Diversity and Distributions, 22(3), 249-262. doi: 10.1111/ddi.12400.

[29] See for example, H. Keith, D. Lindenmayer and M. Vardon, 'Money can't buy me love, but you can put a price on a tree', *The Conversation*, 11 October 2017, at http://theconversation.com/money-cant-buy-me-love-but-you-can-put-a-price-on-a-tree-84357. See further Keith et al. "Ecosystem accounts define explicit and spatial trade-offs for managing natural resources" in *Nature Ecology & Evolution* Vol. 1 (November 2017) 1683–1692 at http://www.nature.com/articles/s41559-017-0309-1, accessed July 2018.

and to determine the adequacy of the protected area network to provide refuge and habitat amidst increasing threats and pressures.

Regional ecosystems assessment was the primary recommendation of OEH ecologists on the Threatened Species Expert Panel. For example, in order to demonstrate the proposed IFOA settings could improve outcomes and achieve ecologically sustainable forest management, particularly the proposed increase in logging intensity, OEH experts recommended that:

> *…a thorough assessment of the adequacy of the protected area network at a regional (or at least sub-regional) scale needs to be undertaken … by scientists with expertise and experience in wildlife conservation biology.*[30]

Third, NSW also has a process for listing and abating key threatening processes under the *Biodiversity Conservation Act 2016* (including habitat loss, invasive species, loss of hollow-bearing trees and climate change). More analysis is needed of the potential for existing and future IFOA settings to exacerbate these key threats, and their consistency with threat abatement plans (where those plans exist).

We **recommend**:

- conducting large-scale and regional assessments of the full range of social, economic and environmental values of NSW forests (including existing and potential value of *ecosystem services* such as water and carbon storage[31]) – to better understand how values should be managed for the public benefit;
- on this basis, desired environmental values and future outcomes can be better defined, including with local communities, experts and public input;
- the new IFOA should require that environmental protections are *improved,* to conserve those values and achieve the desired outcomes; and
- IFOA settings should required to be consistent with 'threat abatement plans' and minimise contributions to all 'key threatening processes' (such as loss of hollow-bearing trees, climate change and invasive species).

4. Clearer links to principles of Ecologically Sustainable Forest Management (ESFM), including the precautionary principle

We **strongly support** embedding up-to-date ESFM principles in forestry legislation, as well as any new IFOA outcomes, conditions, protocols, monitoring and reporting.

Before finalising any new IFOA, clearer links are needed between specific principles of ESFM and the outcomes, conditions and operational protocols in the IFOA rules. The EPA's indicators for ESFM provide a good reference point.[32]

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[30] See M. Andren and J. Turbill comments in Threatened Species Expert Panel, *Remake of the Coastal IFOA - Final Report* (2018), part 8 (pp 48-49 and 54).

[31] See Keith, Lindenmayer and Vardon (above), http://theconversation.com/money-cant-buy-me-love-but-you-can-put-a-price-on-a-tree-84357; and Keith et al. *Nature Ecology & Evolution* (Nov 2017)

[32] See Part B of this submission, 'Monitoring framework'. The EPA (2016) criteria include:
conservation of biodiversity (including threatened species status or recovery);
maintenance of productive capacity of forest ecosystems;

With the passage of the Government's Forestry Legislation Amendment Bill 2018 (during the consultation period, which is not ideal), the principles of ESFM are now embedded in the *Forestry Act 2012* (NSW) in connection with IFOAs. ESFM is also generally embedded in the Commonwealth *Regional Forest Agreements Act 2002*.[33]

However, it is less clear how ESFM principles are embedded in the detailed rules of the Draft IFOA. Despite the Forestry Act's specific reference to adopting ESFM principles, the draft Conditions and Protocols scarcely refer to them. For example, there is no explicit requirement to apply the precautionary principle to prevent environmental harm in specific decisions, policy development or processes under the draft Conditions or Protocols.[34] By contrast, the *EPBC Act 1999* (Cth) – which the IFOA replaces, to protect matters of national environmental significance – sets out a range of decisions where decision-makers must apply the precautionary principle.[35]

This is a significant risk given the Forestry Act now requires, as a purpose of IFOAs, that forestry operations are carried out in accordance with ESFM principles. This can be addressed by referring to particular ESFM principles at key stages (and in key conditions and protocols) of any new IFOA. The link between the IFOA and ESFM principles is also important as the NSW and Commonwealth governments negotiate renewed Regional Forest Agreements (**RFAs**).

We **recommend** greater efforts to clearly and explicitly embed linkages to ESFM principles and the precautionary principle within the IFOA Outcomes, Conditions and Protocols. For example, in setting harvesting limits; and levels of retention for koala browse trees and other threatened species habitat; and avoiding and minimising key threatening processes (such as climate change, loss of hollow bearing trees and disease infestation).

We also **recommend** the EPA develop a guideline on applying ESFM principles.

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maintenance of ecosystem health and vitality;
conservation of soil and water resources;
maintenance of forest contribution to global carbon cycles;
maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of society;
the legal, institutional and economic framework for forest conservation, sustainable management (governance).

[33] *Regional Forest Agreements Act 2002* (Cth), s. 4, definition of *Regional Forest Agreement.*

[34] Such as harvesting limits, mapping methods and approvals, threatened species settings, approval of non-standard forestry conditions, or transitional provisions.

[35] *Environment Protection and Biodiversity Conservation Act 1999*, s. 391 (*Minister must consider precautionary principle in making decisions*). Section 3A of the Act defines the precautionary principle: *(b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;*

5. Intensive harvesting limits and transitional arrangements allow unsustainable logging levels

We **do not support** the permissive settings for intensive harvesting or expanded allowances in transitional arrangements under the Draft IFOA Conditions and Protocols. Transitional settings could operate for the first five years (or until the IFOA is reviewed) – potentially a quarter of the IFOA's duration.

The transitional arrangements well exceed the standard settings promoted in the Government's consultation documents. For example, Draft IFOA factsheets refer to headline terms such as limiting 'intensive harvesting' coupes to 45 hectares, yet the transitional arrangements allow for 60 hectare intensive coupes (one per local landscape area). This is *double the maximum size* of intensive harvesting coupes proposed by the EPA for the IFOA.[36]

As a member of the Threatened Species Expert Panel noted:

> *there is a substantial difference between 30 and 60 ha maximum coupe sizes as 60 ha creates a much larger impact area and would result in larger areas of even aged forest. In general, multi-aged forests provide better or more diverse habitat for fauna. The general principle should be to minimise coupe sizes and maximise the time between adjacent harvesting events.*[37]

The factsheets also refer to a return time to adjacent coupes of 10 years. Other OEH experts noted this is 'far too short'.[38] Yet the transitional arrangements reduce this to seven years.

A transitional period that allows large-scale intensive harvesting coupes and shortened return times, based on a legally-disputed practice of intensive harvesting, is highly problematic. We are concerned that this transitional arrangement prioritises short-term wood supply and jeopardises environmental outcomes,[39] in a way that is inconsistent with ESFM.

We **strongly recommend** that the transitional arrangements be strengthened and simplified. If intensive harvesting is permitted, transitional arrangements must not expand the maximum coupe size or shorten the minimum return time to adjacent coupes. If this has a verified impact on wood supply (shortfall), this should be accounted for in wood supply buybacks as recommended above.

We also **recommend** an enforceable, legislated timeframe to review any new IFOA's performance within 2 years of commencement.

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[36] See NRC (2016), 'Table 3: Recommended settings and arrangements for harvesting limits', p 25.
[37] R. Pietsch (OEH representative), *Threatened Species Expert Panel - Final Report* (2018), pp 24-25.
[38] M. Andren and J. Turbill, *Threatened Species Expert Panel - Final Report* (2018), p 52.
[39] See NRC (2016), p 33: 'This transitional arrangement seeks to manage short-term risks to Government's ability to meet current wood supply commitments.'

6. Inadequate consultation and lack of transparency on important decisions

In 2014 the Government held six public workshops and received 877 public submissions to its IFOA Remake Issues Paper.[40] EDO NSW was among those who made detailed submissions.[41] Yet the current consultation documents do not explain how this substantial public input has informed the Government's policy commitments, or shaped the Draft IFOA.[42]

Since the consultation on the 2014 IFOA issues paper, opportunities for public engagement on the draft Coastal IFOA have been short and infrequent at best. Intersecting consultations and pre-emptive decisions on the RFAs in early 2018 have caused confusion and frustration. This has hindered public faith in the subsequent IFOA consultation process.

Government agencies have spent four years progressing the Draft IFOA since the last public consultations. Yet the community was given an initial period of around six weeks to understand and comment on hundreds of pages of explanatory documents and technical reports for the Draft IFOA.[43] The short extension for consultation to 13 July 2018 is welcomed, but insufficient.

It is also apparent that the Government has already taken major decisions around policy direction without further public consultation, including on a controversial proposal to remap Old Growth Forests to make-up for possible wood supply shortfalls. This sort of decision should be subject to reasoned and public debate.

We **recommend** the Government suspend its decision to proceed with remapping Old Growth Forest to supplement wood supply, and consult publicly on this proposal.

[40] EPA and NSW Government, *Remake of the Coastal Integrated Forestry Operations Approvals: Summary of feedback* (July 2015).
[41] EDO NSW, Submission on the Remake of the Coastal Integrated Forestry Operations Approvals (IFOAs)
April 2014 - Download PDF. Also available here (accessed July 2018): https://www.edonsw.org.au/forestry_clearing_vegetation_trees_policy.
[42] Public submissions are not mentioned in the Executive Summary section, 'What informed the preparation of the draft IFOA?' This section notes the Threatened Species Expert Panel, the Trial Report of the Multi-Landscape scale approach, and NRC advice informed the Draft IFOA.
[43] We welcome and acknowledge the publication of these reports, which assisted and informed this submission. This includes the NRC (2016) report and Threatened Species Expert Panel (2018) report.

7. Forestry regulation, agencies and operators must be climate-ready and responsive

New and robust approaches to climate change are needed in any future IFOA (along with any renewed RFAs and reviews of the National Forest Policy Statement[44]).

There is no clear NSW Government policy response to prepare for the impacts of current and future climate change and fire regimes on the State's forest ecosystems or wood supply – risks that are highlighted in the NRC's review (2016) and the NSW RFA review (2018).

However, since the IFOAs and RFAs were made, evidence of human-induced global warming has strengthened, the role of land carbon is better understood, and global agreement on the need for action is clear.

The UN Framework Convention on Climate Change has long recognised the benefits of biodiverse forests as carbon sinks. This has recently been reinforced by Article 5 of the 2015 Paris Agreement, which urges nations to take action to conserve and enhance sinks and reservoirs including forests.[45]

We **recommend** that any new IFOA and wood supply agreements must take full account of environmental, social and economic risks of climate change.

More specifically, we **recommend** the IFOAs include specific, demonstrable actions to:

- maintain ecosystem diversity, quality and capacity to adapt to change and provide for the needs of future generations; and
- support biodiversity conservation in the context of a changing climate;
- consistent with the objects of the *Biodiversity Conservation Act 2016* (NSW) (the IFOAs replace the need for threatened species licences under that Act).

Consistent with Article 5 of the Paris Agreement, we **recommend** that any new IFOA (as well as Commonwealth and state forestry laws and agreements) require:

- full quantification of greenhouse gas emissions from land and forestry sectors – with a particular focus on carbon stocks and flows from NSW public forestry;
- reducing emissions through conservation and enhanced carbon stocks; and
- specific actions to adapt forest use and conservation to climate change impacts.

[44] On RFA renewal see: https://www.dpi.nsw.gov.au/forestry/regional-framework. On the NFPS (1992) see http://www.agriculture.gov.au/forestry/policies/forest-policy-statement. Accessed July 2018.
[45] UN Framework Convention on Climate Change at: http://unfccc.int/paris_agreement/items/9485.php.

Part B – Comments on Draft Coastal Integrated Forestry Operations Approval (detailed settings)

This part of the EDO NSW submission comments on the details of the Draft IFOA. The structure and responses reflect section 4 of the *Coastal IFOA – Consultation Draft Executive Summary* (May 2018) (**Executive Summary**).[46]

The Executive Summary poses various 'Have Your Say' questions. In brief these ask whether the outcomes statements, conditions and protocols in the Draft IFOA (i.e. **settings**) are logical and fit for purpose, and if not, how they could be improved. We respond under the following nine themes:

1. **IFOA structure and 'outcome-focused' approach**
2. **Multi-scale landscape approach**
3. **Harvesting practices and limits**
4. **Wildlife habitat & tree retention clumps and threatened species protections**
5. **Landscape protections**
6. **Environmentally Significant Areas and boundary rules**
7. **Improved mapping and technology**
8. **Monitoring framework**
9. **Regeneration standards.**

1. IFOA structure and 'outcome-focused' approach

Condition 4 of the Draft IFOA requires that 'this approval' (the IFOA) and its protocols 'must be interpreted in a manner that is consistent with achieving and giving effect to the *outcome statements*'.

We **support** a structure that links together a clear hierarchy of outcomes, conditions and protocols.

We consider the outcomes statements are a useful starting point, but remain at a very high level. There is a risk that high-level guidance statements leave room for dispute and subjectivity as to whether outcomes are being achieved.

We **recommend** the IFOA define strategic environmental outcomes for forest structure, health, ecosystem services, biodiversity and threatened species recovery (in accordance with ESFM principles). These high-level desirable outcomes can be reflected in outcomes statements, targets and indicators, and measured against environmental baselines. We **recommend** baselines and targets be established via regional ecosystem assessments.

Outcome statements that are more closely aligned to strategic environmental outcomes and ESFM indicators will ensure a connection between the outcome

[46] Executive Summary, Section 4. *What is new in the coastal IFOA?* In particular sections 4.1-4.9. See: https://engage.environment.nsw.gov.au/29948/documents/77906, accessed June 2018.

statements and the purpose of IFOAs under the amended *Forestry Act 2012* (NSW).[47]

The Aichi biodiversity targets under the Convention on Biological Diversity provide some good examples of strategic goals which the IFOA outcomes could seek to promote. Aichi Strategic Goals B to E include:

- *Reduce the direct pressures on biodiversity and sustainable use*
    - (see further Aichi targets 5-10)
- *Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity*
    - (see Aichi targets 11-13)
- *Enhance the benefits to all from biodiversity and ecosystem services*
    - (see Aichi targets 14-6)
- *Enhance implementation through participatory planning, knowledge management and capacity building*
    - (see Aichi targets 17-20).

We also **recommend** the outcomes statements refer to risk management and adaptation in a changing climate – with specific actions in the conditions, protocols and monitoring. This would increase alignment with the objects of the *Biodiversity Conservation Act 2016*.[48]

We comment on proposed outcomes under specific themes below. Whether the Draft IFOA settings are likely to achieve these outcomes is addressed separately.

Multi-scale landscape approach (Draft IFOA Executive Summary4.2)

We note the list of relevant outcomes drawn from several outcome statements in the chapters and divisions of the Draft IFOA (Executive Summary, p 8). While this list of high-level outcomes is generally sound, we make the following comments.

A multi-landscape approach has the potential to provide for environmental protection at different scales. This greatly depends on detailed IFOA settings.

The high-level outcome statement for Chapter 3, Division 1 of the IFOA (Landscape level protections) is:

> *Forest areas are allocated to logical landscape scale units to ensure conservation and timber production outcomes are adequately considered across the landscape.*

It may be difficult to assess whether this particular outcome is achieved and whether the implied environmental outcomes will be delivered. What does it mean to 'adequately consider' conservation and timber production outcomes? Will this be interpreted as the equivalent of ensuring conservation and timber production

[47] *Forestry Legislation Amendment Act 2018* (NSW), s. 69L. A key purpose of IFOAs is to authorise the carrying out of forestry operations in accordance with the principles of ESFM (listed at s. 69L(2)).
[48] *Biodiversity Conservation Act 2016* (NSW), sections 1.3(b) (to maintain ecosystem diversity, quality, capacity to adapt, including for future generations); and 1.3(d) ('to support biodiversity in the context of a changing climate').

outcomes are achieved? Who decides the boundaries of the landscape scale units, and what parameters do they use, to ensure these outcomes are considered?

We **support** the intention of the outcome statements that certain environmental features (local and landscape-level) be 'permanently protected'. We **recommend** the IFOA clarify the legal mechanism(s) that will ensure such permanent protection. For example, the Government's proposal to 'remap' Old Growth Forest could remove hard-won protections that many would have thought to be permanent.

We **recommend** the term *'resilience'* be used in addition to 'persistence' of feed and habitat trees and other environmental features.[49]

We also **recommend** the IFOA outcomes and settings expressly require responses to the cumulative impacts of climate change, habitat loss through land-clearing and urbanisation, and other key threatening processes[50] that may affect and combine with forestry operations to threaten biodiversity and ecological integrity across tenures. While this is a logical place to deal with these pressures, it is not clear that the proposed multi-landscape approach does so. This gap – particularly on climate change risks to forest coverage, biodiversity and wood supply – should be specifically addressed in any new IFOA.

Harvesting practices and limits (4.3)

The outcome statement for the IFOA Chapter 3 Division 2 (Distribution of harvesting) is:

> *'Harvesting is distributed across the landscape and over time, to support a mosaic of forest age-classes and maintenance of forest structure locally and across the landscape.'*

We **recommend** this outcome statement refer to 'biodiversity', 'ecological processes' and 'threatened species' (as well as 'forest structure'). Other ESFM indicators such as protecting the needs of future generations could also be included.

Wildlife habitat & tree retention clumps and threatened species protections (4.4)

Desired outcomes for proposed wildlife and habitat protections are set out at p 10 of the Executive Summary.[51]

We **support** the general intent to protect important environmental features (habitat, landscapes, threatened species, ecological communities) to persist at different scales.

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[49] As the NRC (2016:11) notes, threatened species persistence is an important ESFM outcome 'and an indicator of the resilience of forest ecosystems following disturbances, including forestry activities'.
[50] The *Biodiversity Conservation Act 2016* (NSW) and its predecessors enable the listing of key threatening processes to native flora and fauna at risk of extinction, and threat abatement plans to be developed and implemented.
[51] See for example, Draft IFOA, Chapter 3 Division 3 outcome statement.

Landscape protections (4.5)

We generally **support** the high-level desired outcomes for landscape protections. These relate to permanently identifying and protecting important local environmental features; protecting riparian vegetation; best practice road and track management; control of soil erosion, water pollution, dust and waste (Executive Summary, p 11).

We **recommend** making specific reference to supporting climate change adaptation. This includes, for example, retaining and connecting climate refugia – including areas that are presently unoccupied by threatened species but that may provide future habitat in response to natural disasters and a changing climate.

Environmentally Significant Areas (ESAs) and boundary rules (4.6)

We generally **support** the proposed outcome statements for ESAs, to identify and permanently protect locally important environmental features, 'to provide refuge, connectivity, and to support forest regeneration.'

We **recommend** these outcome statements be improved to state that there is an improvement, and no regression, in the protection of ESAs over time. This reflects our recommendations elsewhere that at a minimum, existing stream protection areas continue to be protected (whereas the Draft IFOA in some cases reduces them).

We **recommend** these outcomes statements could also refer to the need for refuge in a changing climate. This reflects the objects of the *Biodiversity Conservation Act*,[52] noting that the Draft IFOA replaces threatened species licences under that Act.

Improved mapping and technology (4.7)

We **support** the outcomes statement that:

> *Accurate data layers are created, maintained and used during forestry operations and are accessible to agencies and the public.*

We also **recommend** this outcomes statement refer to 'Accurate *and up-to-date* data layers' (or that 'Accurate data layers *are maintained in an up-to-date way…*').

This reflects our comments that existing maps and data based on older technology (including seven-year-old survey data) may be inaccurate, unreliable or out of date.

We **recommend** the term 'up-to-date' should also be included in the outcome statement for Chapter 2 of the Draft IFOA (Administrative conditions), which is:

> *Transparent, comprehensive and accessible information and records are maintained relating to forestry operations covered by this approval.*

[52] *Biodiversity Conservation Act 2016* (NSW), sections 1.3(b) (to maintain ecosystem diversity, quality, capacity to adapt, including for future generations); and 1.3(d) (to support biodiversity in the context of a changing climate).

In the statement above, ‘accessible’ should include a reference to ‘including timely public access’.

Monitoring framework (4.8)

As a starting point, we **generally support** the outcome statement for Chapter 8 (Monitoring conditions) including the reference to ‘ensure’ ongoing effectiveness of the IFOA in ‘delivering stated outcomes’.

We **recommend** this outcome statement also refer to:

- application of ESFM principles and the achievement of ESFM;
- the use of best available knowledge and technology; and
- continuous improvement to deliver best-practice environmental standards.

Regeneration standards (4.9)

We **recommend** this outcome statement refer to ‘maintain or improve biodiversity’ and ‘threatened species habitat’ (as well as ‘ecological function and sustainable timber supplies’). Other ESFM indicators such as protecting the needs of future generations could also be included.

2. Multi-scale landscape approach

Although a multi-landscape approach has the potential to provide for environmental protection at different scales, we are concerned that the proposed settings in the Draft IFOA Conditions (Chapters 3, 4 and 5) will not adequately protect forest structure and ecosystems, biodiversity, threatened species or forest benefits for future generations, as is required by the principles of ESFM.

For example we are particularly concerned about:

- widespread use of ‘intensive harvesting’;
- return times to adjacent coupes (7-10 years) being too short for ecological recovery,[53] and likely to degrade public forests at a cost to future generations;
- transitional arrangements that allow larger areas of intensive harvesting than the standard rules (60ha coupes instead of 45ha) with insufficient justification;
- the lack of regional ecosystem assessments to determine the current status, capacity and trends of forest ecosystems and threatened species.

Expert opinion on threatened species, including from the EPA and OEH, adds weight to the need for greater environmental protections to ensure the multi-landscape scale approach succeeds. OEH experts strongly recommended any new IFOA settings be informed by an overarching regional assessment of the reserves network

[53] See OEH ecologists’ comments, *Threatened Species Expert Panel – Final Report*, pp 52 and 56.

(protected areas) to support threatened species and that the IFOA settings and reserves' capacity to maintain and improve biodiversity are mutually reinforcing.

To our knowledge these important assessments have not been done. This is problematic as it means:

the evidence base for the ability of the Draft IFOA settings to deliver ESFM is therefore very limited; and
the risk of failure is borne by the environment, because the harvesting limits (such as 2,200 hectares of intensive harvesting per year) are already set, while the likely environmental outcomes are unpredictable and unreliable.

We **recommend** the Draft IFOA settings be strengthened in favour of greater environmental protection, and informed by regional ecosystem assessments, including a review of the adequacy and capacity of the protected areas network.

3. Harvesting practices and limits

We do not consider that the proposed harvesting practices and their limits will effectively meet the desired outcomes. The proposed harvesting practices and limits are an area of greatest concern with the Draft IFOA.[54]

In the time available for submissions we have focused on intensive and selective harvesting. We also discuss monitoring and adaptive management. We have not commented on or reviewed in detail other methods permitted in the Draft IFOA, such as alternate coupe harvesting in the Eden region. The Draft IFOA also permits mixed harvesting (combining intensive and selective).

Intensive harvesting

As we understand it, the Draft IFOA would allow up to 44,000ha of intensive harvesting across 140,000ha of Mid-North Coast forests between Grafton and Taree over a 20-year period (to around 2040).

We **do not support** the Draft IFOA's endorsement of significant levels of intensive harvesting ('heavy single tree selection'/regeneration harvesting), for the following reasons:

- 'Intensive harvesting' is a long-standing source of contention between the regulator and Forestry Corporation. There is no consensus that intensive harvesting is consistent with the existing IFOA, the RFAs or the principles of ESFM.[55]

[54] See for example, Draft IFOA, Condition 1.13 and Chapter 3 Division 2.
[55] See for example, Threatened Species Expert Panel Report, EPA comment:
'*I still don't accept as a basic premise that the heavy form of harvesting (Heavy STS/Regeneration Harvesting) is an appropriate form of management for native forests if you aim to look after an acceptable level of environmental values.* '

- The NRC's risk assessment shows that several Draft IFOA settings pose a 'medium risk' to environmental values.[56] Medium-level environmental risks include the settings for coupe sizes for intensive harvesting, time to return to adjacent coupes, and mixed intensity harvesting (among other settings).
- There is widespread acknowledgement by many experts, community members, and present and former foresters that areas of North and South Coast forests have been over-harvested during the past 20 years of the IFOAs and RFAs. Yet the proposed harvesting limits and transitional arrangements do not account for this erosion in environmental baselines.
- This further reduces the chance of ecosystem and threatened species recovery, at a time of increasing pressure from past under-regulation, ongoing climate change, urbanisation and other threats.
- Despite a decade of intensive harvesting, there is a lack of monitoring data or scientific studies to demonstrate the practice does not erode environmental values. This became clear in the O'Kane review of koala population decline.[57]
- Given the ongoing risk of serious or irreversible harm to forest ecosystems and threatened species, a precautionary approach would require intensive harvesting proponents to demonstrate that the risks and impacts are benign or negligible.
- By contrast, expert ecological advice from the EPA is that:[58]
    - *[The] harvesting practices proposed… will severely degrade these forests… with severely reduced and limited biodiversity values.*
    - *[This] will have long term deleterious environmental outcomes for the public forests of NSW in order to… meet the final years of the wood supply agreements.*
- The primary recommendation of OEH ecologists on the Expert Panel was, in order to demonstrate the proposed IFOA settings could maintain or improve environmental outcomes (including in response to the proposed increase in logging intensity):

    …that a thorough assessment of the adequacy of the protected area network at a regional (or at least sub-regional) scale needs to be undertaken… by scientists with expertise and experience in wildlife conservation biology.[59]

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[56] NRC (2016), 'Table 8: Key findings for risk analysis', p 46.

[57] The O'Kane review of NSW koala declines recommended that within six months (i.e. by mid-2017):

> *that a priority research project is commenced to better understand how koalas are responding to regeneration harvesting forestry operations on the mid-north coast of NSW. The project will assess the effectiveness of current and proposed prescriptions designed to mitigate the impacts of forestry operations on koalas in these areas.*

(at http://www.chiefscientist.nsw.gov.au/reports/independent-review-into-decline-of-koala-populations) The NSW Koala Strategy (May 2018) adopts this recommendation, to be delivered by the NRC (p 20). See http://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/programs-legislation-and-framework/nsw-koala-strategy, accessed July 2018.

[58] B. Tolhurst, *Remake of the Coastal IFOAs - Threatened Species Expert Panel Review, Final Report* (2018) p 14.

[59] M. Andren and J. Turbill, *Remake of the Coastal IFOAs - Threatened Species Expert Panel Review, Final Report* (2018) p 48.

- Proposed return times to adjacent coupes of 7-10 years do not have sufficient scientific or ecological basis. The ability to harvest an entire net harvest area (of a local landscape area) within 21 years is highly problematic for ESFM. This is reinforced by expert opinion from OEH that 'the options presented [are] far too short…'; and from the EPA that recovery from intensive harvesting will take 'decades and centuries…'.[60]

Overall, the endorsement of intensive harvesting as proposed, without Forestry Corporation monitoring or demonstrating that it is compatible with ESFM principles, fails to deliver a precautionary approach. It prioritises short-term wood supply, risks the rapid degradation of public forests, and transfers the costs to future generations of forest users, who will be coping with further climate change.

To improve the proposed harvesting practices and limits in the Draft IFOA, we **recommend** removing intensive harvesting (heavy STS/regeneration harvesting) from the IFOA unless and until the scientific evidence indicates this method[61] is consistent with ESFM principles, conserving and enhancing biodiversity in NSW forests, and the recovery of threatened species in those forests.

However, if intensive harvesting is retained under the Draft IFOA, we **recommend** it be further limited by:

- at least doubling the proposed return times to adjacent coupes to 20-25 years;
- removing the unsustainable transitional arrangements that increase coupe size and reduce return times;
- halving the total number of hectares for intensive harvesting per year, from 2,200 to 1,100ha;
- an upfront regional ecosystems assessment of the area between Grafton and Taree that is proposed for intensive and mixed harvesting – to assess the area's environmental values, condition and capacity to sustain intensive harvesting, and to guide strategic planning of harvesting and exclusions;
- independent peer-review and public consultation on draft EPA guidelines for intensive harvesting (referred to in draft Condition 52); and
- establishing a mandatory, well-resourced monitoring, evaluation, improvement and annual reporting process for any intensive harvesting (past and future) to determine whether it is consistent with ESFM and improving environmental values.

[60] Ibid. For example:
- OEH (p 52): *It will result in a very long return time for all of these forests at the completion of the current logging cycle. To our knowledge, there is unlikely to be scientific data that could be used to justify fine-scale differences in coupe size and return time with respect to the impact on threatened species. However, we consider the options presented as far too short and ideally would recommend return times in the order of 25 years.*
- OEH (p 56): *These considerations are not so critical if a satisfactory protected area network is in place.*
- EPA (p 14): *Recovery to some level of 'natural' ecological function will be decades and centuries, possibly without many species that will not survive this current and ongoing impact….*

[61] We note that 'intensive harvesting' is only briefly defined in Protocol 39 (definitions) and Condition 52, which notes 'The application of these conditions must be informed by relevant guidelines.'

If this has a verified impact on wood supply (shortfall), this should be accounted for in wood supply buybacks as recommended above.

Selective harvesting

For selective harvesting (the 'most common harvesting approach' in coastal forests[62]), the Draft IFOA proposes to replace the current 'basal area removal limit' approach (40-45% of tree basal area) with 'minimum basal area' retention limits (m^2 per hectare retained).[63]

We understand the current 'basal area removal limit' approach has been open to abuse and raises difficulties with compliance and enforcement and on this basis, the overall shift in approach may be appropriate. However, we are concerned with the low limits proposed in the Draft IFOA.

We **do not support** the low 'basal area' retention limits proposed for selective harvesting.

The Draft IFOA proposes minimum retention of 10-12 square metres of basal area – for regrowth forests (more even-aged) and non-regrowth forests (multi-aged) respectively.

There is insufficient information to justify the proposed basal area limits, including:

- how these limits were reached;
- how they compare to the current basal removal approach;
- how these limits '"future proof" against a change in harvesting intensity';[64]
- what the likely percentage of removal is for different forest types and ecosystems; and
- the impacts on key habitat features like hollow bearing trees.

Importantly we consider there is insufficient scientific evidence to support limits being set this low.

There were mixed views on this issue amongst the Expert Panel, with several experts noting there was not enough information available to determine the impacts of the changed settings.[65] As one noted:

> *It would be useful to clearly define the outcome that the basal area limits should deliver, then present real data to show what the current IFOA conditions deliver and what the proposed changes would deliver. As indicated in the previous panel discussion the figure of 10m^2 seems too low to retain appropriate forest structure.*

The NRC (2016) assessed that the proposed basal area settings represent a 'medium risk' to environmental values.[66]

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[62] NSW EPA, Draft IFOA factsheet, 'Timber Harvesting' (May 2018).
[63] *Remake of the Coastal IFOAs - Threatened Species Expert Panel Review, Final Report* (2018) p 27
[64] *Remake of the Coastal IFOAs - Threatened Species Expert Panel Review, Final Report,* p 27.
[65] *Remake of the Coastal IFOAs - Threatened Species Expert Panel Review, Final Report,* pp 27-28.

We **recommend** increasing the basal area retention limits for both regrowth and non-regrowth forests. The IFOA outcomes and conditions should also clearly define the outcome that the basal area limits should deliver.

Monitoring and adaptive management – for harvesting practices and limits

The consultation documents point to the use of monitoring, evaluation, reporting and improvement (**MERI**) as a justification for future intensive harvesting.

While our reservations about intensive harvesting are made clear above, we **support** the use of MERI to ensure the environmental impacts of future harvesting practices are identified, reported on and adaptively managed. However, monitoring can never replace the need for appropriate upfront management settings. Rather it should be used as a tool to measure success against clear and enforceable outcome statements.

Adaptive management must be embedded in the management process , not generalised and discretionary.

We **recommend** the Draft IFOA be amended to include clear and mandatory triggers for adaptive management responses (including revisions to limits, conditions, forest management and regulatory responses). That is, if achievement of outcomes in the IFOA are not verified, or are in dispute, certain mandatory steps must occur.

4. Wildlife habitat & tree retention clumps and threatened species protections

'Clumping' approach and retention settings

Condition 57 in Chapter 3 of the Draft IFOA relates to 'Wildlife habitat clumps in the local landscape area'. It requires identification and permanent protection of 'wildlife habitat clumps' for at least five per cent of each local landscape area (base net area).[67]

Condition 70 in Chapter 4 of the Draft IFOA relates to 'Tree retention clumps'. It requires an additional five to eight per cent permanent retention of tree clumps at the smaller-scale, *compartment* level.[68]

We are concerned that the proposed clumping percentages (10-13 per cent combined) are not sufficient to alleviate potential significant impacts to unique Australian forest species at risk of extinction. The detailed rules for what areas are protected will have a real bearing on outcomes. It is understood that the Forestry

[66] NRC (2016), 'Table 8: Key findings for risk analysis', p 46.
[67] Detailed requirements are outlined in draft Protocol 22. A 'local landscape area' is an area of timber production forest, above the site-scale, but no larger than 1,500 hectares (around 4 per state forest).
[68] Regrowth zone (more even-aged forests) and non-regrowth zone (multi-aged forests) respectively.

Corporation will identify clumps for retention prior to forestry operations. Yet there does not appear a sufficiently clear requirement to retain the best quality habitat[69] (particularly where these areas compete with timber supply).

Significantly, agencies and experts involved in the IFOA remake did propose or support stronger habitat retention settings. On the limited information available, we understand:

- The EPA proposed that 10 per cent of 'base net area' of each local landscape area be permanently protected in wildlife clumps, while Forestry Corporation and the NRC proposed five per cent (Condition 57 adopts five per cent).
- The EPA recommended a further 6.5 to 10 per cent minimum tree clump retention (in the regrowth and non-regrowth zones, respectively).[70]
- The Threatened Species Expert report indicates a 20 per cent protection rule may also have been considered; and the Expert Panel 'generally supported… the principle of retaining a minimum 20% landscape protection'.[71]
- If so, this is approximately twice the retention rate proposed in the Draft IFOA.

We also express reservations about whether a blanket percentage retention and 'clumping' approach is in itself sufficient, without regional ecosystem assessments and additional protected area reserves. For example, OEH experts advise: 'Clumps will only be effective if they are supported by an adequate protected area network.'[72]

On the information above, if any new IFOA adopts the 'clumping' approach to wildlife habitat and tree retention, we **recommend**:

- an increase in permanent protections to at least 20 per cent for each local landscape area (instead of 10-13 per cent in the Draft IFOA);[73]
- a more independent or peer-reviewed and audited identification process;
- that identification and protection of clumps be informed by detailed regional ecosystem assessments and mapping (to be immediately resourced and completed prior to any new IFOA commencing); and
- that IFOA settings and complementary policies ensure there is an adequate protected area network relative to forestry impacts, with additional habitat and corridor protections throughout the landscape at different scales.[74]

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[69] See OEH comments in Threatened Species Expert Report (2018), p 49:
Clearly the clumps will have to be sufficient in number and size, well chosen and permanently protected to be effective. They will also have to be accurately identified so that they are auditable. While this could potentially improve existing practice, it is still unclear whether the clumps will be of sufficient size and location to contribute to viable habitat or will remain unoccupied by many threatened species.

[70] See NRC (2016) p 40, Table 6.

[71] *Threatened Species Expert Panel - Final Report* (2018), pp 7-8:
…although some panel members noted that this quota would often be met by the existing excluded area network in some management areas.

[72] See *Threatened Species Expert Panel - Final Report* (2018), p 50.

[73] With more detailed, transparent consideration of what is included or excluded in this percentage. For example, environmentally significant area protections should be separate and additional to tree retention clumps (amend Protocol 22.1(2)(b)). See also Expert Panel comment in footnote 71 above.

[74] See *Threatened Species Expert Panel - Final Report* (2018), p 49; and OEH experts' primary recommendation in that report.

Koala mapping and surveys

The Draft IFOA proposes that North Coast koala protections will shift away from surveying towards a predictive mapping approach (using OEH and DPI methods). On the South Coast, koala surveys will be monitored and adaptively managed.

In light of recent evidence of dramatic koala population declines, we **recommend** stronger settings and a precautionary approach in the use of predictive mapping and leading-edge survey techniques. Detailed recommendations are proposed below.

Giant trees and hollow-bearing trees

Giant trees are increasingly rare habitat features in the landscape, and the loss of hollow-bearing trees is listed a key threatening process.

As the Draft IFOA proposed a 'minimum retention' approach to hollow-bearing trees, it is not clear from the consultation documents how many hollow-bearing trees could be lost. By analogy, in some circumstances the *Biodiversity Conservation Act 2016* requires assessment of whether a development proposal (including by government) will contribute to key threatening processes.[75]

While we **strongly support** 'giant tree protection' and hollow-bearing tree protection (and that these be separate from wildlife clumps), we **recommend** strengthened settings further below. In doing so we refer to past EPA proposals and ecological expert advice, including from the Threatened Species Expert Panel.[76]

Surveying

Condition 63 enables forestry operations when a targeted flora and fauna survey has been completed in the operational area within the last seven years.[77]

We **recommend** the IFOA require a shorter maximum time between targeted surveys. This aims to ensure that surveys are more accurate and up-to-date, reflect species movements over time (including under climate change), include consideration of more recent species specific information and that methods reflect best practice.

[75] Biodiversity Conservation Act, 7.3(1)(e); *Environmental Planning and Assessment Act 1979*, s. 1.7.
[76] NRC (2016) p 42. EPA proposed retention of120cm (most species) -135cm (blackbutt) diameter.
[77] Condition 63.4 exempts the need for surveys of certain species where the IFOA permits alternative options, such as predictive modelling and mapping.

Detailed recommendations on wildlife protections

In summary, we **recommend** strengthening wildlife habitat and threatened species protections as follows:

- At least 20 per cent permanent protections for each local landscape area (instead of 10-13 per cent in the Draft IFOA). This could be comprised of:
    - Higher minimum percentages of **wildlife habitat clumps** at the *local landscape area* scale (the Draft IFOA setting is five per cent);[78]
    - Higher minimum percentage of **tree retention clumps** in each *compartment* (the Draft IFOA setting is five to eight per cent).
- **Environmentally significant area** protections should be separate and additional to tree retention clumps (Protocol 22.1(2)(b) suggests an overlap).
- **North Coast koala protections** should include higher levels of tree retention. This is consistent with a precautionary approach that reflects the serious or irreversible threat of local extinctions and the uncertainty of predictive maps. For example:[79]
    - retain at least 25 koala browse trees per hectare in areas mapped as 'high' likelihood and habitat quality by both OEH and DPI;
    - retain at least 20 browse trees per hectare in areas mapped as high/moderate by OEH and DPI;
    - retain at least 15 browse trees per hectare in areas mapped as moderate by both OEH and DPI; and
    - increase minimum 'retained tree' diameter from 20 to 25cm (DBHOB).
- **Hollow-bearing trees** – increase minimum retention requirements in order to minimise the loss of hollow-bearing trees, a listed 'key threatening process':
    - the minimum retention rate should be higher than five per hectare;
    - strengthen tree retention clump settings so that both hollow-bearing trees *and* 'recruits' (potential future hollow-bearing trees) must be retained ('and' not 'or' – see for example Protocol 22.1(2)(a)); and
    - establish a monitoring program for hollow bearing trees, including mandatory records of the number and percentage of trees removed and retained, and tracking occupation and loss after retention.
- **Giant tree protections** – adopt a stronger uniform retention standard that reflects their rarity in the landscape and multiple ecological and social values:
    - remove the proposed larger threshold that would permit giant blackbutt or alpine ash trees (diameter 140-160cm) to be harvested,[80] and
    - all forest trees of any species with a stump diameter of 140cm or more must be retained as giant trees.

[78] See NRC (2016) p 40, Table 6.; and *Threatened Species Expert Panel - Final report*, pp 21-22.
[79] See for example NRC (2016) p 41. These detailed settings reflect EPA proposals as noted by NRC.
[80] NRC (2016) 42. EPA proposed 120-135cm stump diameter; Forestry Corporation proposed 160cm.

5. Landscape protections

Stream buffers and protections

We welcome recent LIDAR mapping that has discovered additional natural drainage lines in State Forests. However, we **do not support** reducing existing buffers around small streams from 10m to 5m. We note the contention that the same approximate area of forest may be protected by proposed buffer zones (with additional mapped drainage lines), but in our view this is not a sound rationale for regressive steps in environmental protections.

First, pre-existing 10m buffers around headwater streams deserve continuous protection for the biodiverse riparian ecosystems they support. A 'soft' 10m buffer would erode environmental values in these areas where protections already apply.

Second, recently mapped drainage lines may have been subject to past forestry practices that, with better information, should not have occurred. To compensate for past over-exploitation and to allow regeneration of biodiversity, these newly identified drainage lines should be protected under a consistent standard of 10m buffer zones.

Third, the Threatened Species Expert Panel supported prioritising existing riparian buffers 'particularly where they have been protected over previous harvest cycles'.[81]

We **recommend** small stream buffer protections be maintained at a consistent 10m; not be reduced to 5m, or a mixture of hard and soft buffer zones that raise ambiguity.

More generally, we **support** the use of 'Ground Protection Zones' where they provide additional protection compared to existing buffers.

Old Growth Forests (and remapping proposals)

As the consultation factsheets note, Old Growth Forests are 'rare in the landscape and are extremely important for maintaining forest biodiversity…'.

The factsheets further state that: 'Areas of old growth will be continued to be protected under the proposed Coastal IFOA.' However, this factsheet does not mention the proposed Old Growth Forest remapping process.

We are highly concerned at the Government's proposal to remap Old Growth Forest for the main purpose of identifying additional wood supply in the event of a shortfall.[82]

The intent behind remapping is important. Notwithstanding the intention to identify and protect other environmental values, we **do not support** the proposal to remap Old Growth Forest for the express purpose of supplementing timber supplies.

[81] See *Threatened Species Expert Panel - Final Report* (2018), p 8.
[82] *NSW Government Response to the Natural Resources Commission Reports – Advice on the Coastal IFOA Remake* (May 2018)

We are also concerned that the Government has not sought public comment on the remapping proposal, either before or during the draft IFOA exhibition. It is surprising to us that this decision was taken without public discussion of the environmental and socio-economic costs and benefits of alternative options, including timber quota buybacks.

Other landscape protections

We strongly **support** the continuation of existing protections (at a minimum) for rainforests, ridge and headwater habitat, rock outcrops and forest owl landscapes, as well as Old Growth Forest.

However, if sufficient environmental data were available, it would have been preferable for the IFOA remake to evaluate existing protections and implement improvements.

We **recommend** the following to support and enhance landscape protections:

- that the new IFOA monitoring program independently assess the persistence and condition of important landscape features over defined times;
- that the principle of continuous environmental improvement be embedded throughout any new IFOA, so as to respond to such monitoring; and
- for roads and crossings,[83] that outcome statements and operating conditions additionally aim to avoid and minimise habitat fragmentation and roadkill.

This submission does not provide detailed comment in areas such as feed and sap tree retention, unmapped Old Growth Forest and rainforest surveying. However, we **recommend** the Government respond to scientific and community feedback received from the Threatened Species Expert Panel and during the consultation period.

[83] See for example Chapter 5 (Operating Conditions), Division 4 – Roads.

6. Environmentally Significant Areas and boundary rules

We **support** the continued protection of ESAs from timber harvesting in public forests.[84]

ESAs are listed under Condition 56 as either category 1 (higher protection) or category 2 ESAs. It is unclear why High Conservation Value Old Growth Forest is listed as a category 2 (whereas rainforest is listed as category 1, which we support).

We **recommend** High Conservation Value Old Growth Forest as a category 1 ESA.

We **strongly support** the list of excluded activities in category 1 ESAs (Condition 98.1).

On wetlands, noting the intent of simpler rules for ESAs, we **recommend** the minimum exclusion zone width be 20 metres – whether or not the wetland's size is *less* than 0.5 hectares (where the Draft IFOA proposes 10m); or 0.5 to 2 hectares.

We also **recommend** clarifying certain detailed matters in the Draft IFOA conditions:

- What is the relationship between ESAs and Ground Protection Zones (to manage water pollution risk and riparian habitat)?
- Why are the latter not listed as ESAs?[85]
- Is the intent that a 'disturbance' is by definition a breach? (Condition 98.1(h))
- How do rules on 'felling into' and 'away from' category 2 ESAs interact? (99.1(b) and (c))
- Explain or remove the word 'can' in rules that say 'if FCNSW *can* demonstrate…' (e.g. Condition 100 – Accidentally felled trees and elsewhere).

7. Improved mapping and technology

EDO NSW **strongly supports** detailed requirements for digitised mapping, including retained trees, environmentally sensitive areas and exclusion zones.[86]

To further assist compliance, we **recommend** any new IFOA require GPS tracking of all vehicles and machinery, and provide that data to the regulator. This is analogous to legislative requirements around waste tracking in NSW pollution laws.

We **support** the (mandatory) use of best available knowledge, technology and continuous improvement that specifically achieves *better environmental outcomes*. This is important because technological advances in machinery can also result in over-extraction and unsustainable practices – as with intensive harvesting under existing IFOAs.[87]

[84] See also Conditions in Chapter 3 Division 3 (ESAs); and Chapter 5 Division 2 (ESA management).
[85] See for example Condition 102 – Riparian exclusion zones,Table 6a; and Condition 104 (GPZs).
[86] See Draft IFOA Conditions, Chapter 6 – Mapping; see also Draft IFOA Executive Summary, 4.7.
[87] The EPA and NRC have noted that past and current forestry operations including intensive harvesting are neither best practice, nor necessarily good practice See NRC (2016), p 35. For a

We **recommend** the conditions of any new IFOA require the use of 'best available knowledge', 'best available technology' and 'adaptive management' to achieve 'continuous improvement in environmental standards and outcomes'. This terminology reflects ESFM principles,[88] modern pollution standards, and long-standing impact-reduction objectives in NSW pollution laws (which the IFOAs replace).[89]

We **recommend** these terms be defined in the protocols based on further EPA and NRC advice. In practice this should require Forestry Corporation and its contractors to operate safe, best-practice and environmentally responsible machinery, equipment, forest management practices, record-keeping and databases; and improve environmental outcomes and reduce pollution and degradation over time.

Finally in relation to field mapping, we **recommend** clarifying that condition 124 (which requires 'mapping or remapping' of 'all unmapped ESAs'; 'all unmapped rainforest incidentally identified by FCNSW'; and certain other listed matters prior to forestry operations) includes field mapping of unmapped Old Growth Forest as well as rainforest.

8. Monitoring framework

We **strongly support** a comprehensive monitoring, evaluation, reporting and improvement (**MERI**) framework, subject to the comments below. In particular, Chapter 8 of the Draft IFOA (Monitoring framework) should refer in detail to ESFM.

Given the paucity of data and monitoring under the existing IFOAs, we are concerned that Chapter 8 consists of one draft condition (129), requiring the Forestry Corporation to establish a monitoring steering committee and devise a monitoring program to be approved by the EPA and DPI.

Condition 129 does not provide any robust direction that links the monitoring framework to ESFM or continuous improvement. Neither of these terms is used in the draft condition. The Executive Summary (at 4.8, p 12) provides some guidance on continuous improvement where condition 129 does not.[90] We also note and **support** some of this detail being included in draft protocol 38 (Monitoring program).

We **support** the involvement of OEH and 'independent' environmental scientists on the monitoring committee under protocol 38. However it is not best practice – nor

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general exploration of these issues, see further, G. Borschmann, 'From axes to iPads: new logging methods replace traditional ways', ABC Background Briefing (20 July 2015), available at: http://www.abc.net.au/radionational/programs/backgroundbriefing/from-axes-to-ipads-logging-native-forests/6628110 accessed June 2018.

[88] See for example, Forest Legislation Amendment Act 2018, item [20], section 69L(2)(c) and (d).

[89] See the *Protection of the Environment Administration Act 1991* (NSW), s.6 and the *Protection of the Environment Operations Act 1997* (NSW).

[90] For example, continuous improvement includes efficient and effective responses to negative impacts, or changes where a better method to achieve an outcome is identified. However, the aim of the monitoring framework should be to *require* not just 'enable' such responses. See Draft IFOA Executive Summary at 4.8, p 12.

necessarily independent – for Forestry Corporation to nominate the members. We **recommend** a more independent selection process for the monitoring committee. This could include members of the IFOA Threatened Species Expert Panel.

We also **recommend** greater upfront involvement from other expert agencies in designing the monitoring program. For example, written advice on monitoring program design could be required from the NRC and the NSW Audit Office. Among other things, this advice should refer to ESFM indicators devised by the EPA (2016) and noted below. The advice could be required to be provided to Forestry Corporation, EPA and DPI within 6 months. Involving the NRC and NSW Audit Office upfront would reduce the risk of an ineffective or inefficient monitoring program. The final monitoring program could still be devised within 12 months, with approval sought from the EPA and DPI.

Monitoring priorities could be devised based on risk, impact, levels of uncertainty, and novel settings and management methods.

Finally we **recommend** a requirement that the monitoring framework is in place before any new IFOA commences. Chapter 8 should restate this.

Indicators and criteria for Ecologically Sustainable Forest Management

We note that in 2016 the EPA devised a set of ESFM indicators. However, these indicators are not discussed in the consultation documents or the IFOA conditions. The criteria include:

conservation of biodiversity (including threatened species status);
maintenance of productive capacity of forest ecosystems;
maintenance of ecosystem health and vitality;
conservation of soil and water resources;
maintenance of forest contribution to global carbon cycles;
maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of society; and
the legal, institutional and economic framework for forest conservation, sustainable management (governance).

While we have not comprehensively reviewed these indicators, they provide a useful reference point for what the IFOA should achieve (objectives), what the rules should require (conditions and protocols), and whether it is successful (MERI).

We **recommend** any new IFOA adopt the EPA's indicators as a starting point for achieving, and applying the principles of, ESFM.

We also **recommend** additional indicators be developed to reflect principles (b) to (e) of the ESFM definition under the *Forestry Legislation Amendment Act 2018*. In brief this would include assessing:

whether public participation, provision of information, accountability and transparency is ensured;

incentives for voluntary compliance, capacity-building and best-practice standards; whether best-available knowledge and adaptive management processes have been applied, and the extent to which this has delivered best-practice forest management; and
whether and how the precautionary principle has been applied in the IFOA to prevent environmental harm.

Finally, we note that the 2018 Waller Review of RFA performance recommended the NSW and Commonwealth Governments:

> '*review the sustainability indicators, review the monitoring, evaluation and reporting process… [and] collaborate to engage community interest in the sustainability indicators;*[91]

We **support** this recommendation, including use of citizen science and engagement.

9. Regeneration standards

While we do not comment in detail on this section, we **support** the use of specific remediation requirements in the stocking and regeneration standards, where outcomes do not meet (or are unlikely to meet) expectations and outcomes.

We **recommend** the Draft IFOA settings recognise that successful regeneration for timber supply purposes and for biodiversity purposes may look, and need to be measured, quite differently. As members of the Threatened Species Expert Panel note, particularly after intensive harvesting, regeneration to similar ecological function and environmental values could take decades and centuries to achieve.

[91] Waller Review (April 2018), section 3.3.3 (recommendation 7). Available at: http://www.agriculture.gov.au/SiteCollectionDocuments/forestry/rfa/independent-review-nsw-rfa-5-yearly-review-2004-14.pdf, accessed June 2018.