

## **Portfolio Committee No. 7 – Planning and Environment**

### **Inquiry into koala populations and habitat in New South Wales**

#### **SUPPLEMENTARY QUESTIONS – Hearing 26 February 2020**

#### **Mr Dean Kearney, Senior Manager, Planning, Hardwood Forests Division, Forestry Corporation of NSW**

1. Can you please provide the committee with copies of reports (including the relevant sections of IPCC reports) you referred to as describing forestry as a carbon positive land use?
2. Are you aware of refereed reports that don't agree that forestry is a carbon positive land use?
  - a. Do you agree with them?
  - b. If not, why not?
3. Has the "Force Majeure" clause ever been exercised in NSW in relation to Government wood supply contracts?
4. Have you sought advice on the possible application of Force Majeure following the recent fires?
5. Does the Forestry Corporation of NSW have any policy settings to guide when Force Majeure may be recommended?
6. You mentioned the important "high durability" products produced from native forests as poles, piles, bridge timbers, decking, and flooring. For each of these products can you please:
  - a. specify which are being produced from hardwood plantations
  - b. specify the long term trend in demand; and
  - c. the availability of alternative timber or a non-timber substitute?
7. How many permanent full-time positions are currently within the Forestry Corporation of NSW?
8. How many contract positions are currently within the Forestry Corporation of NSW?
9. How many Forestry Corporation of NSW personnel were fighting fires this bushfire season?
10. What percentage of the Forestry Corporation of NSW personnel were fighting fires?
11. Under the previous IFOA the Forestry Corporation of NSW was required to undertake Koala Mark-up Searches in accordance with TSL 5.2.2 where they thoroughly search for koala scats (faecal pellets) ahead of logging in potential habitat:
  - a. Please provide details of all areas which were subject to such searches.
  - b. How many koalas were found in each area identified above?
  - c. How many trees with koala scats were found in each area identified above?
12. The Forestry Corporation of NSW was required to identify Koala High Use Areas:
  - a. How many of these were identified?
  - b. What area did they cover?
  - c. Which of these areas were logged in subsequent operations because they were found to no longer be Koala High Use Areas?

- d. What insights does the Forestry Corporation of NSW consider this data gives on koala populations?
13. The Forestry Corporation of NSW's evidence relating to logging operations on the north coast is confusing. The impression given is that there is no logging of native forests occurring, though recent media reports have identified that logging is occurring in a patch of unburnt forest in Styx River State Forest, as well as burnt forest.
  - a. How much of Styx River State Forest was burnt in the wildfires and how much was unburnt?
  - b. How many hectares of burnt and unburnt forests have been logged since the fires?
  - c. When were fauna surveys last undertaken in these areas?
  - d. What additional prescriptions were applied to these operations?
  - e. Is it correct that these operations were undertaken in modelled koala habitat?
14. What other logging operations have the Forestry Corporation of NSW undertaken in native forests in north-east NSW since September 2019?
  - a. What compartments were logged?
  - b. What areas of unburnt and burnt forests were logged?
  - c. What areas of modelled koala habitat were logged?
  - d. Were any areas of OEH Koala Hubs logged, if so what number and area?
  - e. What additional prescriptions were applied to these operations?
  - f. Which logging operations are currently being undertaken?

## Answers to questions to Dean Kearney

1. The most recent IPCC report is available at [https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM\\_Approved\\_Microsite\\_FINAL.pdf](https://www.ipcc.ch/site/assets/uploads/2019/08/4.-SPM_Approved_Microsite_FINAL.pdf). See B5.3 / B5.4 (page 25) for sustainable forestry references.

Other relevant reports include:

The Food and Agriculture Organization of the United Nations report *Forestry for a low-carbon future*, available at <http://www.fao.org/3/a-i5857e.pdf>

*Carbon stocks and flows in native forests and harvested wood products in SE Australia* by researchers Fabiano Ximenes, Dr. Huiquan Bi, Nick Cameron, Rebecca Coburn, Michael Maclean, Dave Sargeant and Matthew Mo (Forest Science - NSW Department of Primary Industries); Dr. Stephen Roxburgh (Ecosystem Sciences - CSIRO), Michael Ryan (VicForests); Justin Williams (Forestry Corporation of NSW); Ken Boer (previously FCNSW) available at <https://www.fwpa.com.au/rd-and-e/resources/883-carbon-stocks-and-flows-in-native-forests-and-harvested-wood-products-in-se-australia.html>, which demonstrates the positive role of native hardwood poles and illustrates the impact of taking into account substitution effects in the greenhouse gas balance.

*Greenhouse Gas Balance of Native Forests in New South Wales, Australia* by Fabiano de Aquino Ximenes, Brendan H. George, Annette Cowie, Justin Williams and Georgina Kelly, available at <https://www.mdpi.com/1999-4907/3/3/653>

Australian Government figures around net emissions for the land sector, including forestry, are available at <https://www.environment.gov.au/system/files/resources/f4bdfc0e-9a05-4c0b-bb04-e628ba4b12fd/files/lulucf-emissions-projections-2014-15.pdf>. Table 10 on page 30, shows net emissions for "forest management lands" areas (including production native forests and softwood plantations) are historically negative and forecast to remain negative (meaning carbon positive). Table 11 shows the same for hardwood plantations. New timber plantation establishment is eligible for carbon credits under the national Emissions Reduction Fund.

Forestry Corporation of NSW publishes information on the estimated volume of CO<sub>2</sub> sequestered in standing volume and stored long-term in harvested products. This information is updated annually and published in the Sustainability Report on Forestry Corporation's website at <https://app.powerbi.com/view?r=eyJrIjoib2E1Y2Q2OWltMjg1Yi00M2RjLWl0MTItNmY1M2E2MWRhZmQ2IiwidCI6IjdlODcyMjA5LWY3MGItNDU3OC1hNzk5LTA4YTdjZjAzODI3NSIsImMiOiJlEwfQ%3D%3D>

2. Although it is universally agreed that deforestation and forest land degradation lead to bad climate outcomes, afforestation and sustainable forestry are also widely acknowledged as positive climate mitigation tools. There are some researchers who have published studies which suggest that existing native forest harvest in Australia leads to poor climate outcomes. However, when a full life cycle approach is taken which considers carbon storage in wood products and the displacement of carbon-intensive materials, the results typically show the carbon positive nature of the industry.

The Intergovernmental Panel on Climate Change report referenced above notes that each finding is grounded in an evaluation of underlying evidence and agreement. A level of confidence is expressed using five qualifiers: very low, low, medium, high and very high. The findings in relation to forestry are given the highest rating of high confidence.

3. Yes.

4. Yes. With fires impacting large areas of native forests, hardwood plantations and softwood plantations, Forestry Corporation has declared force majeure on a number of contracts due to the impacts of fire and advised many of its customers and contractors that it may not be able to meet some of its contractual commitments in fire-affected areas.
5. Force majeure is a legal contractual matter not a policy matter. Wood Supply Agreements for Forestry Corporation's Hardwood Forests Division are published on the Forestry Corporation website and force majeure provisions are detailed in these contracts.
6.
  - a) In NSW, hardwood plantations alone cannot meet demand for hardwood timber products as they account for around 20 per cent of the available timber resource, increasing to around 40 per cent over the next 50 years as younger plantations begin to reach maturity. The species grown in hardwood plantations are generally limited to those with the capacity to grow well enough on each site to produce a positive financial return over the rotation period (about 30-40 years). Those species that are naturally stronger or more durable are generally slower growing and are mostly grown in conjunction with a mix of other species in sustainably managed natural forests over longer periods. These naturally durable species are in demand for a wide range of end products where their durability and strength features are required. Some quantities of Blackbutt and Spotted Gum are grown in Forestry Corporation's hardwood plantations and some of these which meet strict size and straightness specifications are sold as hardwood poles and piles but need to be chemically treated to increase their durability. These species are also suitable for hardwood flooring.
  - b) Demand for naturally strong and durable species has outstripped the level of supply available for Forestry Corporation's forests for many years. These species are desired for specialist products where strength and durability are required such as poles piles, girders, bridge timbers, railway timbers, specialist architectural timbers and beams. This constrained demand is reflected in their high market values. The limited supply has required the market to seek alternative supplies for some of some products (for example steel, concrete, spun polymer fibres) which are less environmentally friendly, more expensive and logistically more difficult to handle and manage than sustainably produced timber. The major markets for these high strength and durability products include state-owned and regulated utilities along with commercial tourism and retail developments. Demand from State-owned utilities organisations is directed towards ongoing development, maintenance and replacement programs for electricity and transport (wharves, bridges etc.) infrastructure needs across NSW and other States.
  - c) Forestry Corporation's expertise is in forest management and renewable timber production. Questions about the availability of alternative timber or non-timber substitutes for various products would best be best addressed to the producers or consumers of those end-products.
7. Forestry Corporation staff numbers are published in the Annual Report each year. The number reported is the number of Full Time Equivalent staff employed at the reporting period closest to 30 June, including staff on permanent or term contracts. It is noted that up to 200 additional seasonal staff are engaged each fire season and not captured in the reported figure.
8. The majority of Forestry Corporation staff are employed under an Enterprise Agreement, with senior staff and term or casual staff employed under common law contracts. Forestry Corporation does not

separate which staff are employed under the EA or various types of employment contracts when reporting full time equivalent staff. It is important to note that a large range of activities including timber harvesting, haulage and processing, planting, inventory remote sensing may be carried out under service or supply contracts with third party businesses, not employment contracts. Each of these businesses has their own workforce ranging from sole operators to organisations with several hundred staff and information about their employment figures would be best directed to those businesses. Forestry Corporation publishes a contracts register and wood supply agreements on its website.

9. All Forestry Corporation staff are required to support firefighting efforts either in active firefighting or support roles. During the 2019-20 fire season, more than 500 staff claimed a firefighting allowance for active involvement in firefighting. These staff completed 16,500 individual fire shifts, equating to more than 260,000 hours of firefighting.
10. All staff play some role in firefighting, from frontline firefighting to support services. Between August and the end of February 38 per cent of hours per cent of hours worked by Forestry Corporation staff were directly involved in fire mitigation and suppression, against an annual average of around 10 per cent.
11. This information is not available. The IFOAs for the Upper North East, North East, South Coast and Eden regions, which were replaced with the Coastal IFOA, have been in place since 1999 and has covered thousands of operations over this time. The TSL conditions 5.2.2 would have been triggered and applied in the majority of north coast operations over 20 years, however this did not include a requirement to record and report this information.
12. a-c. This information is not available. The IFOAs for the Upper North East, North East, South Coast and Eden regions, which were replaced with the Coastal IFOA, have been in place since 1999 and covered thousands of operations in that time. The TSL conditions 5.2.2 would have been triggered and applied in the majority of north coast operations over 20 years, however this did not include a requirement to record and report this information.

d. Wherever koala records (including sighting of individuals, call detections and faecal pellet detections) are found, they are entered into a central database maintained by the NSW Government. Forestry Corporation staff have entered a significant number of koala records into this database over many years as a result of searches carried out ahead of harvesting operations. The information is somewhat informative about the location of some koala populations, however it is not comprehensive information as these records are concentrated on the areas where koala searches have taken place, which is largely ahead of active harvesting areas and not in areas set aside and managed for conservation. The records do not provide information that allows for estimates of population numbers or trends. Recent research carried out by Dr Brad Law and referenced in Forestry Corporation's submission provides significantly greater insights on koala populations as it establishes koala occupancy and habitat across tenures at a landscape scale.
13. It was clearly noted in evidence that around 70 per cent of capacity for harvesting in hardwood forests was in timber plantations (at the time evidence was given), however some harvesting was also taking place in native forests areas including a small area in Styx River. Sales records for February 2020 show that 67 per cent of all timber produced from NSW coastal forests was from timber plantations, this is against an average of 16 per cent over the past five years.

- a. Styx River State Forest is 17,124 hectares in size. 12,337 hectares were subject to moderate to severe fire, while 4787 hectares were subject to no fire or very mild fire.
- b. Forestry Corporation has continuously been operating in this forest for many months. The most recent operations, which were recently completed, commenced in July 2017. The unburnt area harvested in Styx River State Forest during January 2020 was around 69 hectares (this is 0.4% of the total area of Styx River State Forest). Since that time Forestry Corporation has received approval from the NSW Environmental Protection Agency to begin harvesting in burnt areas which commenced on 9 March 2020.
- c. Fauna surveys for this area were conducted both prior to the plan being finalised in 2019 and also directly ahead of harvesting during the mark-up process our records indicate these surveys were undertaken in the weeks before harvesting commenced
- d. All operations are carried out in line with the conditions of the IFOA. Where additional site-specific conditions have been issued by the Environment Protection Authority for harvesting in burnt areas, these are published on the EPA's website.
- e. All forested land on the north coast is modelled koala habitat under the habitat model published by the Department of Primary Industries, but the quality of the habitat is variable. Under the habitat models, forested land can be categorised as very high, high, moderate or low quality koala habitat.

14. In relation to native forests in north-east NSW since September 2019:

- a. The list provided below covers all areas of coastal state forest where harvesting took place between September 2019 and March 2020.
- b. Fires commenced on the north coast in July 2019 and on the south coast in November 2019 and did not impact all areas of NSW uniformly in terms of timing or geography. Operations have been carried out in line with the requirements of the IFOA and plans published on Forestry Corporation's website throughout fire season. Generally, harvesting operations took place over this period in unburnt forests, however some areas may have been burnt following harvesting and in a small number of burnt areas of some compartments where it was safe to do so over this period.
- c. All forested land on the north coast is modelled koala habitat under the habitat model published by the Department of Primary Industries, but the quality of the habitat is variable. Under the habitat models, forested land can be categorised as very high, high, moderate or low quality koala habitat.
- d. Forestry Corporation does not hold information on OEH Koala Hubs.
- e. All operations have taken place in line with the conditions of the IFOA. Where applicable, additional site-specific conditions for selective harvesting in fire-affected forests are published on the EPA website.
- f. Information about active operations is published on Forestry Corporation's Plan Portal, which can be accessed via the Forestry Corporation website.

Table of state forest areas where harvesting took place September 2019 to March 2020

Region	Plantation / Native	Forest	Compartment
North Coast	Native	Bago	1988
North Coast	Native	BALLENGARRA	7
North Coast	Native	BALLENGARRA	8
North Coast	Native	BALLENGARRA	85
North Coast	Native	BARRINGTON TOPS	63

North Coast	Native	BARRINGTON TOPS	65
North Coast	Native	BELLANGRY	1
North Coast	Native	BELLANGRY	9
North Coast	Native	BELLANGRY	10
North Coast	Native	BOUNDARY CREEK	255
North Coast	Native	BOUNDARY CREEK	256
North Coast	Native	BOUNDARY CREEK	257
North Coast	Native	Bryant Profit a Prendre	101
North Coast	Native	Bryant Profit a Prendre	104
North Coast	Native	BULGA	88
North Coast	Native	BULGA	89
North Coast	Native	BULGA	90
North Coast	Native	BULLS GROUND	60
North Coast	Native	BULLS GROUND	61
North Coast	Native	BURRAWAN	29
North Coast	Native	CHICHESTER	19
North Coast	Native	CHICHESTER	26
North Coast	Native	CLOUDS CREEK	123
North Coast	Native	CLOUDS CREEK	127
North Coast	Native	CLOUDS CREEK	166
North Coast	Native	CLOUDS CREEK	172
North Coast	Native	CLOUDS CREEK	173
North Coast	Native	CLOUDS CREEK	174
North Coast	Native	CLOUDS CREEK	178
North Coast	Native	COMBOYNE	144
North Coast	Native	COMBOYNE	145
North Coast	Native	Ewingar	664
North Coast	Native	Ewingar	669
North Coast	Native	Gibberagee	104
North Coast	Native	Gibberagee	105
North Coast	Native	Gibberagee	106
North Coast	Native	Gibberagee	117
North Coast	Native	Gibraltar Range	26
North Coast	Native	Girard	456
North Coast	Native	Girard	457
North Coast	Native	GIRO	19
North Coast	Native	GLADSTONE	212
North Coast	Native	GLADSTONE	213
North Coast	Native	GLADSTONE	229
North Coast	Native	GLADSTONE	230
North Coast	Native	Greensill Stockyard	1
North Coast	Native	Harvestco Stockyard	1
North Coast	Native	KANGAROO RIVER	244
North Coast	Native	KEREWONG	117
North Coast	Native	KEREWONG	134

North Coast	Native	KEREWONG	135
North Coast	Native	KEREWONG	136
North Coast	Native	KIWARRAK	20
North Coast	Native	KIWARRAK	22
North Coast	Native	LANSDOWNE	178
North Coast	Native	LANSDOWNE	179
North Coast	Native	LANSDOWNE	197
North Coast	Native	Mount Belmore	405
North Coast	Native	Mount Belmore	406
North Coast	Native	MOUNT BOSS	183
North Coast	Native	MYALL RIVER	34
North Coast	Native	MYALL RIVER	35
North Coast	Native	MYALL RIVER	50
North Coast	Native	MYALL RIVER	53
North Coast	Native	NUNDLE	412
North Coast	Native	NUNDLE	414
North Coast	Native	NUNDLE	415
North Coast	Native	OLNEY	66
North Coast	Native	OLNEY	82
North Coast	Native	ORARA WEST	639
North Coast	Native	OURIMBAH	141
North Coast	Native	OURIMBAH	142
North Coast	Native	RIAMUKKA	81
North Coast	Native	RIAMUKKA	96
North Coast	Native	SHEAS NOB	186
North Coast	Native	STYX RIVER	540
North Coast	Native	STYX RIVER	541
North Coast	Native	STYX RIVER	542
North Coast	Native	TAMBAN	74
North Coast	Native	UPSALLS CREEK	142
North Coast	Native	UPSALLS CREEK	143
North Coast	Native	UPSALLS CREEK	260
North Coast	Native	WANG WAUK	145
North Coast	Native	WAY WAY	75
North Coast	Native	WILD CATTLE CREEK	533
North Coast	Native	WILD CATTLE CREEK	551
North Coast	Native	WILD CATTLE CREEK	552
North Coast	Plantation	BALLENGARRA	1
North Coast	Plantation	Beury	7095
North Coast	Plantation	BONALBO	7129
North Coast	Plantation	BURRAWAN	10
North Coast	Plantation	CONGLOMERATE	22
North Coast	Plantation	DINGO	59
North Coast	Plantation	DINGO	100
North Coast	Plantation	DINGO	105



North Coast	Plantation	DINGO	106
North Coast	Plantation	LANSDOWNE	178
North Coast	Plantation	LOWER BUCCA	598
North Coast	Plantation	MYALL RIVER	8
North Coast	Plantation	MYALL RIVER	54
North Coast	Plantation	NEWRY	3
North Coast	Plantation	NEWRY	4
North Coast	Plantation	NEWRY	9
North Coast	Plantation	ORARA WEST	636
North Coast	Plantation	ORARA WEST	638
North Coast	Plantation	ORARA WEST	639
North Coast	Plantation	WILD CATTLE CREEK	66
North Coast	Plantation	WILD CATTLE CREEK	322
North Coast	Plantation	WILD CATTLE CREEK	329
North Coast	Plantation	WILD CATTLE CREEK	330
North Coast	Plantation	WILD CATTLE CREEK	531
North Coast	Plantation	WILD CATTLE CREEK	534
North Coast	Plantation	WILD CATTLE CREEK	535
North Coast	Plantation	WILD CATTLE CREEK	536
North Coast	Plantation	WILD CATTLE CREEK	551
North Coast	Plantation	WILD CATTLE CREEK	552
North Coast	Plantation	Yabbra	7235
North Coast	Plantation	Yabbra	7236
Southern	Native	BADJA	2014
Southern	Native	Bago	10
Southern	Native	Bago	19
Southern	Native	Bago	20
Southern	Native	Bago	75
Southern	Native	BENANDARAH	109
Southern	Native	BENANDARAH	114
Southern	Native	BENANDARAH	116
Southern	Native	BODALLA	3006
Southern	Native	BOLARO	242
Southern	Native	BOLARO	244
Southern	Native	BOLARO	245
Southern	Native	BOYNE	100
Southern	Native	CLYDE	206
Southern	Native	MOGO	159
Southern	Native	Nadgee	58
Southern	Native	Nadgee	59
Southern	Native	Nadgee	60
Southern	Native	Nadgee	124
Southern	Native	Nadgee	141
Southern	Native	Nadgee	142
Southern	Native	Nadgee	143

Southern	Native	Nadgee	148
Southern	Native	Nadgee	159
Southern	Native	Nullica	652
Southern	Native	Nullica	655
Southern	Native	SHALLOW CROSSING	212
Southern	Native	SOUTH BROOMAN	60
Southern	Native	TALLAGANDA	2437
Southern	Native	TALLAGANDA	2451
Southern	Native	TALLAGANDA	2455
Southern	Native	TALLAGANDA	2457
Southern	Native	Tantawangalo	2403
Southern	Native	Yambulla	423