



Environmental Defenders Office

28 September 2020

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URGENT

Dear Ms Mackey,

Site Specific Operating Conditions issued to permit harvesting in State Forests burned in the 2019/20 wildfires

1. We confirm that we act for North East Forest Alliance Inc (**NEFA**).
2. We request your urgent attention to the matters raised in this letter.

Summary and purpose of this letter

3. This letter considers the EPA's decisions to issue site specific operating conditions (**SSOCs**) for State Forests (**SFs**) in north eastern NSW.
4. The purpose of this letter is as follows:
 - (a) To put to you our client's position that when deciding to issue SSOCs for Myrtle, Bungawalbin and Doubleduke State Forests, Forestry Corporation NSW (**FCNSW**) and the EPA CEO(s) failed to satisfy key requirements of condition 23.4 of the Coastal Integrated Forestry Operations Approval (**CIFOA**) (including the requirements of Protocol 5 cl 5.3). As a result, the EPA CEOs authorised harvesting operations in burned areas of State Forests in circumstances where they did not have before them sufficient information to permit them to form an opinion about the potential ecological impacts of those operations.
 - (b) To **enclose** reports prepared by the following expert ecologists, commissioned by the Environmental Defenders Office (**EDO**) on behalf of NEFA:
 - (i) Dr Robert Kooyman, specialist plant ecologist (one report).

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- (ii) Dr Stephen Phillips, specialist koala ecologist (two reports¹).
- (iii) Dr Arthur White, specialist frog ecologist (one report).

These reports support our client's position and highlight the failures of FCNSW and the EPA to, among other things, apply the precautionary principle when issuing the NE SSOCs. Our client's concerns are also supported by the EPA-commissioned report prepared by Dr Andrew Smith: *Review of CIFOA Mitigation Conditions for Timber Harvesting in Burnt Landscapes* (2020).

- (c) To set out our client's position as to appropriate next steps that are immediately available to the EPA that would better protect these recovering areas of forest, bearing in mind the principles of ecologically sustainable forest management (**ESFM**), including the precautionary principle, these being at the core of IFOAs generally and the CIFOA in particular (See *Forestry Act 2012* (NSW) s 69L; CIFOA condition 14).
5. Put simply, our client's position in relation to the SSOCs for Myrtle, Bungawalbin and Doubleduke SFs is that the EPA should take the following steps as a matter of urgency:
- (a) Noting the fire mapping concerns raised below, in particular the analysis in Dr Phillips' reports, the EPA should adopt the Google Earth Engine Burnt Area Map (**GEEBAM**) as its data source for identifying partially burned and unburned areas.² This would replace the FESM Fire Extent and Severity Mapping (**FESM**) (that we understand, per Dr Phillips' reports, is currently represented in the EPA fire severity maps). Per Dr Phillips' reports, this would result in the identification and protection of a significantly greater area of 'partially burned' forest within the areas covered by those SSOCs.
 - (b) FCNSW or (should FCNSW be unwilling) the EPA should undertake thorough on ground surveys for koalas in the areas covered by the SSOCs so as to identify koala refugia. These areas should then be prioritised by FCNSW for retention under the CIFOA and SSOCs.
6. We note that timing in relation to Myrtle SF is critical. According to the FCNSW Planning Portal, FCNSW was scheduled to commence harvesting operations in Myrtle SF on 24 August 2020. We are instructed that harvesting operations have been delayed in order that FCNSW may comply with its obligations under the applicable SSOCs. We understand that operations are likely imminent and as such request that the EPA take action in response to this correspondence as a matter of priority.
7. We also note that this letter primarily concerns the SSOCs issued for Myrtle SF compartments 10-16, as well as those issued for Bungawalbin and Doubleduke SFs. However, based on the available materials, we consider that many or all of the concerns raised in this letter are very likely to apply equally to all SSOCs issued for the north east region. They may also apply to SSOCs issued for the Southern and Eden regions (which were considered in Dr Andrew Smith's report).

¹ 'Materials considered by the EPA going to impact of the operations on koalas' & 'Significant impact of the operations on koalas'.

² Compare GEEBAM categories 'little change', 'canopy unburnt' and 'canopy partially affected' with EPA fire severity map categories 'partially burned' and 'unburned'.

8. For the sake of clarity, we have set out in an **Appendix** to this letter a list of the documents that we provided to the three experts for their consideration, as referred to in each of their reports.
9. We also note that this letter does **not** address the broader, region-wide issues that have come to light over the last week, namely, FCNSW's assertion that it can – and soon intends to – commence harvesting operations in burned areas of State Forest under the ordinary CIFOA conditions, and the EPA's response to the same. Nor does it consider harvesting operations in unburned forests – another critically important issue where the environmental values of such areas are likely to have materially changed as a result of the 2019/20 fires. At this stage we are simply instructed to note our client's deep concern about forestry operations conducted in burned areas of State Forests under the ordinary CIFOA conditions and the SSOCs, pointing to Dr Smith's report in support both.

Background: SSOCs for areas burned in the 2019/20 fire events

10. As you will be aware, on 3 March 2020 the former EPA CEO Richard Bean issued eight SSOCs for eight State Forests across north east NSW (the **March Decision**). On 25 May 2020 you, as current EPA CEO, issued a further SSOC for compartment 13 of Myrtle SF (the **May Decision**). Together, we refer to these SSOCs as the north east SSOCs (**NE SSOCs**).
11. Pursuant to applications submitted under the *Government Information (Public Access) Act 2009* (NSW) (**GIPA Act**), our client has obtained copies of the materials that were before the EPA CEO(s) when deciding to issue four of the NE SSOCs, being the SSOCs for Myrtle, Bungawalbin and Doubleduke SFs (with some information withheld on the basis of a claim of legal professional privilege).³ Our client has also obtained a copy of the briefing note prepared for the former EPA CEO in relation to the decision to issue SSOCs for Mogo and South Brooman State Forests⁴ (this document was referred to, but not included in, the decision briefs for the March and May Decisions).
12. The effect of issuing the NE SSOCs appears to have been to permit harvesting operations in areas that were burned in the 2019/20 bushfires in circumstances where the operations would not otherwise at that time have been permitted. We understand the reason for this to be that the impacts of the 2019/20 bushfires rendered FCNSW unable to comply with some of the ordinary conditions of the CIFOA.

Specialist ecologists consider that the information put before the EPA CEOs was insufficient for the purposes of Protocol 5

13. Please find **enclosed** reports prepared by the expert ecologist identified above at [4]. These reports were prepared in response to briefs issued by the EDO on behalf of NEFA.
14. Put broadly, we asked the experts to comment on the adequacy of the materials that were before the EPA CEO(s) when issuing the SSOCs for Myrtle, Doubleduke and Bungawalbin SFs. The experts were asked to consider whether these materials satisfied the specific requirements stated in CIFOA condition 23.4 and Protocol 5 cl 5.3(3)(c)(iv)-(vi). They were also asked to consider whether the materials were more generally sufficient to permit the EPA CEO(s) to form an opinion about: the potential impacts of the proposed operations; and, whether the proposed operations would accord with the principles of ESFM. The experts also

³ Materials released pursuant to GIPA EPA623.

⁴ DOC20 99269 released pursuant to an informal GIPA Act request.

considered the possible ecological impacts of conducting harvesting operations so soon after the 2019/20 bushfire events.

15. Dr Phillips gave an opinion in relation to all three SFs; Dr Kooyman's opinion is confined to Myrtle SF; Dr White's report comments more generally on the NE SSOCs.
16. Put simply, each of these experts state an opinion that the materials that were put before the EPA CEO(s) when making the March and May Decisions were **not sufficient** so as to permit the EPA CEO(s) to form an opinion about the potential ecological impacts of the harvesting operations proposed in these burned areas of SF.⁵
17. Dr Kooyman and Dr Phillips also expressly concluded that the materials:
 - (a) do not satisfy the requirements of Protocol 5; and
 - (b) do not evidence any attempt to apply the precautionary principle.
18. All of the experts raise concerns about the potential or likely ecological impacts of permitting the harvesting operations pursuant to the SSOCs.

The importance of the information mandated by Protocol 5

19. In our opinion, when considering the power to issue SSOCs in context, the deficiencies identified by the experts Dr Kooyman, Dr Phillips and Dr White are serious and material. We note the following:
 - (a) Apart from the power to issue SSOCs under CIFOA condition 23.4, the CIFOA conditions can only be varied with the joint agreement of the two identified ministers and only after a period of mandatory public consultation (Forestry Act s 69RA). In our opinion, condition 23.4 represents a substantial delegation of power to the EPA. This is a power that provides for the timely mitigation or avoidance of unforeseen ecological harm arising from harvesting operations but also grants scope for the EPA to *permit* operations that may nevertheless result in unanticipated ecological harm.
 - (b) The principles of ecologically sustainable forest management (**ESFM**), which include the precautionary principle, sit at the heart of IFOAs (Forestry Act s 69L).
 - (c) Likewise, the carrying out of forestry operations in accordance with the principles of ESFM is a key overall objective of the CIFOA (CIFOA condition 14).
 - (d) The principles of ESFM are elaborated in s 69L of the Forestry Act and importantly include the following:
 - (a) *maintaining forest values for future and present generations, including—*
 - (i) *forest biological diversity, and*
 - (ii) *the productive capacity and sustainability of forest ecosystems, and*
 - (iii) *the health and vitality of native forest ecosystems, and*

⁵ Extrapolation of these opinions to the NE SSOCs that were not the subject of our client's GIPA Act requests (i.e. Bagawa, Collombatti, Girard, Styx River and Riamukka SFs) relies on an assumption that the (very limited volume of) material in the materials that were released to our client under the GIPA Act do not materially address the concerns of Dr Kooyman, Dr Phillips and Dr Arthur in relation to those SFs.

- (iv) *soil and water quality, and*
- (v) *the contribution of native forests to global geochemical cycles, and*
- (vi) *the long term social and economic benefits of native forests, and*
- (vii) *natural heritage values,*

- (e) The principles of ESFM also include the application of the precautionary principle, as defined in s 6(2)(a) of the *Protection of the Environment Administration Act 1991* (NSW) as follows:

(a) the precautionary principle—namely, that 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.

In the application of the precautionary principle, public and private decisions should be guided by:

- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
- (ii) an assessment of the risk-weighted consequences of various options,*

- (f) The EPA’s power to issue an SSOC under CIFOA condition 23.4 is triggered by receipt from FCNSW of a report ‘in accordance with Protocol 5’.
- (g) Protocol 5 cl 5.3 sets out information that a Protocol 5 report ‘must include’.
- (h) Section 10 of the Forestry Act sets out the objectives of FCNSW. This includes, at s 10(1)(c), the requirement that FCNSW conduct ‘its operations in compliance with the principles of ecologically sustainable development contained in section 6(2) of the [POEA Act]’. Ecologically sustainable development (**ESD**) is broader than, but overlaps significantly with, ESFM and expressly includes the precautionary principle.
- (i) It was and remains widely accepted that the fire events of the 2019/20 fire season were unprecedented in size and intensity, that these fires wrought previously unseen ecological harm, and that the scale of that harm is yet to be fully understood.
20. Bearing in mind the above, we consider that Protocol 5 Reports serve an important purpose within the SSOC process established under CIFOA condition 23.4. That is, before the EPA in effect varies the ordinary CIFOA conditions (for a particular site and duration), it is required to have before it information that will enable it to form a view about the potential impacts of the harvesting for which approval has been sought. Such information is critical in order for the EPA to form a view about whether it is appropriate to exercise its limited power to vary the ordinary CIFOA conditions: it must form an opinion (based on pertinent information) about the relationship between the proposed operations and the maintenance of forest values now and into the future.
21. In our opinion, Condition 23.4 places the onus in respect of providing this information on FCNSW. Indeed, consideration of these matters by FCNSW prior to seeking SSOCs is arguably critical in order that FCNSW operates in accordance with the principles of ESD and thus its own statutory objectives.

22. In our opinion, should FCNSW fail to satisfy the Protocol 5 requirements (as was plainly the case here having regard to the 'Protocol 5 Reports' submitted by FCNSW and to all other materials released to our client pursuant to GIPA EPA623) it is incumbent upon the EPA to address any information deficiencies prior to making a decision on an application for SSOCs (unless the EPA's decision is simply to find that the application is deficient).

Other specific concerns raised in the enclosed expert reports; also Dr Andrew Smith's report, NEFA's Koala surveys & DPIE Koala surveys

23. In addition to concluding that the materials before the EPA CEO(s) were not sufficient to permit the EPA to form a view on the likely impacts of the proposed operations and/or did not comply with Protocol 5.3, the enclosed expert reports raise a number of specific concerns arising from the SSOCs. We highlight the following for your attention (and otherwise refer you directly to the **enclosed** reports):

The importance of recovery in the immediate short term

24. Dr Kooyman was asked to provide his opinion on the minimum period of time required to allow Myrtle SF cpts 10-16 to recover following the 2019/20 bushfire event, in order for the forest to support the persistence of animals that have survived the fire and to support the recovery of the forest. In response, Dr Kooyman stated the following (see **enclosed** report for full response) (emphasis original):

The question highlights the link between vegetation condition and habitat resources for fauna, and the mutualisms that sustain viable populations and allow species to persist in locations. ...

...

The immediate and longer-term consequences for surviving individuals of fauna species resident in, and reliant on resources in the local area can be severe. Timescales for replacement of some resources such as tree hollows can be many decades to 100's of years. While well beyond the stipulated minimum timeframe of this discussion, the persistence of some species (e.g., Yellow-bellied Glider, Squirrel Glider, Masked Owl, Barking Owl) depends on such resources and will ultimately determine their survival locations. In relation to the more immediate (shorter term) availability of food resource and the structural components of the forest that reflect key elements of habitat for different species, **the minimum timescales for recovery of a reasonable range of food resources and functional habitat (e.g., ground vegetation, canopy leaves, and retreat habitat) will be around 1 to 2 years.**

25. In contrast, the NE SSOCs were issued and effective within a few months of the fire events (and, as already discussed, were issued without reference to mandated and critically important information).
26. Dr White emphasises that the 2019/20 fire events occurred in the context of record drought conditions, which he states 'reduced the capacity of the fauna to withstand further habitat destruction'. Dr White specifically talks to the immediate post-bushfire survival needs of animals that did survive the fires:

For those animal species that can survive the immediate impact of drought and fire, their survivorship depends on the amount of ground cover still available, the timing to the first significant rainfall events and the time for

food resources to be replenished. Often a large proportion of the animals that survive the initial impact of drought and fire succumb to predation (lack of cover) or starvation (Newsome et al 1975, Penman et al. 2015).

27. Further (emphasis added):

Logging in these isolated forest remnants poses a significant threat to the surviving fauna (including frogs) because it removes the remnant refugia available to these already dislocated and stressed animals. The animals that have survived the initial onslaught of the fires now desperately need to be able to feed. Food is scarce as the ground cover vegetation has been removed or damaged. For these animals, such as threatened frogs and reptiles, foraging means moving through burnt, open country where there is a high risk of predation. The survival of these animals post-fire depends almost entirely on the presence of some protective vegetation cover. **The intention to log these areas means further removal of protective cover and the possible extermination of those animals that survived the initial fires.**

Longer timescales for recovery and the SSOCs

28. Concerning longer timescales for recovery for individual species, Dr Kooyman's comments extracted at [24] above foreshadow and should be read together with the observations in Dr Andrew Smith's EPA-commissioned report (2020).
29. Dr Smith's report assesses the SSOCs issued across the coastal region and finds that they are 'inadequate to mitigate fire and logging impacts', 'primarily because their time frame (12 months) of application is too short' (p iii). Talking to longer term species-specific recovery times, Dr Smith finds that '[r]ecoverly times are likely to be around 10 years for the Hastings River Muse, 20+ years for the Long-nosed Potoroo and Southern Brown Bandicoot, up to 45 years for the Koala, 20-120 years for the Greater Glider and Yellow-bellied Glider' (p 26). In relation to the SSOCs, Dr Smith's position is that in order for biodiversity to recover from the fires, the SSOCs 'would need to remain in place permanently or for minimum periods of around 20-60 years in [Dry Sclerophyll Forests] and much longer (40->120 years) in [Wet Sclerophyll Forests]' (pp 14-15).
30. Dr Smith's conclusions on longer timescales for recovery highlight a material shortcoming of the SSOCs in terms of achieving the objectives of the CIFOA. They also provide further support for our client's position that the EPA issued the SSOCs without access to and consideration of critically important information: namely, whether the SSOCs would assist in the long term recovery of priority fauna species.

The fire severity mapping

31. Dr Phillips critiques the accuracy and appropriateness of the fire mapping that has been adopted by the EPA. Dr Phillips considers that reliance by the EPA on 'FESM'⁶ mapping as opposed to 'GEEBAM'⁷ mapping has material consequences in terms of permitting a larger area of the forests to be harvested⁸ and further that the application of a precautionary

⁶ Fire Extent and Severity Mapping (FESM), available at: <https://data.gov.au/dataset/ds-nsw-c28a6aa8-a7ce-4181-8ed1-fd221dfcefc8/details?q=>.

⁷ Google Earth Engine Burnt Area Map (GEEBAM), available at: <https://data.gov.au/dataset/ds-nsw-60fe872a-daf7-49d4-8a54-49ee414aaed2/details?q=>.

⁸ See both reports.

approach would see the GEEBAM layer being the preferred option. Bearing this in mind, it is our client's view that the SSOCs permit harvesting in areas that may be protected if applying the GEEBAM layer.

32. A draft report prepared by the NSW Department of Planning, Industry and Environment (**DPIE**) (*DPIE (2020) Post-Fire Koala Surveys (Draft)*, A Saving our Species Project, Northeast NSW) also raises questions as to the reliability of fire severity mapping. The report arises from recent survey work conducted by DPIE in burnt areas of national parks in north east NSW. Part of the work included ground truthing fire severity mapping. The report comments that, 'where possible field site verification of fire severity classes would be beneficial for accurate assessment of fire impacts' (p35).
33. Dr White also raises concerns in relation to the EPA fire mapping – going to the limited focus of the maps on those compartments to which SSOCs apply. Dr White's report comments as follows:

The bushfire burn maps that were available (documents vi, xii, xiii, xiv, x) are a particular concern for me as they may convey completely the wrong impression about the impacts of the fires on the state forests. The fire maps with the EPA logo on them depict the logging coups that are to be felled, for some reason the burnt areas are coloured green. Logging has been proposed in areas where there are still fellable trees present despite the areas having been burnt...

Logging in these isolated forest remnants poses a significant threat to the surviving fauna (including frogs) because it removes the remnant refugia available to these already dislocated and stressed animals.

Will the SSOCs in fact protect Koalas? Fire severity mapping vs identifying actual Koalas

34. In addition to the criticisms of the fire mapping already discussed, Dr Phillips notes the following (emphasis added):⁹

Notwithstanding differences between FESM and GEEBAM layers, there was no data supplied to the EPA's CEO to indicate whether the areas to be categorised as ESAs (*i.e.* unburned or partially burned areas) **actually had koalas in them**, or whether they were of a sufficient size so as to enable koala population persistence within them.

35. This criticism (*i.e.* of relying on FESM as, in essence, a proxy for locating and protecting fauna, in this case the Koala) is supported by other data. As you are aware, our clients have recently provided the EPA with two reports *The Identification of Koala refugia in Myrtle State Forest* and *The Identification of Koala refugia in Myrtle State Forest, Supplementary report 1*. These report on NEFA's recent on ground surveys across approximately 14 ha of Myrtle SF. These surveys resulted in the identification of 42 trees with Koala scats and/or scratch marks. Notably, we are instructed that these trees were identified in areas classified as 'moderate' and 'high' fire intensity in FESM and 'canopy partially affected' in GEEBAM. These findings highlight the importance of on ground Koala surveys to ensure that habitat protection measures in the SSOCs do in fact protect Koala habitat.
36. We also refer you to recent survey work conducted by the NSW Department of Planning, Industry and Environment (**DPIE**) in burnt areas of national parks in north east NSW. These

⁹ See 'Materials considered by the EPA going to impact of the operations on koalas' report.

surveys were conducted to ‘gather ... accurate information on koala persistence within the burnt landscape to inform management responses’. The surveys utilised scat detection dogs. The draft report suggests that neither FESM nor GEEBAM offer a substitute for on ground assessments in order to detect actual presence of Koalas, with many Koala scats identified in areas mapped as burnt under FESM and/or GEEBAM. For example applying GEEBAM to the DPIE survey sites, 23% of scats were identified in the ‘Canopy fully affected’ class; applying FESM, 35% of records were identified in FESM ‘moderate’, ‘high’ and ‘extreme’ severity classes.

Dr Phillips: The vulnerability of Koalas post-fire and the availability of information

37. Dr Phillips expresses strong disagreement with the conclusions stated in the Protocol 5 Reports for Myrtle, Bungawalbin and Doubleduke SFs that the ‘deemed risk to threatened species such as the koala’ was ‘low’: in Dr Phillips’ opinion ‘the risk should have been specified as **High to Extreme**’ (emphasis added).
38. Dr Phillips refers to on ground surveys conducted in recent months in SFs that were burned in the 2019/20 fire events. Dr Phillips reports that these surveys have found an ‘average reduction in the extent of habitat being occupied by koalas as a consequence of the fire events in 2019/20 [of] approximately 71% (range 34%-100%) when standardised against *pre*-fire occupancy levels (Phillips *et al.* 2020)’. Dr Phillips comments that these impacts result in populations being ‘less resilient to follow-on disturbances such as removal of browse trees by logging and subsequent fire events’. Further:¹⁰

if food resources for koalas are diminished by activities permitted by the SSOCs, then the capacity for koala populations to recover *post*-fire is also diminished. ...

39. Dr Phillips states the following (emphasis added):¹¹

In my opinion, the absolute minimum data set that should have been before the EPA CEO prior to issuing SSOCs was that of the *post*-fire occupancy level by koalas in each of the SFs and the specific compartments under consideration. **This knowledge could have been obtained quite readily using adaptive, high-resolution (*i.e.* 350 m - 500 m), systematic survey techniques such as RG-bSAT, the sampling principles thereof being already outlined by CIFOA protocol 20.**

40. Further:¹²

In my opinion, there was an absolute imperative before the EPA to ascertain whether the koala population in a fire-affected area could absorb any further impact before allowing logging activities to occur.

41. Dr Phillips’ concerns as to the importance of actual Koala identification are reflected in Dr Smith’s (2020) report (p 32):

Pre-logging surveys are essential and unavoidable for detection of rare and poorly known species and those that require special protection where they occur. Failure to undertake comprehensive fauna surveys before harvesting creates a risk that some rare and poorly known species will be missed and

¹⁰ See ‘Significant impact of the operations on koalas’ report.

¹¹ See ‘Significant impact of the operations on koalas’ report.

¹² See ‘Significant impact of the operations on koalas’ report.

their habitat destroyed. Under the Precautionary Principle it could be considered essential to undertake comprehensive fauna surveys in all logged compartments at least once prior to harvesting.

Dr Smith specifically recommends pre-logging surveys for Koalas using 'scat searches, direct observation and call recording during mating season (as described by Law et al 2017)' (p 36).

42. Dr Smith also highlights the fragility of fauna populations that have survived in and around burned areas of State Forests (pp ii, 26):

Fauna populations surviving in fire refuges in state forests are at risk of elimination by timber harvesting under the normal Coastal Integrated Forestry Operations Approvals (CIFOA) which could prevent recovery, and cause catastrophic population decline in species such as the Koala, Greater Glider and Yellow-bellied Glider.

Dr Phillips: The importance of retaining koala browse trees using dispersed method rather than the clumped method adopted in the SSOCs

43. Dr Phillips emphasises the importance of protecting preferred browse trees for koalas using a dispersed rather than the clumped method adopted in the SSOCs:¹³

Following a fire event, individual preferred koala browse trees within burnt areas that may have survived are of increased importance for the survival of koalas *post*-fire. They provide necessary food and shelter for koalas because they will be required to travel further and wider to find adequate levels of food due to the reduction in food availability due to the fires.

The fact that the EPA originally wanted the dispersed browse tree approach to be retained as alluded to in the EPA Briefing note dated 3rd March, demonstrates they understood the importance of these trees to koala survival.

44. Notably, the materials released to our client under the GIPA Act indicate that the EPA initially proposed a dispersed tree retention requirement for the NE SSOCs but that, following input from FCNSW, a clumped method was adopted. However, there is no evidence in those materials of either FCNSW or the EPA interrogating the differential impact on the Koala of adopting a clumped method rather than the originally proposed dispersed method.

Dr White: Comments specific to frogs and the importance of ground-truthing each site

45. As noted above, Dr White describes the combined impacts of drought and fires in the burned areas and queries the usefulness of the riparian protection zones required by the SSOCs:

The usefulness of these environmental zones is currently unknown - it is likely that they have been highly compromised during the drought and fires and their role as refugia may no longer apply. The only way to know if they can fulfil their role as refugia and functional habitat is to ground-truth each site in advance of any further disturbances to the area. This has not been done and so the assumption that the environmental zones will provide the necessary protection for threatened species during logging activities no longer applies.

¹³ See both reports.

46. Dr White emphasises the importance of protecting ‘unburnt or lightly burnt remains’ as:

critical for the survival of many frog and reptile species. Disturbances to these small areas could easily prevent the already weakened frog fauna from feeding, accelerate predation of the surviving frogs as the ground cover is removed and result in local extinctions of these animals (Potvin *et al.* 2017).

Additional comments about the materials that were before the EPA CEO(s)

47. In addition to the comments already, we express concern about the following matters that are apparent upon review of the materials that were in the March and May Decision decision briefs (supplemented by the briefing note for the approval of SSOCs for Mogo and South Brooman SFs):
- (a) We note that the fire severity maps (which are in any case subject to criticism) were not included in the March and May Decision decision briefs. As such, it appears that the EPA CEO(s) were not informed as to the nature, severity and scope of the fires within the relevant SF compartments before issuing the SSOCs.
 - (b) The three briefing notes that we have reviewed suggest that the March and May Decisions were materially influenced by a conception that issuing SSOCs for burned areas would protect *unburned* areas from harvesting operations. We see no basis in law for this assumption nor any documentation to suggest that this presumption is one that was reasonably open to the EPA when deciding to issue the SSOCs.

The SSOCs do not accord with the principles of ESFM; the EPA must take such steps as are available to it to improve ecological protections within the relevant State Forests

48. As noted above, the principles of ESFM, including the precautionary principle, are at the heart of the CIFOA and IFOAs more generally, The principles of ecologically sustainable development (**ESD**) as defined in s 6(2) the *Protection of the Environment Administration Act 1991* (NSW) (**POEA Act**) are also of direct relevance to the issues raised in this letter.
49. The principles of ESD overlap to a degree with the principles of ESFM. Notably, both incorporate the precautionary principle.
50. The EPA-commissioned report of Dr Smith, and the reports enclosed with this letter, provide strong evidence to indicate that without further action by the EPA, forestry operations pursuant to the SSOCs will not accord with the precautionary principle, nor will they provide for ecologically sustainable timber extraction. This contradicts the core purpose of the CIFOA. Further, specifically in relation to the Koala, the materials discussed in this letter raise serious questions as to whether the SSOCs for Myrtle, Bungawalbin and Doubleduke SFs will in fact protect Koala habitat (both relevant areas and for an adequate period of time).
51. Bearing this in mind, it is our client’s position that it is incumbent upon the EPA to take such steps as are available to it to ensure that these forestry operations do in fact accord with the principles of ESFM and ESD. According to its statutory mandate, FCNSW should be supportive of such measures: forestry operations that are not ecologically sustainable are directly contradictory to FCNSW’s statutory objectives and, indeed, serious questions arise as to whether such operations can be considered to be compatible with a long term sustainable timber extraction business.

Next steps to better protect the areas that are the subject of SSOCs

52. In light of the above and the expert reports enclosed, we are instructed to request that the EPA take the following action:
- (a) Replace the fire mapping currently adopted for the purpose of the Myrtle, Bungawalbin and Doubleduke SSOCs with GEEBAM and require FCNSW to remap all ESA requirements accordingly.
 - (b) Conduct, or support FCNSW to conduct, thorough on ground surveys of Myrtle, Doubleduke and Bungawalbin SF SSOC areas to identify all Koala fire refugia.
 - (c) Maximise the incorporation of fire refugia for Koalas and other species into permanent exclusions.
 - (d) Consider applying the same or similar measures in respect of all SSOCs (and other species) to the extent that the concerns raised in this letter apply to those, and noting Dr Smith's view as to the inadequacy of the SSOCs and thus the importance of improving protections within those areas.
53. We request that you respond to the concerns raised and requests made in this letter by **Monday 12 October 2020**. If you have any questions in relation to this letter, please contact the writer: emily.long@edo.org.au.

Yours sincerely,

Environmental Defenders Office



Emily Long

Senior Solicitor

Reference number: 2027843



Environmental Defenders Office

APPENDIX

Materials provided to the expert ecologists

Below is a list of all materials provided to Dr Kooyman, Dr Phillips and Dr White (reports attached). We have included tab reference numbers as the experts refer to the documents and tab numbers in their reports.

- (a) Expert Code of Conduct (Tab 1)
- (b) CIFOA Conditions (Tab 2)
- (c) CIFOA Protocols (Tab 3)
- (d) The following Site Specific Operations Conditions and associated fire severity maps issued by the EPA:
 - (i) Myrtle SF SSOCs cpts 010-012, 014-016 (Tab 4)
 - (ii) Myrtle SF SSOCs cpt 013 (Tab 5)
 - (iii) Myrtle SF fire severity map as downloaded from the EPA website on 3 August 2020 (Tab 6)
 - (iv) Bagawa SF SSOCs cpt 028 (Tab 7)
 - (v) Bagawa SF fire severity map as downloaded from the EPA website on 3 August 2020 (Tab 8)
 - (vi) Doubleduke SF SSOCs cpts 001-003, 005-008 (Tab 9)
 - (vii) Doubleduke SF fire severity map as downloaded from the EPA website on 6 August 2020 (Tab 10)
 - (viii) Collombatti SF SSOCs cpts 009-012 (Tab 11)
 - (ix) Collombatti SF fire severity map as downloaded from the EPA website on 3 August 2020 (Tab 12)
 - (x) Styx River SF SSOCs (Tab 13)
 - (xi) Styx River SF Cpt 010 fire severity map as downloaded from the EPA website on 3 August 2020 (Tab 14)
 - (xii) Styx River SF Cpt 011 fire severity map as downloaded from the EPA website on 3 August 2020 (Tab 15)
- (e) Materials that were before the EPA CEO when making the March Decision (March Decision Brief):
 - (i) Briefing note dated 3 March 2020 (Tab 16)
 - (ii) Email from FCNSW to the EPA, dated 21 Feb 2020, attaching draft template SSOC with FCNSW comments (Tab 17) and the following attachment:
 - Draft template SSOC (21 Feb 2020) (Tab 18)
 - (iii) Email from FCNSW to the EPA, dated 2 March 2020, attaching draft template SSOC with FCNSW comments (Tab 19) and the following attachments:
 - Draft template SSOC (2 Mar 2020) (Tab 20)

- Draft '50 m exclusion zone' document (Tab 21)
- (iv) A table that has not been released, due to a claim of legal professional privilege
- (v) An 'Environmental risks table' (Tab 22)
- (vi) Copies of each of the relevant SSOCs (the copies released under the GIPA Act are signed) (see Tabs 4, 5, 7, 9, 11 and 13)
- (vii) A letter from the EPA to FCNSW enclosing the SSOCs dated 3 March 2020 (Tab 23)
- (viii) The Bungawalbin SF Protocol 5 Report (Tab 24)
- (ix) The Myrtle SF Protocol 5 Report (Tab 25)
- (x) The Doubleduke SF Cpts 1, 2, 3 Protocol 5 Report (Tab 26)
- (xi) The Doubleduke SF Cpts 4, 5, 6 Protocol 5 Report (Tab 27)
- (xii) A table described as 'Scientific advice prepared by DPIE' (Tab 28)
- (f) Materials that were before the EPA CEO when making the May Decision:
- (i) Briefing note dated 25 May 2020 (Tab 29)
- (ii) Briefing note dated 3 March 2020 (see Tab 16)
- (iii) A copy of the SSOC for Myrtle SF cpt 13 (see Tab 5)
- (iv) A letter from the EPA to FCNSW enclosing the Myrtle SSOC for cpt 13 dated 25 May 2020 (Tab 30)
- (v) The Myrtle SF Protocol 5 Report (see Tab 25)
- (vi) A document titled 'Environmental Risk Summary – Myrtle SF cpt MYR013', described as 'scientific advice prepared by EPA based on EES data and information for burnt sites' (Tab 31)
- (vii) Email from FCNSW to the EPA, dated 21 Feb 2020, attaching draft template SSOC with FCNSW comments (see Tab 17) and the following attachment:
- Draft template SSOC (21 Feb 2020) (see Tab 18)
- (viii) Email from FCNSW to the EPA, dated 2 March 2020, attaching draft template SSOC with FCNSW comments (see Tab 19) and the following attachment:
- Draft template SSOC (2 Mar 2020) (see Tab 20)
 - Draft '50 m exclusion zone' document (see Tab 21)
- (ix) A table that has not been released, due to a claim of legal professional privilege; and
- (x) An 'Environmental risks table' (Tab 32 (appears to be identical to Tab 22)).
- NB: The EPA has advised that the document titled 'Scientific advice prepared by DPIE' (Tab 28) was not before the decision maker when making the May Decision.
- (g) Department of the Environment, Matters of National Environmental Significance Significant impact guidelines 1.1 (2013) (Tab 33).