Ms. Emily Long
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11th September, 2020

Your ref: 2027843

Dear Ms. Long

I am in receipt of your Brief to me dated 27 August 2020. My response to both the specific questions framed in that Brief to Expert and matters arising follow:

Re: Site Specific Operating Conditions in North East NSW – Materials considered by the EPA going to impact of the operations – Dr Robert M. Kooyman

Division 2, Part 31 of the *Uniform Civil Procedure Rules 2005* (**UCPR**) contains provisions that apply to expert evidence in proceedings brought before the NSW Land and Environment Court (**LEC**). Rule 31.23 provides that an expert witness must comply with the code of conduct set out in Schedule 7 to the UCPR (**Code of Conduct**).

This independent expert advice has been prepared in accord with requirements of Schedule 7 (Expert witness code of conduct) of the Uniform Civil Procedures Rule 2005 and I acknowledge my agreement to be bound by such requirements.

I hold the degree of Master of Science in Plant Ecology from the University of New England (Armidale), and a PhD from Macquarie University (Sydney) in Biological Science (Forest Ecology and Community Ecology). I am currently a Hon. Research Fellow at Macquarie University, a Research Associate with Royal Botanic Gardens, Sydney, and a Research Associate with Missouri Botanic Garden, USA. I have published more than 40 peer-reviewed scientific articles in high impact journals in these fields (e.g., Nature, Science, Annual Reviews, American Journal of Botany, Journal of Ecology) that have contributed to improving our understanding of the origins and assembly of the Australian flora. I have undertaken research in forests and rainforests around the world. My current research projects are focused on the origins, biogeography, and assembly of rainforests and Gondwanan lineages in Australia and Southeast Asia, targeted research with NSW NPWS on threatened plant species distributions and fire responses, and research (including genetic research with Royal Botanic Gardens, Sydney) on the dynamics of vegetation responses to climate variables, land-use, and associated disturbances. For more than 40 years I have lived, worked, and conducted research in the forests and rainforests of north-east NSW, and more broadly in Australia. I worked with (1976-1999) and conducted pre- and post- logging surveys (flora and fauna) for the organisation now known as NSW Forestry Corporation, including in the Casino Region, and including in parts of the State Forest (Myrtle SF) referred to in the Brief provided to me by the EDO (dated 27 August 2020) and which is the subject of the SSOC's issued.

Q1. In your opinion, bearing in mind the impacts of the 2019/20 bushfires, what information did the EPA need to have before it when deciding whether to issue SSOCs for Myrtle SF, in order for it to form an opinion as to the following:

(a) The threatened species, subject species or any habitat that will be or are likely to be directly or indirectly affected by the forestry operations or occur within 50m of the forestry operations (see Protocol 5 cl 5.3(3)(c)(vi)).

In relation to the EPA making decisions to issue SSOCs for Myrtle SF Cpt 13 and in relation to the other compartments in Myrtle SF (Cpts 10-12 and 14-16) referred to in the FCNSW application for special conditions, the EPA needed to have before it:

1. All Threatened Species and Threatened Ecological Community records from the nominated compartments (Myrtle SF Compartments 10-16) and areas adjacent with similar habitat(s).
2. The history of disturbance inclusive of previous logging cycles, volumes removed, and 'stand' condition (including size class distributions and habitat tree retention rates for various habitat components) both pre- and post- the 2019 fire (e.g., Ward et al. 2020).
3. The results of habitat assessments in relation to the known distributions and resource and habitat preferences of threatened flora and fauna species recorded from (or near) the Myrtle SF area. Inclusive of plant species such as *Eucalyptus glaucina* (Slaty Red Gum) a Koala food tree, *Cyperus aquatilus* (Water Nutgrass), *Melaleuca irbeyana* (Weeping Paperbark), and *Grevillea masonii* (Mason's Grevillea).
4. Information about the home range extent, habitat use, feeding resources, and disturbance responses of the Threatened Fauna Species known from the location and areas adjacent.
5. In relation to points 3&4 (above), inclusive of information about the distribution and habitat use by Koala, Yellow-bellied Glider, Squirrel Glider, Masked Owl, Barking Owl, Powerful Owl, Rufous Bettong, Glossy Black Cockatoo, Little Lorikeet, Regent Honeyeater, Grey-headed Flying Fox, Hoary Wattled Bat, Little Bent-winged Bat, and Green-thighed Frog. Additional threatened fauna species known from Myrtle SF and for which habitat occurs in the compartments, and which need to be considered in relation to potential threatened species impacts include Emu, Little Eagle, Brown Tree-creeper, Speckled Warbler, Grey-crowned Babbler, Black-chinned Honeyeater, Varied Sittella, Black-necked Stork, Scarlet Robin, Hooded Robin, Diamond Firetail, Dusky Woodswallow, and Eastern False Pipistrelle.
6. The distribution and intended buffering and protections for Endangered Ecological communities (Floodplain forest types), waterbodies (permanent and ephemeral), and watercourses. Including in relation to seasonal resource pulses relied on by threatened species (e.g., nectar and new leaf emergence from species of *Eucalyptus* and *Corymbia*, seeds from species in Casuarinaceae, and eruptive breeding opportunities in relation to the inundation of watercourses, wetlands, and waterbodies).
7. Based on the information and resources described above, pre- and post-fire field survey results describing the extent and condition of habitat components relative to the species described in point 5 above, and the threatened species detected during pre-logging surveys (with mapped locations).

(b) The potential impacts of the [proposed operations] either directly or indirectly on any threatened species, subject species or habitat, including aquatic habitat, wetlands, waterbodies and threatened species habitat (for example, the creation of a barrier to movement, increasing threats) (Protocol 5 cl 5.3(3)(c)(v))

Potential impacts on threatened species and their habitats from the described actions (post-fire logging and tree removal) needed to be assessed and provided to the EPA in the context of the recent fires (e.g., high intensity fire has been mapped across most Compartments of Myrtle SF), previous logging history, and projected rates of recovery and return of key habitat resources for threatened and other species (refer to points 3 to 5 above).

Given the stated intent in the Harvest Plan to remove a high proportion of high quality logs (>45cm dbhob) and fire affected stems, and retain mostly 'growers' (<45cm dbhob), the impacts of the proposed forestry activities on dependent fauna habitat components will be significant. In addition, the stated intention to retain only potential Glossy Black Cockatoo habitat trees (Casuarinaceae) >30cm dbhob and only smaller *Allocasuarina* with actual evidence of Glossy Black Cockatoo feeding is likely to result in many individuals of this group going undetected and being destroyed in the logging operation.

Given the recent fire history, as a minimum, the EPA should have been provided with a description of the buffers and actions designed to enhance (not reduce) and protect waterways, watercourses, drainage lines, wetland habitats, and all fauna habitat resources.

As a minimum, the EPA should have been provided with an inventory of habitat tree retention across tree species and size classes that would facilitate arboreal and terrestrial species feeding, movement, and retreat habitat relative to species level perceptions of threat (risk) (refer to Gaynor et al. 2019).

As a minimum, the EPA should have been provided with a habitat Risk and Impact assessment, taking into account recent logging history, the recent (2019) fire impacts, and the additive impacts from past logging, recent fire, and the proposed logging (refer to Lindenmayer et al. 2020).

(c) Whether the proposed operations would accord with the principles of ecologically sustainable management (as defined in s 69L(2) of the Forestry Act 2012 (NSW)).

(i) Maintaining forest values for future and present generations (Forestry Act s 69L(2)(a))

In relation to the principles of ecologically sustainable forest management, the proposed logging and tree removal under the site specific operating conditions issued by EPA would not maintain forest values for future and present generations, because:

(i) forest biological diversity will be impacted and likely diminish as a consequence of the brief time for recovery since major fires;
(ii) the productive capacity and sustainability of the forest ecosystems will be diminished with the reduction of habitat values, larger tree removal, and the operation of machinery and removal of biomass so soon after major fire;
(iii) the health and vitality of the native forest ecosystems will be further compromised by additive disturbances (fire and logging in close succession)

(iv) soil and water quality and vegetation processes can only be compromised by heavy machinery operating on ash bearing soils with regenerating vegetation following intense fire.

(ii) Applying the precautionary principle (as referred to in section 6(2)(a) of the Protection of the Environment Administration Act 1991) in preventing environmental harm (Forestry Act s 69L(2)(e)).

In relation to applying the precautionary principle to prevent environmental harm I would expect to see information that provided a clear assessment and comparison of the cumulative impacts of different options. For example, quantification and comparisons of impacts on the Myrtle SF area and surrounding areas of habitat for all threatened and subject species and ecological values of:

1) logging burned areas,
2) not logging burned areas but expanding logging into unburned areas (if such areas exist in the surrounding area or region), and
3) delaying forestry activities until the forests had time to recover.

I would also expect the information provided to describe the location of unburned areas and how they compare (ecologically) to the burned areas of Myrtle SF proposed for forestry activities, the area of unburned forest to be protected from logging, and the duration of such protection.

In my opinion, if such information had been made available to the EPA for their assessment, the decision framework would have been quite different. In that case, the EPA would likely have recognised the need to delay forestry activities until these forest areas and associated habitats had recovered from the cumulative impacts of multiple disturbances. In addition, it would have been clear to the EPA that the stated rationale for the forestry operations and the identified trade-offs between approving modified operating conditions for forestry activities in burned areas, and logging unburned areas (where the latter remain unspecified and undescribed) do not align with, or provide sufficient information to guide the application of the precautionary principle to prevent environmental harm.

In my opinion undertaking the proposed activities (logging) after high intensity fire without such detailed information conflicts with the application of the precautionary principle and its intent to prevent environmental harm.

In the EPA Briefing Note dated 3 March 2020 and included in the decision brief relating to the SSOC for Myrtle SF (Tab 16 of my brief) it is clearly stated:

> "The Coastal IFOA permits FCNSW to carry out forestry operations subject to conditions, however it does not address the permissibility of these operations in the context of catastrophic fires. Specifically, it does not set environmental controls to mitigate the likely cumulative impacts on native species, critical habitat, soils and streams of logging operations in fire affected forest".

In my opinion, the site specific conditions approved by EPA for the logging of Myrtle SF were intended to facilitate forestry activities in burned areas of forest. The information provided was not sufficient to allow an evaluation of the additional environmental controls needed to mitigate the likely cumulative impacts on native species, critical habitat, soils, and streams, of logging operations in that fire affected forest.

(iii) Ensuring public participation (Forestry Act s 69L(2)(b))

In relation to ensuring public participation, provision of information, accountability and transparency in relation to the carrying out of the proposed forestry operations, or the alteration of the provisions governing the conduct of operations:

The EPA documents provided to me refer to posting the revised operating conditions on the EPA web site. There is no description of public participation in relation to the development of SSOCs. However, the EPA's decision to post revised conditions on their website does provide some level of public participation at the post decision operational stage.

(iv) Providing incentives for voluntary compliance etc (Forestry Act s 69L(2)(c))

In relation to the provision of incentives for voluntary compliance, capacity building and adoption of best-practice standards, these factors are outside my area of expertise.

(i) Applying best-available knowledge etc (Forestry Act s 69L(2)(d))

In relation to the application of best-available knowledge and adaptive management processes to deliver best-practice forest management, these factors are outside my area of expertise.

Q2. In your opinion, did the materials that were before the EPA CEO when making the March Decisions (i.e. the documents listed at [35(e)] [of my brief]) – insofar as those materials related to Myrtle SF – contain the following information:

(a) The reasons why it was necessary for FCNSW to conduct the activity (Protocol 5 cl 5.3(2)(b)(ii)).

The stated reason for FCNSW to conduct the activity (as described by the EPA) was to allow FCNSW to undertake forestry operations in burned areas of various State Forests (Tab 16 of my brief), including Myrtle SF.

FCNSW comments in its Protocol 5 report that the SSOCs were 'necessary for timber supply' in the short term. In general, post fire harvesting operations are usually only considered 'urgent' in relation to salvaging some fire intolerant species or damaged individuals of native species, and this depends on the severity of the harm inflicted by fire. No clear evaluations of those factors were provided by FCNSW to the EPA. Consequently, the EPA may not have had enough information before it to form a view that going into areas of Myrtle SF was in fact 'urgent' and necessary to mitigate broader environmental harm, or stand decline.

The rationale for the forestry operations was also stated as being to avoid conducting logging / harvesting operations in unburned areas. This suggests that unburned areas were defined and delineated and retained as some sort of trade-off to reduce environmental impacts. However, no information about unburned areas was made available in the documents provided to me. In my opinion, and as a minimum, the information required by EPA to evaluate this aspect of the reason for the FCNSW proposal for EPA approval of SSOC's would include a clear statement of the location, area, and landscape context of protected (unburned) forest and habitats, the vegetation type and condition, the extent to which the proposed protected areas would provide habitat for the species present in the proposed logging areas, and the duration of their protection. It was unclear from the information provided to me what means would be used to secure the intended

outcome of protecting unburned forest, if this equated with a like for like trade-off, and if so over what time period this would be implemented and secured.

In my opinion, the reasons for the application by FCNSW to conduct the activity were stated, however, the explanation for how such activities would be implemented in a manner that would achieve the stated objective of protecting unburned forest was not.

(b) An assessment and description of any threatened species, subject species or any habitat that will be or are likely to be directly or indirectly affected by the forestry operations or occur within 50 metres of the forestry operations (Protocol 5 cl 5.3(3)(c)(iv)).

A list of threatened species known from or regarded as likely to be located on the site, a map of threatened species records, and a description of four flora species (but no fauna species) listed as threatened species (NSW BCA 2016) were included in the brief you provided to me at Tab 6; Myrtle Plan 200000466 Ecology Report provided by FCNSW.

However, this document was not listed as provided to EPA in the decision brief.

Regardless of that omission, the descriptions of subject species or any habitat that will be or are likely to be directly or indirectly affected by the forestry operations or occur within 50 metres of the forestry operations were not adequately described in the FCNSW Ecology Report in relation to describing specific habitat components, species biology or the impacts of the proposed forestry activities on the species or their habitats.

(c) The potential impacts of the restricted activity either directly or indirectly on any threatened species, subject species or habitat, including aquatic habitat, wetlands, waterbodies and threatened species habitat (for example, the creation of a barrier to movement, increasing threats) (Protocol 5 cl 5.3(3)(c)(v)).

Quantification of impacts and identification of specific potential impacts (either direct or indirect) for all subject species (threatened species) were not provided. Some general discussion in relation to Koala feed trees was provided, as was a general overview of habitat exclusions (clumps), but given their very small size and constrained distribution these are not (in my opinion) likely to provide adequate buffering for the subject species, and they were not described in relation to all subject species as described in Protocol 5 (see above).

(d) An assessment of past disturbance in the proposed area of the restricted activity (Protocol 5 cl 5.3(3)(c)(vi)).

Past disturbances, including previous logging disturbances were referred to in the documents provided to me (Tab 25 (Myrtle SF Protocol 5 Report); Table Protocol 5.3 (3) (b) & Protocol 5.3 (3) (c) - Report Requirements). However, detailed assessment of tree and tree species size class distributions prior to and following the previous logging, and subsequent to the recent (2019-2020) fire were not provided to EPA for their assessment of the proposal for the conduct of forestry activities under SSOCs. In addition, cumulative effects of the different disturbances and logging cycles were not clearly described. This deficiency extended to the EPA and FCNSW fire severity mapping (Tab 6 of my brief; Myrtle Plan 200000466 Ecology Report) where severity was not clearly mapped and only a dichotomous key (burned / partially burned) was provided. The fire severity mapping and Ecology report were not in the EPA's decision brief.

(e) In relation to each of the above, was the information before the EPA sufficient so as to permit the decision maker to form a view on the potential impacts of the proposed harvesting operations?

No. Potential impacts (by definition) include impacts on all subject (threatened species) and their habitats, and necessarily need to include an evaluation of cumulative impacts. Such information was not provided to the EPA such that the decision maker could have formed a view on, or evaluated, the potential impacts of the proposed harvesting operations on all subject species, habitats, and landscape features described (Protocol 5 cl 5.3(3)(c)(v)).

(f) In relation to each of the above, was the information before the EPA sufficient so as to permit the decision maker to form a view on whether the proposed harvesting operations would accord with the principles of ESFM?

No attempt to apply the precautionary principle is evidenced in the materials provided.

The site specific conditions approved by EPA for the logging of Myrtle SF Compartments do not provide additional environmental controls to mitigate the likely cumulative impacts on native species, critical habitat, soils, and streams, of logging operations in that fire affected forest. The intention (as stated) was to facilitate forestry activities in burned areas of forest.

Q3. In your opinion, did the materials that were before the EPA CEO when making the May Decision (which related only to Myrtle SF cpt 13) (i.e. the documents listed at [35(f)] [of my brief]), contain the following information:

(a) The reasons why it was necessary for FCNSW to conduct the activity (Protocol 5 cl 5.3(2)(b)(ii)).

In relation to Myrtle SF cpt 13 and the questions and factors identified below it should be noted that the materials that were provided to me in my brief and which were before the EPA for the March and May decisions differed. In particular, Tab 28 was in the March decision brief but not the May decision brief; Tab 31 was in the May decision brief but not the March decision brief.

In all other matters my response to the questions and factors/matters identified in the brief to me for Myrtle cpt 13 (May Decision) remain the same as those described above for the other compartments (10-12 and 14-16) in Myrtle SF (March Decision).

The stated reason for FCNSW to conduct the activity (as described by EPA) was to allow FCNSW to undertake forestry operations in burned areas of various State Forests (Tab 16 of my brief), including Myrtle SF cpt 13.

I repeat my comments stated above in response to Question 2(a).

(b) An assessment and description of any threatened species, subject species or any habitat that will be or are likely to be directly or indirectly affected by the forestry operations or occur within 50 metres of the forestry operations (Protocol 5 cl 5.3(3)(c)(iv)).

Please refer to my response above at Question 2(b), which I repeat here.

(c) The potential impacts of the restricted activity either directly or indirectly on any threatened species, subject species or habitat, including aquatic habitat, wetlands, waterbodies and threatened species habitat (for example, the creation of a barrier to movement, increasing threats) (Protocol 5 cl 5.3(3)(c)(v)).

Please refer to my response above at Question 2(c), which I repeat here.

(d) An assessment of past disturbance in the proposed area of the restricted activity (Protocol 5 cl 5.3(3)(c)(vi))

Please refer to my response above at Question 2(d), which I repeat here.

(e) In relation to each of the above, was the information before the EPA sufficient so as to permit the decision maker to form a view on the potential impacts of the proposed harvesting operations?

Please refer to my response above at Question 2(e), which I repeat here. Please also see my response to Question 2(c).

(f) In relation to each of the above, was the information before the EPA sufficient so as to permit the decision maker to form a view on whether the proposed harvesting operations would accord with the principles of ESFM?

Please refer to my response above at Question 2(f), which I repeat here..

Q4. In your opinion, what is the minimum period of time required to allow Myrtle State Forest Compartments 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 fires and to support the recovery of the forest?

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. Threatened Fauna Species records, and fire severity mapping overlayed on to forest type mapping provide clear evidence that Cpts 10-16 Myrtle SF were severely impacted by fire in late 2019, and that habitat and resources for several threatened species known from (or near) the location have been impacted.

The fire intensity mapping suggests the compartment areas were subjected to predominantly high intensity crown fire. Such fires invariably burn and remove most of the understorey (small trees, shrubs, and above-ground vegetation including grasses and herbs), can damage trees (inducing bark decortication or intrusion of fire into stems), and result in crown scorch which removes all of the live tree leaf biomass. For species of *Eucalyptus* and *Corymbia* the latter results in sometimes prolific epicormic (branch and stem) leaf replacement (post-fire).

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 in locations. In relation to the more immediate (shorter term) availability of food resources 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**. This reflects one to two full cycles of growing seasons following re-establishment (post-fire), and allows time for both flowering and fruiting (seeding) cycles to be completed across multiple species.

Shorter term recovery from fire includes factors such as resprouting of shrubs, grasses, and herbs, re-establishment of plant species from seed (both from soil seed reserves and via dispersal), and subsequent growth of canopy branchlets and sun leaves (replacing epicormic sprouting) of major tree species (e.g., Koala feed trees).

References

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Lindenmayer DB, Kooyman RM, Taylor C, Ward M, Watson JEM. 2020. Recent Australian wildfires made worse by logging and associated forest management. *Nature Evolution and Ecology* 4:898-900. https://doi.org/10.1038/s41559-020-1195-5

Ward M, Tulloch AIT, Radford JQ, Williams BA, Reside AE, Macdonald SL, Mayfield HJ, Maron M, Possingham HP, Vine SJ, O'Connor JL, Massingham EJ, Greenville AC, Woinarski JCZ, Garnett ST, Lintermans M, Scheele BC, Carwardine J, Nimmo DG, Lindenmayer DB, Kooyman RM, Simmonds JS, Sonter LJ, Watson JEM. 2020. Impact of 2019–2020 mega-fires on Australian fauna habitat. *Nature Ecology and Evolution* https://doi.org/10.1038/s41559-020-1251-1

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Relevant documents provided to me:

The following documents were provided for my review:

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. Tab 28 was in the March decision brief but not the May decision brief; Tab 31 was in the May decision brief but not the March decision brief.

NB: I read only those documents related to Myrtle SF.

Documents **not read** included:

d) The following Site Specific Operations Conditions and associated fire severity maps issued by the EPA

(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)

(xi) 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):

(viii) The Bungawalbin SF Protocol 5 Report (Tab 24)

(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)