



## COMMERCE COMMISSION

### Decision No. 588

Determination pursuant to the Commerce Act 1986 in the matter of an application for Proposal

**HANCOCK NATURAL RESOURCE GROUP INC**

and

**CARTER HOLT HARVEY LIMITED**

**The Commission:** Paula Rebstock  
Denese Bates QC  
Peter J M Taylor

**Summary of Application:** Hancock Natural Resource Group Inc seeks clearance to acquire shares and assets owned by Carter Holt Harvey Limited, relating to forestry estates located in Northland, Auckland, central North Island and Nelson.

**Determination:** Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance to the proposed acquisition.

**Date of Determination:** 27 September 2006

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## EXECUTIVE SUMMARY

1. A notice pursuant to s 66(1) of the Commerce Act 1986 (the Act) was registered on 7 July 2006. The notice sought clearance for the acquisition by Hancock Natural Resource Group Inc (Hancock, the Applicant) of shares and assets owned by Carter Holt Harvey Limited (CHH), relating to forestry estates located in Northland, Auckland, the central North Island (CNI) and Nelson.
2. Hancock is a Timber Investment Management Organisation (TIMO) which presently manages four forestry estates in the CNI; it does not currently manage any forestry estates in the Northland, Auckland or Nelson regions. As such, the Commission has primarily focussed upon the likely impact of the acquisition on the markets for:
  - the production and supply of pulplogs in the CNI, for the periods 2006-2010, 2011-2015 and 2016-2020;
  - the production and supply of unpruned sawlogs in the CNI, for the periods 2006-2010, 2011-2015 and 2016-2020; and
  - the production and supply of pruned sawlogs in the CNI, Hawke's Bay, and Auckland, for the periods 2006-2010, 2011-2015 and 2016-2020.
3. CHH's forestry asset sale is a bidding process, and the Commission understands that there are a number of other interested parties, including CRBF Limited, an investment fund advised by Global Forest Partners, [ ] and [ ]. The Commission considers that the counterfactual is that the CHH forestry assets will be acquired by a third party that does not presently have a major interest in New Zealand forestry.
4. The Commission considers that in the factual scenario, large forestry operators such as Kaingaroa Timberlands, Matariki Forests and Crown Forestry Group, would likely provide a degree of constraint on the combined entity in each of the relevant markets.
5. In addition, the Commission considers that small woodlots would also provide a degree of constraint on the combined entity in each of the relevant markets, although to a lesser extent because of their fragmented nature, variability in harvest, and in the case of the pruned sawlog markets, the inconsistency in quality.
6. The Commission considers that in the factual scenario, the combined entity will continue to face some degree of constraint from existing competitors in each of the relevant markets. Merger simulations undertaken by the Commission have produced results that are consistent with this view.
7. Given the requirement for sophisticated harvest infrastructure, and the subsequent impact on the ability to sustain projected harvest levels, the Commission considers that large competitors, such as Kaingaroa Timberlands, Matariki Forests and Crown Forestry Group, are unlikely to expand through early harvest with respect to any of the relevant markets.
8. The Commission considers that small woodlots are likely to expand through early harvest, as they do not have the same infrastructure requirements.

However, the Commission considers that expansion through early harvest is unlikely to be of a sufficient magnitude to act as a constraint on the combined entity in the factual scenario.

9. Based on current pulplog and pruned sawlog export levels, the Commission considers that it is unlikely that existing competitors would expand through diversion from export in the factual scenario.
10. However, the Commission considers that there is sufficient evidence, in the form of fluctuating volumes of exported unpruned sawlogs, to suggest that existing competitors are likely to expand, to some degree, through diversion from export in the unpruned sawlog markets.
11. Because of the excess supply of logs, and in the case of the pulplog markets, the limited number of outlets for these logs, the Commission considers that acquirers are also likely to act as a constraint, to some extent, upon the combined entity in the factual scenario.
12. The Commission considers that the scope for unilateral market power is unlikely to be enhanced in the factual scenario in the pulplog markets, because the combined entity is incentivised to continue harvesting, at least at its current harvest levels,  
[  
]. In addition, the Commission considers that the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest,  
[  
].  
Furthermore, the Commission considers that the combined entity is incentivised to continue harvesting and competing to dispose of its pulplogs in the factual scenario, due to the overall surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
13. The Commission considers that the scope for unilateral market power is unlikely to be enhanced in the factual scenario in the unpruned sawlog and pruned sawlog markets, as the necessity to continue harvesting pulplogs has a flow-on effect such that the combined entity is also incentivised to continue harvesting and competing to dispose of pruned sawlogs and unpruned sawlogs.
14. With respect to the scope for coordinated behaviour in the factual scenario, the Commission considers that the surplus of pulplogs, pruned sawlogs and unpruned sawlogs in each of the relevant markets creates an incentive for forestry operators to continue harvesting and competing to dispose of their pulplogs, pruned sawlogs and unpruned sawlogs. The large number of fringe competitors, in the form of small woodlots, in each of the relevant markets places additional limitation upon the scope for coordinated behaviour in the factual scenario.
15. The Commission is therefore satisfied that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening competition in any market.

## GLOSSARY

### Terms

CNI	Central North Island.
Forest Management Company	A business that is contracted by forest owners (including TIMOs) to carry out the day-to-day administration of the forest owner's strategic forest plan. Activities may include planting, silviculture, harvesting, transportation and sale of logs.
MDF	Medium Density Fibreboard, a type of reconstituted board product.
MDF Plant	A plant which processes industrial-grade unpruned sawlogs into MDF.
Pruned Sawlog	Used in the production of furniture, mouldings and other appearance grade timber.
Pulplog	Pulplog is sourced from the top section of the tree, including branches, and is used in the production of pulp and paper.
Pulpmill	A plant which processes pulplogs into pulp and paper products.
Sawmill	A plant which processes unpruned sawlogs and pruned sawlogs into timber.
SNI	Southern North Island.
Stumpage Contractor	A business or individual that is contracted by a forest owner or forest management company to assist with activities associated with harvesting the forest. These activities may include cutting, transportation and log sales.
TIMO	Timber Investment Management Organisation, an organisation that develops and manages international timberland portfolios on behalf of investment groups.
Unpruned Sawlog	Used for packaging (industrial grades) and construction (structural grades).

### Parties

CHH	Carter Holt Harvey Limited; land/forest owner, sawmill, pulpmill
Claymark	Claymark Industries Limited; sawmill
CNIFP	Central North Island Forestry Partnership; land/forest owner
Crown Forestry	Crown Forestry Group; land/forest owner

FCF	Fletcher Challenge Forests; forest owner, sawmill
GMO RR	Grantham Mayo and Otterloo Renewable Resources; TIMO, forest owner
GFP	Global Forest Partners LP; TIMO, forest owner
Hancock	Hancock Natural Resource Group Inc; TIMO, forest owner
KT	Kaingaroa Timberlands; TIMO, forest owner
Lakesawn	Lakesawn Lumber Limited; sawmill
LRFT	Lake Rotoaira Forest Trust; land/forest owner
LTFT	Lake Taupo Forest Trust; land/forest owner
MAF	Ministry of Agriculture and Forestry; government
Matariki	Matariki Forests; forest owner
Norske Skog	Norske Skog Tasman Limited; pulpmill
NZFM	New Zealand Forest Managers Limited; harvest manager
Pan Pac	Pan Pac Forest Products Limited; land/forest owner, sawmill, pulpmill
Pukepine	Pukepine Sawmills Limited; sawmill
PF Olsen	PF Olsen and Company Limited; forest manager
Red Stag	Red Stag Limited; sawmill
SCA Hygiene	SCA Hygiene Australasia Limited; pulpmill
Tachikawa	Tachikawa Forest Products (NZ) Limited; sawmill
TDC	TDC Sawmill Limited; sawmill
Tenon	Tenon Limited; sawmill
Winstone	Winstone Pulp International Limited; land/forest owner, sawmill, pulpmill

## THE PROPOSAL

1. A notice pursuant to s 66 (1) of the Commerce Act 1986 (the Act) was registered on 10 August 2006. The notice sought clearance for the acquisition by Hancock Natural Resource Group, Inc (Hancock) or a nominee<sup>1</sup> of:
  - all of the shares in four Carter Holt Harvey Limited (CHH) subsidiaries, namely, NZ Forest Products Limited, AHI Group Limited, Carter Holt Harvey Equities (No 12) Limited and Carter Holt Harvey Forest Holdings Limited; and
  - forestry assets (including freehold property, non-freehold land interests, the standing timber on that land, plant and equipment, business contracts, licenses and consents) not owned by the above four CHH subsidiaries, but owned by other companies in the CHH group of companies,
 relating to forest estates located in Northland and Auckland, the CNI and Nelson.

## PROCEDURE

2. Section 66(3) of the Act requires the Commission either to clear or to decline to clear the acquisition referred to in a s 66(1) notice within 10 working days, unless the Commission and the person who gave notice agree to a longer period. An extension of time was agreed between the Commission and the Applicant. Accordingly, a decision on the application was required by 28 September 2006.
3. The Applicant sought confidentiality for specific aspects of the application. A confidentiality order was made in respect of the information for up to 20 working days from the Commission's determination notice. When that order expires, the provisions of the Official Information Act 1982 will apply.
4. The Commission's approach to analysing the proposed acquisition is based on principles set out in the Commission's Mergers and Acquisitions Guidelines.<sup>2</sup>

## STATUTORY FRAMEWORK

5. Under s 66 of the Act, the Commission is required to consider whether the proposal will, or would be likely to have the effect of substantially lessening competition in the market. If the Commission is satisfied that the proposal is unlikely to substantially lessen competition then it is required to grant clearance to the application. Conversely if the Commission is not satisfied it must decline. The standard of proof that the Commission must apply in making its determination is the civil standard of the balance of probabilities.<sup>3</sup>
6. The substantial lessening of competition test was considered in *Air New Zealand & Qantas v Commerce Commission*, where the Court held;

We accept that an absence of market power would suggest there had been no substantial lessening of competition in a market but do not see this as a reason to forsake an analysis of the counterfactual as well as the factual. A comparative judgement is implied by the statutory test which now focuses on a possible change along the spectrum of market power rather than on whether or not a particular position on that spectrum, i.e. dominance has been attained. We consider, therefore, that a study of likely outcomes, with

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<sup>1</sup> The nominee will be an investor-client of Hancock, with the forests managed either by Hancock or by a party interconnected with Hancock.

<sup>2</sup> Commerce Commission, *Mergers and Acquisitions Guidelines*, January 2004.

<sup>3</sup> *Foodstuffs (Wellington) Cooperative Society Limited v Commerce Commission* (1992) 4 TCLR 713-722.



and without the proposed Alliance, provides a more rigorous framework for the comparative analysis required and is likely to lead to a more informed assessment of competitive conditions than would be permitted if the inquiry were limited to the existence or otherwise of market power in the factual.<sup>4</sup>

7. In determining whether there is a change along the spectrum which is significant the Commission must identify a real lessening of competition that is not minimal<sup>5</sup>. Competition must be lessened in a considerable and sustainable way. For the purposes of its analysis the Commission is of the view that a lessening of competition and creation, enhancement or facilitation of the exercise of market power may be taken as being equivalent.
8. When the impact of market power is expected to be predominantly upon price, for the lessening, or likely lessening, of competition to be regarded as substantial, the anticipated price increase relative to what would otherwise have occurred in the market has to be both material, and ordinarily able to be sustained for a period of at least two years or such other time frame as may be appropriate in any give case.
9. Similarly, when the impact of market power is felt in terms of the non-price dimensions of competition such as reduced services, quality or innovation, for there to be a substantial lessening, or likely substantial lessening of competition, these also have to be both material and ordinarily sustainable for at least two years or such other time frame as may be appropriate.

#### **ANALYTICAL FRAMEWORK**

10. The Commission applies a consistent analytical framework to all its clearance decisions. The first step the Commission takes is to determine the relevant market or markets. As acquisitions considered under s 66 are prospective, the Commission uses a forward-looking type of analysis to assess whether a lessening of competition is likely in the defined market(s). Hence, an important subsequent step is to establish the appropriate hypothetical future with and without scenarios, defined as the situations expected:
  - with the acquisition in question (the factual); and
  - in the absence of the acquisition (the counterfactual).
11. The impact of the acquisition on competition is then viewed as the prospective difference in the extent of competition in the market between those two scenarios. The Commission analyses the extent of competition in each relevant market for both the factual and the counterfactual, in terms of:
  - existing competition;
  - potential competition; and
  - other competition factors, such as the countervailing market power of buyers or supplies.

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<sup>4</sup> *Air New Zealand & Qantas Airways Ltd v Commerce Commission*, unreported HC Auckland, CIV 2003 404 6590, Hansen J and K M Vautier, Para 42.

<sup>5</sup> *Fisher & Paykel Limited v Commerce Commission* (1996) 2 NZLR 731, 758 and also *Port Nelson Limited v Commerce Commission* (1996) 3 NZLR 554.

## **THE PARTIES**

### **Hancock**

12. Hancock is a US-based TIMO. In New Zealand, Hancock manages the production and supply of pruned sawlogs, unpruned sawlogs and pulplogs, mostly in the CNI.
13. Its current CNI forestry operations relate to four forests:
  - Tiaki, which is managed by Hancock on behalf of the Tiaki Plantations Company. The forestry interest comprises approximately 35,000 ha of forest located near Tarawera, with smaller forests located between Napier and Taupo.
  - TEAL3, which is managed by Hancock on behalf of the NZ Super Fund. The forestry interest is a 5,600 ha portion of the Tahorakuri forest, located north-east of Taupo.
  - OTPP, which is managed by Hancock's subsidiary Prudential Timber Investments, on behalf of Ontario Teachers' Pension Plan (OTPP). The forestry interest comprises 3,800 ha of small holdings located north of Kawerau, between Napier and Taupo, and between Rotorua and Tauranga.
  - Viking, which is also managed by Hancock's subsidiary Prudential Timber Investments, on behalf of Viking Global Timber Fund LLC, a US based investment fund. The forestry interest comprises 48,100 ha of small holdings located inland Bay of Plenty, east and west of Lake Taupo; within the Tohorakuri forest north-east of Taupo, and between Rotorua and Tauranga.

### **CHH**

14. Rank Group Investments Limited purchased CHH in March 2006. CHH is a wood fibre products company and carries on business activities in forests, wood products, pulp and paper, packaging and building supplies. CHH is Australasia's leading forest products company and one of the largest forest product companies in the Southern Hemisphere.
15. Its current CNI forestry operations relate to two main forests, Kinleith, which comprises 114,000 ha, and Kawerau, which comprises 9,000 ha.

## **OTHER PARTIES**

### **KT**

16. KT is a TIMO that is a subsidiary of the non-profit Harvard Management Company, part of the endowment fund of Harvard University. KT manages 180,000 ha of forest in the CNI, which was purchased from FCF in 2003.

### **Matariki**

17. Matariki is a joint venture between Rayonier Inc (Rayonier), the Rosenberg Real Estate Equity Fund (RREEF), and Australian Mutual Provident (AMP). Rayonier is a US-based TIMO that manages the 36,000 ha of forest estate in the CNI, which was recently acquired from CHH by Matariki.

### **Crown Forestry**

18. Crown Forestry manages the Crown's interest in a number of commercial forests and forestry-related leases. The Crown has 25 forests geographically spread throughout New Zealand's North Island, of which 16 are forests planted on land leased from Maori landowners.
19. Approximately two-thirds of the Crown's 39,200 ha of forests in New Zealand are located in the CNI region.

### **Winstone**

20. Winstone is a vertically integrated forestry company based on the southern fringe of the CNI region, near Ohakune. It has 16,500 ha of forest in the Waimarino and Karioi, as well as a pulpmill and a sawmill. Its milling operations manufacture products destined for both local and overseas markets.

### **Pan Pac**

21. Pan Pac is also a vertically integrated forestry company. Its 32,500 ha of forest comprises of its freehold ownership of the Tangoio Forest, as well as Crown Forestry licences for four Hawke's Bay ex-state forests (Esk, Mohaka, Gwavas and Kaweka). It also operates a sawmill and a pulpmill in Hawke's Bay.

### **PF Olsen**

22. PF Olsen is a forestry management company, which administers the day-to-day operational forestry activities of 130,000 ha of plantation forest for individual and corporate clients throughout New Zealand.
23. PF Olsen manages approximately [ ] of small woodlots in the CNI region; its two largest clients are the [ ], but most of PF Olsen's approximately [ ] customers<sup>6</sup> are farmers and land trusts that on average hold [ ] ha of forest each.

### **NZFM**

24. NZFM is also a forestry management company. It manages approximately [ ] ha of forestry estate in the CNI region. NZFM's largest clients are the Lake Taupo Forest Trust (LTFT) and Lake Rotoaira Forest Trust (LRFT).

## **INDUSTRY BACKGROUND**

### **CNI Forestry Region**

25. The North Island is divided into seven forestry regions<sup>7</sup> – Northland, Auckland, CNI, East Coast, Hawke's Bay and SNI. The CNI wood supply region is New Zealand's largest wood-producing region. It includes the Bay of Plenty region, the southern half of the Waikato region, and the northern part of the Manawatu-Wanganui region<sup>8</sup>.
26. The CNI is dominated by a flat volcanic plateau which is ideal for forest growing, harvesting and log transport. Planted production forests are extensive on the plateau near Tokoroa, Kawerau, Kaingaroa and the eastern side of Lake

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<sup>6</sup> PF Olsen is also contracted to harvest for Hancock in its OTHP and Viking forests.

<sup>7</sup> MAF NEFD National and Regional Wood Supply Forecasts 2000, p 19.

<sup>8</sup> MAF NEFD National and Regional Wood Supply Forecasts 2000, p 19.

Taupo. Smaller forests and woodlots are situated throughout the region, but are more common in the central and eastern regions<sup>9</sup>.

### Log Production

27. The quality of logs from plantation grown trees is influenced by several factors: generic selection, silvaculture practice, site selection and rotation age. Log quality is generally a function of size (diameter and length), and shape (straightness, roundness and taper). Branch-related features such as size and distribution, and improvements achieved by pruning are also important features.
28. Wood basic density is also an important indicator of wood quality. This is a measure of the mass of dry wood substance per unit volume of green timber and is an important indicator of wood strength. Within New Zealand, the Northland and Auckland regions produce high-density wood, the CNI produces medium density wood, and regions further south produce lower density wood<sup>10</sup>.
29. If trees are pruned, the core of the wood containing defects can be restricted to a relatively small cylinder in the butt log<sup>11</sup>. Thinning will promote rapid growth of clearwood outside the knotty core. In this situation, clear timber or veneer is produced instead of grades containing knots. Pruning is normally conducted in years five to ten of the tree's growth; however, this is also dependent on the forest location.
30. The outerwood of a radiata pine tree is referred to as mature wood. It is mainly sapwood, has a higher density, fewer knots and narrower growth rings. It is used to produce high quality structural timber, for clear lengths used in the manufacture of furniture and decorative boards. The corewood or juvenile wood is mainly heartwood, is of lower density, and is less stable than the outerwood. It is used to produce industrial packaging, low strength structural timber, and in the manufacture of reconstituted products such as MDF and particle board<sup>12</sup>.
31. Log quality is a more important characteristic for the solid wood processing industry than it is for reconstituted wood industries. This is because the economics of log conversion in solid wood processing is dependent upon log size and shape. The grade of timber produced is a function of the defects present.

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<sup>9</sup> MAF NEFD National and Regional Wood Supply Forecasts 2000, p 19.

<sup>10</sup> [http://www.insights.co.nz/products\\_processes\\_tc.asp](http://www.insights.co.nz/products_processes_tc.asp)

<sup>11</sup> The first log produced from the tree.

<sup>12</sup> New Zealand Pine Remanufacturers Association, *New Zealand Pine User Guide* (Neilson Scott Limited, 1996) p 10.

32. The specifications for domestic log grades are outlined below in Table 1.

**Table 1: Domestic Log Grade Specifications**

Log Grade	Log Type	Small end Diameter (mm)	Maximum Knot (mm)
P1	Pruned	400+	0
P2	Pruned	300-399	0
S1	Unpruned	400+	60
S2	Unpruned	300-399	60
S3	Pruned or unpruned	200-299	60
L1	Unpruned	400+	140
L2	Unpruned	300-399	140
L3	Unpruned	200-299	140
Pulp	Unpruned	100	N/a

Source: MAF

33. Pruned logs are generally distinguished on the basis of external characteristics. Internal quality characteristics such as the defect core are not included in the specifications. The quality and potential value of pruned logs can vary greatly, depending on the silvaculture regime<sup>13</sup>.

### Log Supply

34. The log supply industry is characterised by several different strategic groups of competitors. The first group involves large vertically integrated, publicly listed forestry companies, which are involved in forest ownership and log production, log trading, and downstream wood processing facilities. CHH is the only remaining business that falls within this group since the sale of the FCF forests in 2003.
35. The next group is also characterised by a vertically integrated structure. However, the scale of business operations is considerably smaller than that of the first group, and these businesses are generally net purchasers of logs. This group includes of Winstone in the CNI and Pan Pac in Hawke's Bay.
36. The next strategic group is characterised by forest ownership or management on a large scale, with no downstream processing activities. This group is a mixture of smaller companies, as well as large foreign owned TIMOs. The main function of these organisations is the overall strategic management of forest ownership and log production. TIMOs in this group include Hancock, KT and Matariki. Also included in this group are harvest managers, such as PF Olsen and NZFM.
37. The remaining forests are fragmented, smaller scale woodlots. Owners of these forests include farmers and other individuals that have small blocks of plantation forest. More sizable estates in this category are owned by local government and Maori land trusts. Harvest managers are frequently involved in the operational management of these woodlots.

<sup>13</sup> Ibid 5-19.

## Sawmills

38. In the CNI region, the greater proportion of processing facilities is concentrated within close proximity of Rotorua.

### *Pulplog Processors*

39. There are four large processors of pulplogs in the CNI region: CHH Kawerau, Norske Skog, SCA Hygiene and Winstone.
40. SCA Hygiene manufactures tissue products at its Kawerau processing plant, using the pulp end-product manufactured by its own pulpmill at Kawerau. SCA Hygiene advised the Commission that it will [ ]. SCA Hygiene currently processes [ ] m<sup>3</sup> of wood fibre per year, which consists of [ ] % eucalyptus woodchip and [ ] % of radiata woodchip.
41. Norske Skog acquired the Tasman newsprint mill from Tenon in 2001. It processes [ ] m<sup>3</sup> of wood fibre per year, which consists of [ ] % woodchip, and [ ] % pulplogs.
42. Winstone's pulpmill consumes [ ] m<sup>3</sup> of pulplogs and woodchip per year. It sources [ ] of its pulplog and woodchip from its own forests.

### *Unpruned Sawlog Processors*

43. A significant proportion of sawmills in the CNI region process unpruned sawlogs. Larger sawmills include Lakesawn, Tachikawa, Red Stag, Winstone and CHH.
44. Tachikawa is a joint venture between Sojitzu and Tachikawa Forest Products Japan; it processes approximately [ ] m<sup>3</sup> of industrial-grade unpruned sawlogs per year.
45. Lakesawn is a division of Pederson Holdings Limited. Lakesawn manufactures industrial-grade unpruned sawlogs into framing and packaging products. [ ] approximately [ ] m<sup>3</sup> per year.
46. Red Stag processes [ ] m<sup>3</sup> of industrial-grade unpruned sawlogs per year. [ ].
47. Winstone's Tangiwai sawmill processes approximately [ ] m<sup>3</sup> of unpruned sawlogs per year. [ ] percent of Winstone's unpruned sawlog requirements are sourced from its own forests at Waimarino and Karioi, and the remaining [ ] % is sourced from other forests located in the CNI and SNI regions.
48. CHH has a number of sawmills in the CNI that process unpruned sawlogs, the largest of which are CHH Kawerau, CHH Putaruru, and CHH Kopu. The combined input to the CHH unpruned sawlog mills is over [ ] m<sup>3</sup> per year.
49. Pukepine is based in Te Puke, and currently processes [ ] m<sup>3</sup> of unpruned sawlogs per year. It was previously processing [ ] m<sup>3</sup> of unpruned sawlogs per year; however Pukepine [ ].
50. Other sawmills that source unpruned sawlogs in the CNI region include McAlpine's, Tregoweth and Tongariro Timber.

*Pruned Sawlog Processors*

51. Tenon and Claymark are the largest purchasers of pruned sawlogs in the CNI region.
52. Smaller pruned sawlog sawmills include Mamaku, Thames Timber, Kiwi Lumber, Pacific Pine Industries, Rotorua Sawmill and Waitete Sawmill.

**PREVIOUS COMMISSION DECISIONS**

53. The Commission previously considered CNI log markets in Decisions 426 and 468.
54. In Decision 426, *Carter Holt Harvey Limited and Central North Island Forestry Partnership, July 2001*, the Commission considered the following markets related to logs:
  - the production and supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay;
  - the production and supply of unpruned sawlogs in the CNI; and
  - the production and supply of pulplogs in the CNI.
55. Decision 426 was assessed under the dominance test. The Commission considered that there was sufficient existing competition within the unpruned sawlog and pulplog markets to constrain the combined entity in the factual scenario. In addition, the Commission was of the view that in the pulplog markets, the combined entity would also face additional constraint in the form of countervailing power from large-scale pulplog purchasers.
56. The Commission also accepted an undertaking from CHH to divest the right to harvest and own volumes of pruned sawlog each year from the 2002-2005<sup>14</sup> time period.
57. The Commission concluded that the proposed acquisition would not result, or be likely to result, in any person acquiring or strengthening a dominant position in any market.
58. In Decision 468, *Fletcher Challenge Forests Limited and Central North Island Forestry Partnership, August 2002*, the Commission considered the following markets related to logs:
  - the production and supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay for the periods 2003-2005, 2006-2010 and 2011-2015;
  - the production and supply of unpruned sawlogs in the CNI, for the periods 2003-2005, 2006-2010 and 2011-2015; and
  - the production and supply of pulplogs in the CNI, for the periods 2003-2005, 2006-2010 and 2011-2015.
59. The Commission considered that the merged entity would be constrained by existing competition in the pruned sawlog, unpruned sawlog and pulplog markets. In addition, the Commission considered that the merged entity would also be constrained by the countervailing power of large scale purchasers of pulplogs in the pulplog markets.

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<sup>14</sup> In the year ending 1 April 2002 – 220,000m<sup>3</sup> of pruned sawlogs, in the year ending 1 April 2003 – 90,000m<sup>3</sup> of pruned sawlogs, in the year ending 1 April 2004 – 60,000 m<sup>3</sup> of pruned sawlogs, and in the year ending 1 April 2005 – 90,000 m<sup>3</sup> of pruned sawlogs.

60. The Commission concluded that the acquisition would not have, or be likely to have, the effect of substantially lessening competition in any market.

### **MARKET DEFINITION**

61. The Act defines a market as:
- “... a market in New Zealand for goods or services as well as other goods or services that as a matter of fact and commercial common sense, are substitutable for them.”<sup>15</sup>
62. For the purpose of competition analysis, the internationally accepted approach is to assume the relevant market is the smallest space within which a hypothetical profit maximising sole supplier of a good or service, not constrained by the threat of entry would be able to impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the SSNIP test). The smallest space in which such market power may be exercised is defined in terms of the dimensions of the market discussed below. The Commission generally considers a SSNIP to involve a five to ten percent increases in price that is sustained for a period of one year.
63. The Commission seeks to define relevant markets in a way which best assists the analysis of the competitive impact of the acquisition under consideration. In this instance, the common activity of the two parties is the production and supply of logs.
64. The Applicant submitted that the relevant markets are similar to those defined in Decisions 426 and 468:
- the production and supply of unpruned sawlogs in the CNI, for the periods 2006–2010, 2011–2015 and 2016–2020;
  - the production and supply of pruned sawlogs in the CNI, Auckland and Hawke’s Bay, for the periods 2006–2010, 2011–2015 and 2016–2020; and
  - the production and supply of pulplogs in the CNI, for the periods 2006–2010, 2011–2015 and 2016–2020.

### **Product Market**

65. The greater the extent to which one good or service is substitutable for another, on either the demand-side or supply-side, the greater the likelihood that they are bought and supplied in the same market.
66. Close substitute products on the demand-side are those between which at least a significant proportion of buyers would switch when given an incentive to do so by a small change in their relative prices.
67. Close substitute products on the supply-side are those between which suppliers can easily shift production, using largely unchanged production facilities and little or no additional investment in sunk costs, when they are given a profit incentive to do so by a small change to their relative prices.
68. The Applicant submitted that the Commission’s previous approach to the product dimension of logs continues to be appropriate, and that accordingly there are distinct product markets for unpruned sawlogs, pruned sawlogs, and pulplogs.

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<sup>15</sup> S 3(1) of the Commerce Act 1986.



69. The production of logs has a number of features which are relevant when considering the appropriate product market dimension. These include the species of tree, and the range of grades of logs.
70. Current plantation forests in New Zealand are dominated by radiata pine (which accounts for 89% of area planted nationally, and 91% in the CNI). The other species of note is Douglas fir (6% nationally, 4% CNI), with the remainder a mix of eucalyptus and other hardwoods. In Decision 426, the Commission noted that the ownership spread pertaining to the non-radiata species is not materially different from that of radiata pine, and concluded that it was not necessary to distinguish between the species when assessing the likely impact upon competition of the proposed acquisition.
71. In its previous decisions, the Commission recognised that while the supply of different grades of logs is linked, pulplogs and sawlogs have distinct uses. Furthermore, sawlogs can be distinguished between pruned and unpruned logs, again on the basis of different demand characteristics.
72. On the demand-side, there would appear to be little substitution between these broad classes of logs. Pulplogs tend to be younger, smaller, and less dense, and therefore not suitable for the production of sawn timber. Red Stag advised the Commission that the smallest sawlog that it can process has a small-end diameter of 160 mm. The small-end diameter of pulplogs is 100 mm<sup>16</sup>. Furthermore, unpruned sawlogs are not considered to be close substitutes for pruned sawlogs. The presence of knots in unpruned sawlogs renders them unsuitable for the appearance-based products that are usually manufactured from pruned sawlogs.
73. There may be some supply-side substitution possible at the margin, although this does not appear to be a significant factor. The Commission understands that a forest owner can increase the proportion of unpruned logs through ageing the tree, which can result in younger pulpwood maturing into lower grade industrial sawlogs<sup>17</sup>.
74. Within these broad classes of logs, there are additional grades of logs; however, parties spoken to by the Commission generally agreed that it is not necessary to further segregate the pulplog, unpruned sawlog and pruned sawlog product markets.
75. For the purposes of this determination, the Commission considers that there are separate product dimensions for pulplogs, unpruned sawlogs, and pruned sawlogs.

### **Conclusion on Product Markets**

76. The Commission concludes that for the purpose of assessing the competition implication of the proposed acquisition, the appropriate product markets are those which were defined in Decisions 426 and 468:
  - the market for the production and supply of unpruned sawlogs;
  - the market for the production and supply of pruned sawlogs; and
  - the market for the production and supply of pulplogs.

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<sup>16</sup> MAF website, domestic log grades.

<sup>17</sup> The ageing of trees implies relatively long-run substitution, whereas the focus of the Commission is typically within a two-year timeframe.

### Functional Markets

77. There are a number of functional levels that relate to the forestry sector, including the production and supply of various grades of raw logs, the processing of those logs (for example, into timber or pulp and paper), and the distribution of the processed product (for example, through building supply chains)<sup>18</sup>.
78. The current application involves aggregation at the forestry level. The Commission concludes, for the purposes of the present application, that the relevant functional market is the production and supply of unpruned sawlogs, pruned sawlogs and pulplogs.

### Geographic Markets

79. The Commission defines the geographic dimension of a market to include all of the relevant, spatially dispersed sources of supply to which buyers would turn should the prices of local sources of supply be raised.
80. In Decisions 426 and 468, the Commission defined the geographic dimensions as the CNI for pulplogs and unpruned sawlogs, and the CNI, Hawke's Bay, and Auckland for the higher value pruned sawlogs. The Commission has assessed whether the dimensions of these markets continue to be appropriate for the purposes of the current application, particularly given the increase in fuel costs in recent years.
81. The Applicant currently manages a number of forestry estates which are, for the most part, located within an area bounded by Lake Taupo in the south, up to Whakatane, and across to Tauranga. There is a significant amount of processing capacity also located within this area. CHH, the subject of the acquisition, holds forests on the western boundary and to the southwest of this area, as well as in the eastern Bay of Plenty. The forests that are relevant to the current application are therefore located within the CNI and Bay of Plenty region. This is the area in which a SSNIP test will be applied to log prices.
82. In assessing the relevant geographic market for the supply of each log type, the Commission has considered the inland transport cost of shifting logs, relative to log value.
83. There are a large number of different grades of logs, with log values depending on factors such as diameter, knot size, and 'sweep'<sup>19</sup>. The domestic log grades and the associated prices as of June 2006 are summarized in Table 2 below.

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<sup>18</sup> There may be various levels of (vertical) integration between these functional levels, as is the case where an entity owns pulpmill as well as a forestry estate. The proposed acquisition involves vertical disintegration, with CHH selling its forestry estate.

<sup>19</sup> Sweep refers to the straightness of the log.

**Table 2: Log grades and prices**

Log grade	Domestic price (NZ\$/m <sup>3</sup> ) <sup>20</sup>
Pruned (P1)	\$115-\$146
Unpruned (S1, S2, L1, L2)	\$60-86
Pulp	\$41

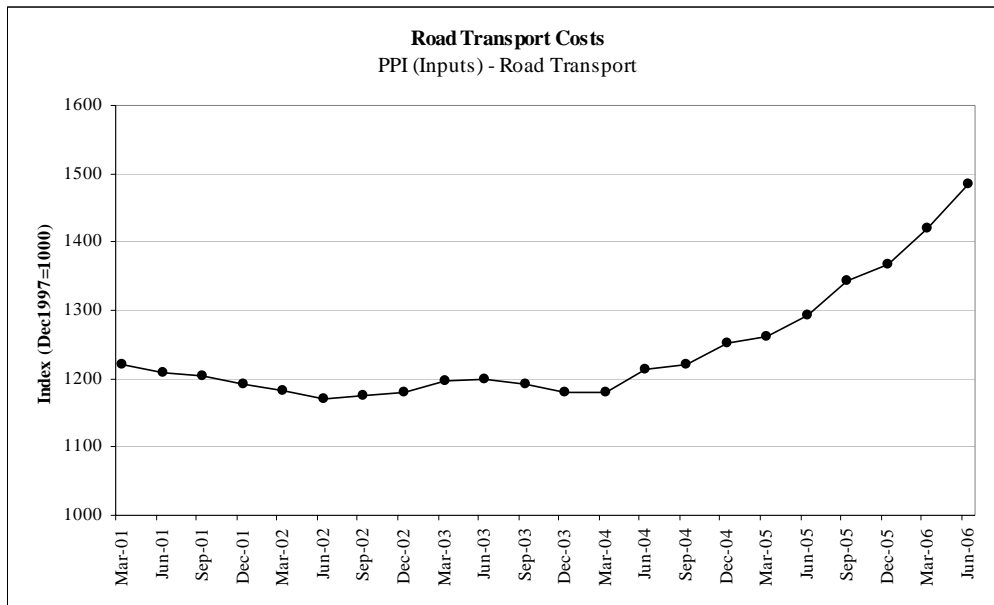
Source: MAF.

84. For the purposes of applying a ssnip to each of the pruned and unpruned log prices, the mid-point of the respective ranges has been taken. A ssnip of 10% applied to a pruned price of \$130/m<sup>3</sup>, results in a price increase of \$13/m<sup>3</sup>. Similarly, for unpruned logs, a ssnip would result in an increase of approximately \$7/m<sup>3</sup>, while for pulplogs, the price increase would be approximately \$4/m<sup>3</sup>.
85. Faced with an increase in log prices of the above magnitude, the ability of a customer purchasing logs to switch to an alternative source of supply from another region will depend on the additional transport costs of shipping in logs from further away.
86. A number of parties advised the Commission that log cartage costs have increased over the last few years. Tenon, which sources pruned logs from Pan Pac's forests in Hawke's Bay, said that the cost of transporting logs from Hawke's Bay to Taupo<sup>21</sup> had increased from \$[ ]/m<sup>3</sup> to \$[ ]/m<sup>3</sup> (\$[ ]/m<sup>3</sup> per km), over the past five years. Tenon advised the Commission that it no longer sources logs from the East Coast, because it is now too expensive.
87. Crown Forestry indicated that transport rates are sensitive to fuel costs. The effect of increased fuel costs on the road transport sector can be seen by considering movements in the Producer Price Index (PPI). The PPI Inputs index measures changes in the cost of production<sup>22</sup> in different sectors. The PPI Inputs index for the road transport sector is shown in Figure 1.

<sup>20</sup> Prices are 12-quarter averages, in \$NZ, delivered at mill. It is assumed that 1 tonne = 1 m<sup>3</sup>.

<sup>21</sup> The distance between Hawke's Bay and Taupo is approximately 150 km.

<sup>22</sup> Excluding labour and capital costs.

**Figure 1: Road Transport Costs**

Source: Crown Forestry

88. Figure 1 shows that over the last two years, the cost of road transport inputs has increased by approximately 22%. This is likely to be due to increases in fuel costs, although the inputs index would also include any other changes in the components that make up transport input costs. The corresponding PPI Outputs index, which measures the change in prices received by road transport operators (i.e., the transport rates paid by transport operator customers), increased by just under 12% over the same period. This indicates that while road transport operators have been absorbing some of the increase in transport costs, some of those increases have also been passed on to customers.
89. Crown Forestry provided the Commission with considerable detail on trucking rates relating to its forestry operations in the North Island. The longest distance that Crown Forestry logs are typically transported is from Lake Taupo to Mt Maunganui<sup>23</sup> at a cost of \$[ ]/m<sup>3</sup> per km. An example of a shorter distance that Crown Forestry would transport its logs is from Lake Rotoaira<sup>24</sup> to Tenon's Taupo sawmill<sup>25</sup> at a cost of \$[ ]/m<sup>3</sup> per km.
90. Crown Forestry advised the Commission that the ability for transport operators to back-load has a significant impact on trucking costs, and that there is greater opportunity to back-load in the CNI than in other regions<sup>26</sup>.
91. Pan Pac concurred, advising the Commission that its transport costs are significantly reduced through back-loading. For example, the cost of transporting pruned logs from Pan Pac's Hawke's Bay forest to a customer in Rotorua<sup>27</sup> can be reduced by up to [ ] by back-loading unpruned sawlogs on the return journey.

<sup>23</sup> The distance between Mt Maunganui and Lake Taupo is approximately 230 km.

<sup>24</sup> Lake Rotoaira lies south of Lake Taupo.

<sup>25</sup> The distance between Lake Rotoaira and Tenon's Taupo sawmill is approximately 50 km.

<sup>26</sup> Back-loading is where logs are transported on both legs of the journey.

<sup>27</sup> The distance between Pan Pac's Hawke's Bay forest and Rotorua is approximately 220 km.

92. The cost per kilometre of transportation tends to decline as the distance carried increases<sup>28</sup>. One factor that could explain this is that the costs associated with loading and unloading trucks at either end of the journey are relatively high, with such costs being independent of the journey length.
93. The area in which aggregation would occur, as a result of the proposed acquisition, lies predominantly within an 80 km radius of Rotorua. In the event that a ssnip was applied in respect of logs produced within this area, processors may be able to respond by sourcing logs from more distant suppliers, as long as the additional transport costs were less than the price increase.
94. Based on a cost of \$0.12/m<sup>3</sup> per km<sup>29</sup>, purchasers faced with a SSNIP could source pulplogs from an additional 35 km, unpruned logs from an additional 60 km, and pruned logs from an additional 110 km beyond the area of aggregation. These distances indicate that if a ssnip is imposed, it would be economic for a processor located in proximity to Rotorua to transport pulplogs over a total distance of up to 115 km, unpruned sawlogs up to 140 km, and pruned sawlogs up to 190 km.
95. These distances are consistent with information provided by industry participants regarding existing wood flows throughout the CNI region. Pan Pac advised the Commission that it transports pruned sawlogs up to 200 km, while Mamaku Sawmill advised that it purchases pruned sawlogs from as far away as Opotiki<sup>30</sup>. Crown Forestry said that it supplies pruned sawlogs to sawmills located as far north as Thames, and that logs from its Waiuku forest<sup>31</sup> are sold to sawmills located in both Auckland and the CNI region.
96. In Decision 468, the Commission considered that the distance between the East Coast region to the CNI region meant that logs sent from the East Coast would incur significant transport costs; it would only be viable to transport the higher-value sawlogs this distance.
97. Industry participants advised the Commission that since Earnslaw One's recent sawmill acquisition in the East Coast region, the volume of wood flowing from the East Coast into the CNI had dried up.
98. PF Olsen advised the Commission that in exceptional circumstances, pulplogs and woodchips sometimes flow into the CNI from Hawke's Bay and Northland. All industry participants that the Commission spoke to advised the Commission that this tends to be the exception rather than the rule.
99. The above analysis is summarised in Figure 2 below. The smaller shaded circle represents areas located within 150 km of Rotorua, which is used as the centre of the majority of processing capacity in the region. This circle approximates the area within which it would appear to be feasible to transport pulplogs and unpruned sawlogs, in response to a ssnip applied to pulplogs and unpruned sawlogs. Although processing mills located on the boundary of this circle may

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<sup>28</sup> See Decision 426, paragraph 63.

<sup>29</sup> Based on the rates and distances supplied by industry participants, the Commission is of the view that the cost per kilometre of transporting logs ranges from \$0.08/ m<sup>3</sup> per km (220 km, with back-loading) to \$0.12/ m<sup>3</sup> per km (150 km).

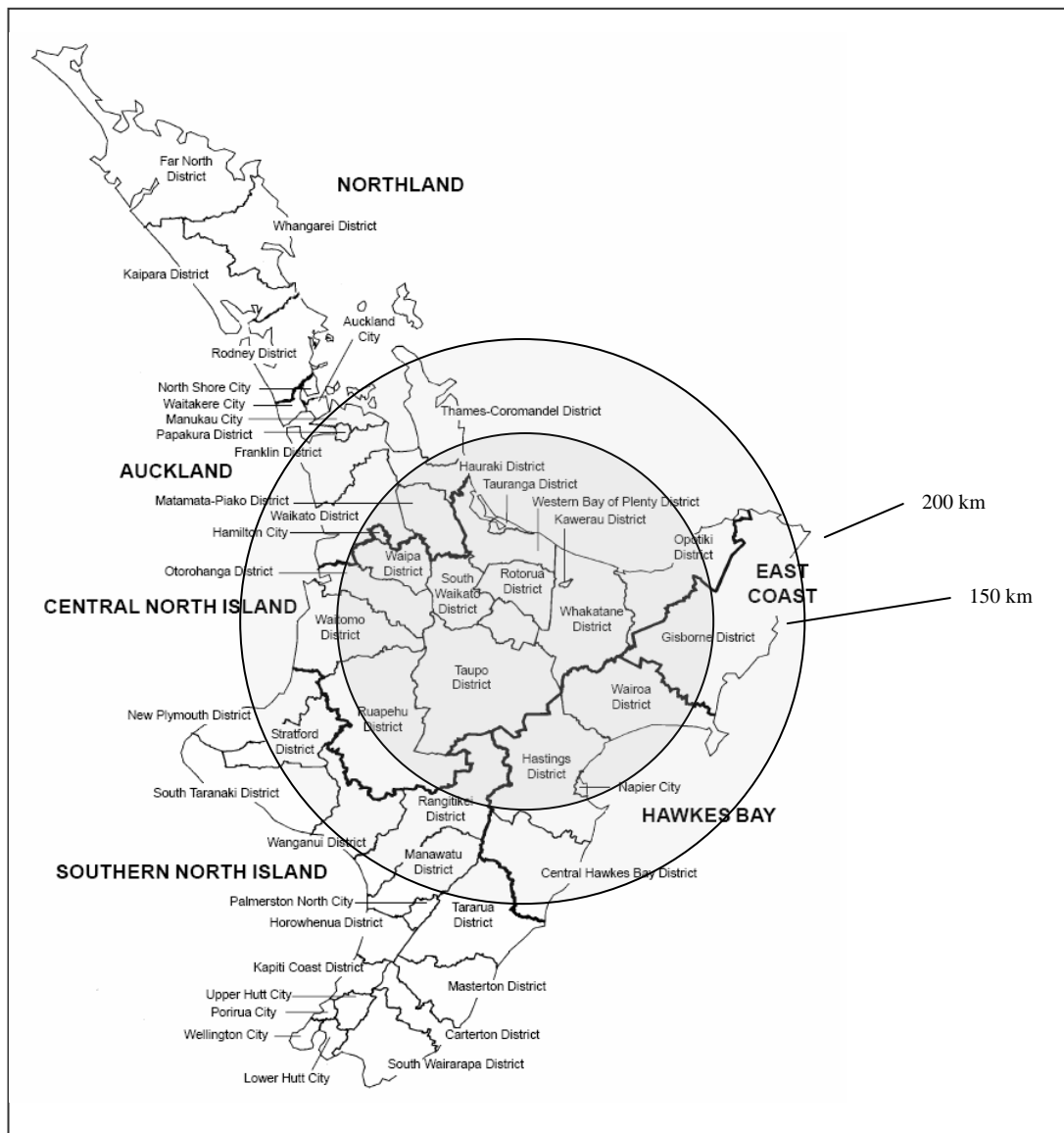
<sup>30</sup> A distance of 170 km.

<sup>31</sup> Crown Forestry's Waiuku forest is located south-west of Pukekohe in the Auckland wood supply region. The distance from Waiuku to Rotorua is approximately 200 km.

be able to source logs from other regions<sup>32</sup>, the concentration of processing capacity is within the Rotorua region. This indicates that the CNI forestry region, which is primarily located within the districts of Rotorua, South Waikato, Taupo, Whakatane, and Kawerau, is the appropriate economic market for pulplogs and unpruned sawlogs.

100. The second circle depicts a distance of 200 km from Rotorua, as an approximation of the area from which the higher value pruned sawlogs can be sourced. This extends to include the CNI forestry region, as well as much of the Hawke's Bay forests, and the southern Auckland and Coromandel forests.
101. In both cases, the main East Coast forestry region does not lie within the relevant market boundaries.

**Figure 2: Log Supply Regions**



Source: MAF

102. Despite the increase in fuel costs, and the resulting increase in road transport costs, the Commission considers that for the purpose of assessing the current

<sup>32</sup> For example, Winstone, which operates a pulpmill and sawmill near Ohakune, sources logs from as far south as Masterton.

application, the geographic markets previously defined in Decisions 426 and 468 remain valid.

#### *Conclusion on Geographic Markets*

103. The Commission considers that for the purpose of assessing the competition implications of the proposed acquisition, the appropriate markets are those which were defined in Decisions 426 and 468:
- the market for the production and supply of pulplogs in the CNI;
  - the market for the production and supply of unpruned sawlogs in the CNI; and
  - the market for the production and supply of pruned sawlogs in the CNI, Hawke's Bay, and Auckland.

#### **Temporal Dimension**

104. The Commission typically views markets as operating continuously over time. However, temporal considerations may be important where depletable resources are involved, as is the case with forestry, where production depends substantially on the level of planting that occurred years before the harvesting of the trees takes place<sup>33</sup>. Therefore, each firm's potential production will depend on the age structure of its forests, and its market share can vary over time.
105. As in Decisions 426 and 468, the Commission considers that it appropriate to define distinct temporal dimensions within the relevant markets.
106. The Applicant submitted that the relevant timeframes are 2006-2010, 2011-2015, and 2016-2020. The Applicant notes that there is reasonably low substitutability on the demand- and supply-side between timber harvested in different periods, although forest owners may be able to accelerate or defer harvest by some years.
107. The Commission understands that acceleration of harvesting levels may be constrained by the loss of value in cutting a younger tree. Deferral of harvesting may be less problematic, due to the resulting increase in value of the ageing forest; however this too is constrained by the limited harvest window<sup>34</sup>.
108. The Commission therefore considers that it is appropriate to include a temporal dimension in the relevant markets.

#### **Conclusion on Market Definition**

109. The Commission concludes that the relevant markets are:
- the markets for the production and supply of pulplogs in the CNI, for the periods 2006-2010, 2011-2015 and 2016-2020;
  - the markets for the production and supply of unpruned sawlogs in the CNI, for the periods 2006-2010, 2011-2015 and 2016-2020; and
  - the markets for the production and supply of pruned sawlogs in the CNI, Hawke's Bay, and Auckland, for the periods 2006-2010, 2011-2015 and 2016-2020.

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<sup>33</sup> Radiata pine, which accounts for around 89% of New Zealand's plantation forests, is most economic to harvest between 27 and 33 years.

<sup>34</sup> The Commission addresses this issue in the competition analysis section of this report.

## COUNTERFACTUAL AND FACTUAL

110. In reaching a conclusion about whether an acquisition is likely to lead to a substantial lessening of competition, the Commission makes a comparative judgement considering the likely outcomes between two hypothetical situations, one with the acquisition (the factual) and one without (counterfactual).<sup>35</sup> The difference in competition between these two scenarios is then able to be attributed to the impact of the acquisition.

### Factual

111. For the purposes of this application, the Commission considers that in the factual scenario Hancock will continue to own and manage its existing forestry estates in the CNI region, and will will own and manage CHH's forestry assets in the Auckland and Northland, CNI and Nelson regions.

### Counterfactual

112. Hancock is one of a number of bidders for CHH's forestry assets. The Commission was advised by CHH that the other bidders involved are:

- CRBF Limited, an investment fund advised by GFP;
- [ ]; and
- [ ].

113. The Commission considers that for the purposes of this application, the relevant counterfactual scenario is the acquisition of the CHH forests by a third party that does not presently have a major interest in New Zealand forestry.

## COMPETITION ANALYSIS

### Pulplog Markets

#### *Existing Competition*

114. Existing competition occurs between those businesses in the market that already supply the product, and those that could readily do so by adjusting their product-mix (near competitors).

115. An examination of concentration in a market can provide a useful indication of the competitive constraints that market participants may place upon each other, providing there is not significant product differentiation. Moreover, the increase in seller concentration caused by a reduction in the number of competitors in a market by an acquisition is an indicator of the extent to which competition in the market may be lessened.

116. A business acquisition is considered unlikely to substantially lessen competition in a market where, after the proposed acquisition, either of the following situations exist:

- The three-firm concentration ratio (with individual firms' market shares including any interconnected or associated persons) in the relevant market is below 70%, the combined entity (including any interconnected persons or associated persons) has less than in order of 40% share; or

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<sup>35</sup> Air New Zealand & Qantas Airways Ltd v Commerce Commission (No.6), unreported HC Auckland, CIV 2003 404 6590, Hansen J and KM Vautier, Para 42.



- The three-firm concentration ratio (with individual firms' market shares including any interconnected or associated persons) in the relevant market is above 70%, the market share of the combined entity is less than in the order of 20%.
117. The Applicant submitted that the combined entity would continue to face competition from a number of existing competitors in the pulplog market, including KT, Matariki, Winstone, and a number of small producers that collectively constitute a significant competitive presence.
118. The Commission has gathered information from the Applicant and other relevant parties, and has used this to estimate market shares for the pulplog markets as set out in Table 3.

**Table 3: Future Wood Flows for Pulplogs in the CNI**

Forest Owner/Manager	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Hancock	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<i>Combined entity</i>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Imports	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI supply</b>	[ ]	<b>100%</b>	[ ]	<b>100%</b>	[ ]	<b>100%</b>

Source: Industry Participants

119. The market shares in Table 3 relate to the production and supply of pulplogs in the CNI. The combined entity has the largest volume of wood flow in the CNI across all time periods; its greatest competitor in the CNI pulplog markets is KT.
120. Small woodlots also make up a significant proportion of pulplogs in the CNI market across all time periods. This is due to the relatively high volume of projected woodlot harvests and the uncommitted nature of these logs - all woodlot logs flow directly into the CNI pulplog market, as none of it is tied into long-term contracts.
121. A number of these woodlots are administered by forest managers such as NZFM. Harvest contractors aggregate harvest from a number of different sources, providing a single point of sale for a proportion of the small woodlot pulplogs in the CNI. Accordingly, NZFM's market shares are presented separately from other small woodlots<sup>36</sup>.
122. The remaining owners of small woodlots in the CNI are numerous and fragmented. According to MAF, [ ] % of the 1,853 forest owners in the CNI, hold less than 40 ha each<sup>37</sup>.
123. Industry participants commented that the disjointed nature of these remaining woodlots makes their wood flows somewhat less predictable than larger forestry

<sup>36</sup> [ ] .

<sup>37</sup> NEFD 2005, Table 10.5 and Table 10.6. This equates to nine percent of the total forest land in the CNI region.

operators' wood flows. NZFM advised the Commission that wood flows from small woodlots tend to be sporadic, and highly dependent upon the returns available to the woodlot owner. In addition, the majority of the wood coming out of small woodlots is during summer months, when access is easier for heavy logging machinery. PF Olsen advised that because of the nature of woodlot harvesting, the actual harvest could differ from its planned harvest by up to [ ] percent.

124. For this reason, the Commission considers that any degree of constraint posed by small woodlots is likely to be of a lesser magnitude than that of their larger counterparts, such as KT, Crown Forestry and Matariki.
125. In Decisions 426 and 468, the Commission considered the extent to which wood flows were committed to particular uses<sup>38</sup>, and therefore the extent by which the merged entity would be able to control or influence the flow of wood to acquirers, such as independent sawmills.
126. For the purpose of assessing the competition implications of the current application, the Commission considers that it is only residual wood flows that could be controlled or influenced by the merged entity. That is, wood flows that are committed to long-term contracts<sup>39</sup> are not contestable in the market for pulplogs in the CNI. The market shares for residual wood flows for the pulplog markets are set out in Table 4 (Appendix 1).
127. Table 4 indicates that in the 2006-2010 time period, Hancock has a market share of [ ] % of residual supply, with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %, which is within the Commission's safe harbour guidelines.
128. In the 2011-2015 time period, Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %, which is inside the Commission's safe harbour guidelines.
129. In the 2016-2020 time period, Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %; this is within the Commission's safe harbour guidelines.
130. The Commission recognises that concentration is only one of a number of factors to be considered in the assessment of competition in a market. In order to understand the impact of the acquisition on competition, and having identified the level of concentration in a market, the Commission considers the behaviour of businesses in the market.
131. Winstone is a vertically-integrated forestry operator that has two forests, the Karioi Forest and Waimarino Forest, which supply its pulpmill in Karioi<sup>40</sup>.

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<sup>38</sup> Such as self-supply for the case of vertically integrated forestry operators and long-term supply contracts.

<sup>39</sup> Logs purchased on the spot market are acquired by quarterly negotiation for volume and price. For the purposes of assessing the competition implications of the proposed acquisition, the Commission considers that a long-term contract is a supply commitment between a forest operator and a sawmill for a time period longer than three months.

<sup>40</sup> Winstone also has a sawmill in Tangiwai that processes unpruned sawlogs.

David Anderson, General Manager, Winstone, told the Commission that Winstone does not compete with other log suppliers to supply pulplogs to any of the other pulpmills as its pulpmill consumes all of its pulplog harvest and its location makes transportation of pulplogs to other pulpmills uneconomic.

132. Given that Winstone uses all of its pulplogs, the Commission considers that post-acquisition, Winstone would not provide any significant competitive constraint on the merged entity in the markets for the production and supply of pulplogs in the CNI.
133. In the 2006-2010 time period the combined entity will contribute the greatest volume of residual wood flow into the CNI pulplog market. During this time period, the combined entity's major competitors will be [ ]. The volume of residual logs from [ ] is almost equal to that of the combined entity.
134. [ ]
- [ ]
135. [ ] KT's wood flow is committed to a large long-term contract that was contingent upon its acquisition of the Kaingaroa Forest from FCF<sup>41</sup> <sup>42</sup>.
136. In either case, the combined entity's market share is only [ ] greater in the factual than the counterfactual. This because of [ ]
- [ ]
137. Hancock is also committed to long-term supply agreements to the Tasman mills and the Laminex<sup>43</sup> factory in Taupo<sup>44</sup> as part of its acquisition of the ex-FCF forestry estates. When Tenon sold its pulpmills to Norske Skog in 2001<sup>45</sup>, the contract continued as a back-to-back supply agreement. That is, Tenon remained as the contract holder but the contracted pulplogs and woodchip are sent from KT (and pulplogs from Hancock) directly to the pulpmills. [ ]
138. The pulplog contracts are for a fixed annual volume, and prices are reviewed quarterly. The price review is based on a formula that is referenced to an international pulp price index. [ ]

<sup>41</sup> The Tasman mills were acquired by Norske Skog from Tenon in 2001. Norske Skog kept the newsprint mill and sold the pulpmill to CHH.

<sup>42</sup> The Tasman contract was established in 1955 between the Crown and the Tasman mills, and has passed through various hands as different acquisitions have occurred over time.

<sup>43</sup> The Tasman mills and the Laminex factory were subject to arm's length agreements between FCF and Tenon (FCF's sawmill and pulpmill operations). These agreements were inherited by Hancock when it acquired some portion of FCF's forestry estate.

<sup>44</sup> The Laminex MDF plant in Taupo burnt down in September 2006.

[ ]

<sup>45</sup> Whakatane and Kawerau were sold to CHH, and the other Kawerau pulpmill was sold to Norske Skog.

- ].
139. [ ]].
140. The combined entity contributes the greatest volume of residual pulplogs into the CNI market during the 2011-2015 time period. However, its market share is only [ ] % greater in the factual than the counterfactual. This is again due to the [ ] of the pulplog harvest from the CHH forestry estate.
141. The combined entity's greatest competitors during the 2011-2015 time period are [ ], and to a lesser extent, [ ]. [ ]].
142. The combined entity has the greatest market share of residual pulplogs in the 2016-2020 time period. However, its market share is only [ ] % greater in the factual than the counterfactual. This is as a result of [ ]].
143. Hancock [ ]<sup>46</sup>. Furthermore, Hancock's Viking Global fund is a fixed term fund due to terminate in [ ], and its harvesting rights for the Viking forest have been synchronised to conclude in tandem with the expiration of the fund<sup>47</sup>.
144. The combined entity's greatest competitor during the 2016-2020 time period is [ ], and to a lesser extent, [ ]].
145. In Decision 468, the Commission did not consider it necessary to assess demand requirements in the pulplog markets because of the unique structure of the pulplog markets. However, the Commission is of the view that for the purpose of assessing the competition implications of the proposed acquisition, given the large volumes of long-term supply contracts and the present harvest conditions, a diligent assessment of the pulplog market should consider demand requirements. For the purpose of assessing demand requirements, the Commission has not included wood flows that are tied into long-term contracts, as these volumes are not contestable.
146. As discussed previously, Norske Skog and CHH have long-term contracts for pulplogs with KT and Hancock. The residual wood flows are sold to pulpmills on the spot market. Table 5 shows the residual demand volumes of pulplogs in the CNI markets across all time periods.

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<sup>46</sup> Hancock has [ ]].

<sup>47</sup> Hancock's OTHP forest has a [ ]].

**Table 5: Future Residual Demand for Pulplogs in the CNI**

Pulpmill	Wood flow: Average volumes per year						
	2006-2010		2011-2015		2016-2020		
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	
Norske Skog	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%	
Less contracted supply	Combined Entity	[ ]	[ ]	[ ]	[ ]	[ ]	
	KT	[ ]	[ ]	[ ]	[ ]	[ ]	
<b>Norske Skog Residual Demand</b>		[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH		[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	Combined Entity	[ ] <sup>48</sup>	[ ]	[ ]	[ ]	[ ]	[ ]
	KT	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
	Matariki	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>CHH Residual Demand</b>		[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
SCA Hygiene		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Less contracted supply	Matariki	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>SCA Hygiene Residual Demand</b>		[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone		[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less internal supply		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Less contracted supply		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Less imports		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Winstone Residual Demand</b>		[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Total CNI Demand		[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
<b>Total CNI Residual Demand</b>		[ ]	100%	[ ]	100%	[ ]	100%

Source: Industry Participants

147. SCA Hygiene manufactures tissue products at its Kawerau processing plant, sourcing pulp from its own pulpmill at Kawerau. SCA Hygiene advised the Commission that [ ]].
148. Norske Skog acquired the Tasman newsprint mill from Tenon in 2001. It processes [ ] m<sup>3</sup> of wood fibre per year, which consists of [ ] % woodchip and [ ] % pulplogs. The woodchip is sourced from various sawmilling operations in the CNI, including [ ]. Of its pulplog requirements, [ ] is sourced from KT, [ ] from Hancock, and the remaining [ ] is purchased on the spot market from stumpage contractors and forest management companies.
149. Spence McClintock, Manager Supply and Logistics, Norske Skog, advised the Commission that its processing is dictated by the level of activity in the industry, so if the volume of residual logs available in the CNI decreases, Norske Skog has the ability to reduce its processing operations. For this reason, Norske Skog is not concerned about the quality and consistency of logs sourced from small woodlots.
150. Winstone's pulpmill consumes [ ] m<sup>3</sup> of pulplogs and woodchip per year, with [ ] being sourced from its own forests. The remainder is sourced from other forestry operators, of which approximately [ ] is from forests

<sup>48</sup>

[ ]

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located in the CNI. Winstone is not a party to any long-term supply contracts and therefore purchases all of its pulplogs on the spot market.

151. Mike Dodgson, General Manager of Forestry, Winstone, advised the Commission that Winstone's location means that it can readily source logs from the SNI region as well as the CNI. Winstone presently sources [ ] of its pulplogs and wood-chip from the SNI. Its largest suppliers are [ ].
152. Winstone's main concern regarding the proposed acquisition is that if supply is further restricted in the CNI, the other pulpmills would stretch further afield to acquire pulplogs, possibly muscling in on its supply sourced from [ ]. However, Winstone said that it too would also be able to stretch further south to acquire pulplogs, and that there is a large number of small woodlots, farmlots and council-owned forests in the SNI from which it could source pulplogs. Like Norske Skog, the quality of logs from small woodlots is not of concern to Winstone, as it does not require a high quality log for its pulpmill operations.
153. CHH Kawerau<sup>49</sup> processes [ ] m<sup>3</sup> of pulplogs per year. In the 2006-2010 and 2011-2015 time periods, the demand requirement of these mills is [ ] the Tasman and FCF contracts. In the 2016-2020 time period the volume of logs [ ] meaning that during this time period, CHH Kawerau will be a purchaser of residual pulplogs.
154. CHH Kinleith consumes [ ] m<sup>3</sup> of wood fibre per year of which [ ] m<sup>3</sup> is pulplogs. [ ], making CHH Kinleith the largest purchaser of pulplogs on the spot market in the CNI.
155. CHH advised the Commission that its choice to source [ ] its pulplogs on the spot market was based on its view that there would be an abundant supply of pulplogs in the CNI. CHH presently sources pulplogs for its Kinleith pulpmill from a number of different suppliers, including [ ].
156. Table 6 shows the relationship between residual demand and supply for the CNI pulplog markets.

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<sup>49</sup> Includes CHH Whakatane.

**Table 6: Future Residual Supply and Demand for Pulplogs in the CNI**

	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
<b>Residual Supply</b>						
<b>Forest Owner/Manager</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>
Combined Entity	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Imports	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI Residual Supply</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>
<b>Residual Demand</b>						
<b>Pulpmill</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>
Norske Skog	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
SCA Hygiene	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI Residual Demand</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>
<b>Total CNI Excess Residual Supply</b>	<b>[ ]</b>		<b>[ ]</b>		<b>[ ]</b>	

Source: Industry Participants

157. An assessment of residual demand and supply for the CNI pulplog markets shows that supply is in excess of demand for all of the time periods analysed.

#### Expansion through Early Harvest

158. The Applicant submitted that although establishment of a new forest is relatively slow<sup>50</sup>, trees can be harvested some years earlier (or later) than normal by existing competitors.

159. Industry participants that the Commission spoke to all agreed that the peak time for harvesting radiata is from the ages of 27-33 years, which gives some scope for harvest flexibility.

160. KT said that its current harvest is

[

]. It said that if there was a log shortage in the

CNI it would

[

].

161. [ ] are cutting at their maximum sustainable harvest level. They advised the Commission that a harvest increase could be implemented in the short-term; however, in the long-term this would have to be compensated for, either through a reduction in harvest age or a reduction in harvest levels.

162. Industry participants also emphasised that short-term harvest level increases are constrained to some extent by infrastructure requirements, such as roads and

<sup>50</sup> In Decisions 426 and 468, the Commission considered that any newly planted forest does not become productive for approximately 27 years, and therefore would not provide any constraint in the relevant periods.

employing logging crews. [ ] indicated that at most, they could increase their harvest by 20% in the short-term.

163. Post-acquisition, the combined entity's only competitor that would not be cutting at its maximum sustainable harvest level is [ ]. The Commission is of the view that it is unlikely that larger forestry owners would substantially alter their harvest strategies in order to accelerate harvesting rates in the short-term.
164. In terms of small woodlots, industry participants advised the Commission that most small woodlots do not require the same degree of infrastructure to facilitate harvesting as larger plantation forests<sup>51</sup>. For this reason, small woodlots are more readily able to increase harvest levels. NZFM said that it is common for wood flows from small woodlots to increase during times of increased demand and higher log prices.
165. However, the fragmented nature and small size of woodlots means that it is unlikely that an expansion through early harvest would release a significant additional volume of pulplogs into the CNI markets, and therefore is unlikely to act as a significant constraint upon the combined entity in the factual scenario.

#### Conclusion on Expansion through Early Harvest

166. The Commission considers that it is unlikely that large forestry operators, such as KT, Matariki and Crown Forestry, would be able to expand through early harvest of existing forests, because of the requirement for sophisticated harvest infrastructure in the short-term, and the subsequent impact upon the ability to sustain projected harvest levels in the long-term.
167. The Commission considers that it is likely that small woodlots would be able to expand through early harvest of existing forests, as small woodlots do not have the same requirement for sophisticated infrastructure. However, the fragmented nature and small size of woodlots leads the Commission to form the view that expansion through early harvest by small woodlots is not likely to be of a significant magnitude to act as a constraint upon the combined entity in the factual scenario.

#### Expansion through Diversion from Export

168. The Applicant submitted that due to the significant differential between export pricing and local market prices, the excess of supply over demand in New Zealand generally, in the CNI specifically, it is likely that in response to any attempt to increase price by the merged entity, existing competitors would redirect export supply of processing grade logs to the New Zealand market. The Commission notes that the Applicant's comments regarding export diversion generally pertain to unpruned logs, which are discussed later in this determination.
169. In Decision 426, the Commission considered that the merged entity would be constrained by diversion of pulplogs destined for export back into the domestic market.
170. None of the forestry operators that the Commission spoke to currently export pulplogs on a regular basis. Only one forestry operator in the CNI indicated that it may consider exporting significant volumes of pulplogs in the future.

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<sup>51</sup> Although the lack of sophisticated infrastructure may mean that woodlots become difficult to access during winter months.



171. [ ] advised the Commission that although it does not currently export pulplogs, it anticipates that when its harvest volume increases, it will commence exporting pulplogs.
172. There are a number of factors that affect the incentive to export pulplogs, including foreign exchange rates and global log prices. These conditions are highly variable and cannot be easily predicted. For these reasons, the Commission considers that it cannot speculate as to the likelihood of future export volumes of pulplogs in the CNI markets, and bases its assessment on the current levels of export.

#### Conclusion on Expansion through Diversion from Export

173. The Commission considers that, based on current pulplog export levels, it is unlikely that existing competitors would expand through diversion from export in the factual scenario.

#### Merger Simulation

174. In considering the likely impact of the proposed acquisition, the Commission has undertaken some simulation work, based on a Cournot model of competition<sup>52</sup>. The Commission considers that a Cournot model was appropriate for the purpose of assessing the current application as the products under consideration are relatively homogeneous. In addition, the assumption that competitors' output remains constant is consistent with indications that log supply is relatively inelastic.
175. In order to run the simulation, the Commission used the residual supply market shares for each of the time periods under consideration. Utilisation of the residual supply market shares is considered appropriate as the residual supply market shares eliminate minimum volumes contained in long-term supply contracts, which are unlikely to be impacted upon in the event that the combined entity was able to exercise market power. The Commission used log prices provided by MAF<sup>53</sup>.
176. The results of the simulation run for the CNI pulplog markets indicates that the proposed acquisition may lead to an increase in pulplog prices of 0.2% p.a. over 2006-2010; 1.0% p.a. over 2011-2015; and 1.2% p.a. over 2016-2020.
177. Merger simulation can provide a helpful guide in assessing the possible pricing impact of an acquisition. The Commission notes that the merger simulation is only one element of its analysis of the competition implications of the proposed acquisition. The merger simulation takes no account of qualitative factors that will typically be relevant, such as countervailing power of acquirers, or the scope for coordinated market power in the factual scenario. The Commission has considered these issues separately as part of this decision.
178. Furthermore, the Commission notes that imports into the CNI (which account for an estimated [ ]% - [ ]% of residual supply in the region), and supply from small woodlots (accounting for [ ]% - [ ]% of residual supply) are likely to be

<sup>52</sup> The Cournot model used can be found at <http://csgb.ubc.ca/ccpp/simulation/>

<sup>53</sup> Specifically, the price for each type of log delivered to the mill, and averaged over the last 4 quarters was used. For pulplogs, the price used is \$44 per m<sup>3</sup>; for unpruned logs, the price is \$72 per m<sup>3</sup> (an average of industrial and structural grades); and for pruned logs, the price used is \$122 per m<sup>3</sup>.

fragmented sources of supply<sup>54</sup>. The merger simulation, which treated imports and “other” supply as single entities, is likely to have produced results that have overstated the degree of concentration, and therefore overstated any potential increase in pulplog price in the factual scenario.

179. The modelling undertaken indicates that the upper bound of any price increase resulting from the proposed acquisition is likely to be less than 2% in the CNI pulplog markets.

#### Conclusion on Merger Simulation

180. The Commission considers that the result of the merger simulation is consistent with the Commission’s view regarding existing competition, that is, the combined entity would continue to face some degree of constraint from large forestry operators, such as KT, Matariki and Crown Forestry, as well as small woodlots in the factual scenario.

#### *Conclusion on Existing Competition*

181. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry would likely provide a degree of constraint on the combined entity in the factual scenario. Small woodlots would also provide a degree of constraint on the combined entity in the factual scenario, although to a lesser extent because of their fragmented nature and variability in harvest.
182. Because of the requirement for sophisticated harvest infrastructure in the short term, and the subsequent impact upon the ability to sustain projected harvest levels in the long term, the Commission considers that it is unlikely that large forestry operators would be able to expand through early harvest of existing forests.
183. The Commission considers it is likely that small woodlots would be able to expand through early harvest of existing forests, as small woodlots do not have the same requirement for sophisticated infrastructure. However, the fragmented nature and small size of woodlots leads the Commission to form the view that expansion through early harvest by small woodlots is not likely to be of a significant magnitude to act as a constraint upon the combined entity in the factual scenario.
184. Based on current pulplog export levels, the Commission considers that it is unlikely that existing competitors would expand through diversion from export in the factual scenario.
185. The Commission considers that the result of the merger simulation is consistent with the Commission’s view regarding existing competition, that is, the combined entity would continue to face some degree of constraint from large forestry operators, such as KT, Matariki and Crown Forestry, as well as small woodlots in the factual scenario.
186. Accordingly, the Commission concludes that post-acquisition, the combined entity would be likely to face a degree of constraint from existing competition in the market for the production and supply of pulplogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

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<sup>54</sup> For example, according to MAF statistics, 98% of forest owners in the CNI (1,833 out of a total of 1,853) own less than 1,000 hectares, but collectively account for only 13% of the CNI forested area. MAF, *National Exotic Forest Description*, 2005, Table 10.5 and Table 10.6.

*Countervailing Power*

187. In some circumstances the potential for the combined entity to exercise market power may be sufficiently constrained by a buyer or supplier to eliminate concerns that an acquisition may lead to a substantial lessening of competition.
188. The Applicant submitted that the purchasers of pulplogs are all significant firms with a large degree of countervailing power. Furthermore, CHH has a high degree of countervailing power as it is the major purchaser of pulplogs in the CNI.
189. In Decisions 426 and 468, the Commission considered that the purchasers of pulplogs in the CNI were all large firms that each had a significant degree of countervailing power.
190. CHH is essentially a monopsonist, purchasing approximately [ ] % of residual pulplogs in the CNI pulplog markets. As discussed previously, post-acquisition CHH anticipates sourcing approximately [ ] % of its required [ ] m<sup>3</sup> per year of pulplogs for the CHH Kinleith pulpmill on the spot market.
191. [ ] advised the Commission that at present its largest purchaser of pulplogs is CHH, and that its greatest concern regarding the proposed acquisition is that the CHH pulpmills will reduce their demand from [ ] .
192. [ ] said that this is of concern because there are few purchasers of pulplogs in the CNI, and it would be difficult for it to find other purchasers of pulplogs. [ ] could not send pulplogs into another market, such as Hawke's Bay, because after transportation costs had been factored in, it would not make any money on the sale of the logs. In addition, [ ] believes that Pan Pac has sufficient supply of pulplogs in Hawke's Bay.
193. The Commission is of the view that the size and proportion of pulplog purchases made by CHH, and the limited alternative outlets to which pulplogs could be supplied affords CHH a degree of countervailing power in the CNI pulplog markets,
194. As discussed previously, purchasers of pulplogs in the CNI markets acquire them in two major ways: long-term contracts, and the spot market. The Commission has explored the ability of other pulplog purchasers to exercise countervailing power through both of these acquisition methods.
195. Norske Skog<sup>55</sup> advised the Commission that although there is provision for third-party price determination within its long-term supply contracts, it has never called for price determination because it has never felt the need to do so. Norske Skog considers that by using a formula to calculate pulplogs prices each quarter, the price negotiation process is sufficiently transparent that it can be assured that the price is fair and corresponds to market prices. In either case, Norske Skog  
[ ] .
196. [ ] .

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<sup>55</sup> Norske Skog has long-term supply agreements for pulplogs with KT and Hancock.

197. [

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198. [

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199. The Commission considers that the pricing mechanism common to long-term contracts, which consider overall market prices for pulplogs, as well as third-party determination in the event that an agreement on price cannot be met between parties, provides acquirers of pulplogs with a vehicle to exercise countervailing power. The Commission considers that there is sufficient evidence to suggest that these acquirers can and do exercise countervailing power.
200. Turning to the spot market, the Commission was advised by Norske Skog, Winstone and SCA Hygiene that there are a number of options available to them regarding the purchase of pulplogs on the spot market.
201. Of the pulplogs that it purchases on the spot market, Winstone currently purchases [ ] of its pulplogs from forestry operators based in the SNI. As discussed previously, Winstone advised the Commission that it would be able to reach further afield to source additional volumes of pulplogs from the SNI.
202. [

]. Consequently, SCA Hygiene currently sources [ ] % of its woodchip requirements from a harvest contractor that sources and chips wood on its behalf.

203. The Commission considers that the range of pulplog producers, coupled with the excess supply of pulplogs and the limited number of pulplog outlets in the CNI, gives acquirers of pulplogs an advantageous position in terms of countervailing power.

#### *Conclusion on Countervailing Power*

204. The Commission considers that acquirers of pulplogs, such as Norske Skog, CHH Kinleith and Winstone, would likely provide a degree of constraint on the combined entity in the factual scenario, because of the excess supply of pulplogs and the limited number of outlets for pulplogs in the CNI region.
205. Accordingly, the Commission concludes that post-acquisition, the combined entity would be likely to be constrained by acquirers of pulplogs in the market for the production and supply of pulplogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

#### *Unilateral Market Power*

206. Once existing and potential competition and other competition factors have all been considered, the Commission is in a position to draw a conclusion as to whether the proposed acquisition would result in circumstances where there would be a substantial lessening of competition in the relevant market or markets, or, equivalently, whether circumstances would be such as to lead to the

‘creation, enhancement or facilitation of the exercise of market power’ in those markets. It is the creation of the potential for a business to exercise market power that is the focus of the analysis, rather than whether or not the market power would actually be exercised should it be obtained.

207. A number of industry participants that the Commission spoke to expressed concern that as a TIMO, Hancock has an incentive to “lock up” its forests, [ ]. Sawmills, such as [ ] were concerned that the combined entity would reduce its harvest because it would mean that there would be less logs available in the CNI, which is likely to result in price increases.
208. [ ] advised the Commission that TIMOs are more likely to leave trees standing to increase the asset value, whereas a vertically integrated company is significantly more capital intensive and must maintain harvest levels for cashflow reasons.
209. The Commission considers that the ability for Hancock to “lock-up” its own forests is present in both the factual and the counterfactual, and therefore it is not necessary to explore this scenario further. The Commission will explore the combined entity’s scope to exercise unilateral market power in the factual scenario, in terms of its ability to reduce the current volume of pulplogs sold on the spot market by reducing wood flow from the CHH forests.
210. Post-acquisition, [ ], the combined entity will need to continue cutting the CHH forests at a level approximate to current harvest levels.
211. Hancock advised the Commission that in the event of a decrease in pulplog harvest, it would consider substituting industrial-grade unpruned sawlogs [ ].
212. The Commission notes that, although [ ] currently does this on occasion, when it is unable to meet its contracted volumes for supply of pulplogs through any other means<sup>56</sup>, substituting the more valuable industrial-grade unpruned sawlogs in the place of pulplogs is not a viable long-term option. In doing so, the combined entity would be forfeiting its ability to take advantage of the comparatively higher price fetched by unpruned sawlogs.
213. Furthermore, the Commission is of the view that the combined entity would be unable to adopt a similar approach to that of [ ] in terms of supplementing its long-term contracted supply with woodchip and processing by-products, [ ].
214. In either case, in the 2006-2010 time frame, [ ]. The volume sold on the spot market [ ]. The Commission therefore considers that there is negligible scope for the merged entity to exercise unilateral market power during the 2006-2010 time period.
215. [ ]

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<sup>56</sup> As discussed previously, [ ], as well as by-products from its own operations, to compensate for a shortfall in pulplog supply.

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216. For this reason, [ ], the volume of pulplogs sourced from the CHH forestry estate and sold on the spot market will [ ] % in the 2011-2015 time period and [ ] % in the 2016-2020 time period.
217. The Commission has therefore examined the scope for unilateral market power in terms of the combined entity's ability to be able to reduce the volume of pulplogs sold on the spot market through the 2011-2015 and 2016-2020 time periods by holding back harvest [ ].
218. As discussed previously in the context of expansion through early harvest, there is a limited window of opportunity for forest operators to maximise return on investment. Although value can be added by deferring the harvesting of the forest and thus increasing the age of the tree, this increase in value must exceed the rate of discount in order to be a viable strategy in present value terms. The Commission understands that although the value of the tree does increase with time, it reaches a point where the gains from further deferral are insufficient to outweigh the loss in time value. As this point is reached, it is no longer economic to further delay, and the tree is harvested.
219. KT explained that there is an upper age limit as to when trees can be harvested. Other than reduced return on investment, it becomes logistically difficult to harvest older trees, and the wood is too dense and therefore unable to be cut by existing processors in the CNI region.
220. To this end, the Commission considers that it would not be rational for the combined entity to [ ] holding back harvest in the factual scenario.
221. Furthermore, the Commission considers that the overall surplus in pulplog supply, acts as an incentive for the combined entity to continue harvesting and competing to dispose of its pulplogs into the limited number of pulplog outlets in the factual scenario.

#### *Conclusion on Unilateral Market Power*

222. The Commission considers that the combined entity is incentivised to continue harvesting, at least at its current harvest levels, [ ] in the factual scenario.
223. In addition, the Commission considers that the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest, [ ].
224. Furthermore, the Commission considers that the combined entity is incentivised to continue harvesting and competing to dispose of its pulplogs in the factual scenario, due to the overall surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
225. Accordingly, the Commission concludes that the scope for unilateral market power is unlikely to be enhanced by the proposed acquisition in the market for

the production and supply of pulplogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

*Scope for Coordinated Behaviour*

226. The Commission is of the view that where an acquisition materially enhances the prospects for any form of co-ordination between businesses in the market, the result is likely to be a substantial lessening of competition.
227. In broad terms, effective co-ordination can be thought of as requiring three ingredients: collusion, the ability to detect any deviation from the coordinated behaviour, and the ability to retaliate and punish the deviating firm.
228. There are a number of factors that may indicate that collusion is possible. Pulplogs are generally undifferentiated, production technology is static, new entry is extremely slow, and competitors may be constrained in their attempts to respond to any coordinated attempt to raise prices, due to the difficulties in accelerating the rate at which forests are harvested<sup>57</sup>.
229. Post-acquisition, the largest suppliers of pulplogs in the CNI region are the combined entity, KT, Matariki and Crown Forestry.
230. As discussed in the context of unilateral market power, the Commission considers that the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest,  
[ ]. The Commission considers that this would also apply to KT,  
[ ].
231. The Commission considers that the combined entity, and its competitors, are incentivised to continue harvesting and competing to dispose of their pulplogs, as a function of the projected surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
232. Furthermore, the Commission is of the view that fringe competitors<sup>58</sup>, which collectively have a market share varying between [ ] and [ ] across the three time periods, are also likely to act as an additional constraint on the ability of larger players to coordinate their behaviour.
233. For these reasons, the Commission considers that the scope for coordinated behaviour in the CNI pulplog markets is unlikely to be materially enhanced as a result of the proposed acquisition.

*Conclusion on the Scope for Coordinated Behaviour*

234. The Commission considers that forestry operators are incentivised to continue harvesting and competing to dispose of pulplogs in the factual scenario, because of the inability to hold back harvest for an ongoing period of time, the surplus of pulplog supply, and limited number of pulplog outlets in the CNI region.
235. Furthermore, the Commission considers that the large number of fringe competitors also limits the scope for coordinated behaviour in the factual scenario.

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<sup>57</sup> As discussed elsewhere, these difficulties include infrastructural constraints, as well as limitations relating to harvesting younger trees.

<sup>58</sup> Including harvest managers PF Olsen and NZFM, as well as small, independently owned and harvested woodlots. This also includes imports.

236. Accordingly, the Commission concludes that the scope for coordinated behaviour is unlikely to be enhanced by the proposed acquisition in the market for the production and supply of pulplogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

### **Conclusion on Pulplog Markets**

237. The Commission considers that in the factual scenario, the combined entity will continue to face some degree of constraint from existing competitors, and that the result of the merger simulation is consistent with this view.
238. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry, are unlikely to expand through early harvest, because of the requirement for sophisticated harvest infrastructure, and the subsequent impact on the ability to sustain projected harvest levels.
239. Regarding small woodlots, the Commission considers that they would provide a comparatively lesser degree of constraint on the combined entity, because of their fragmented nature and variability in harvest. Consequently, although the Commission considers that small woodlots are likely to expand through early harvest, as they do not have the same infrastructure requirements, the Commission considers that expansion through early harvest is unlikely to be of a sufficient magnitude to act as a constraint on the combined entity.
240. Based on current pulplog export levels, the Commission considers that it is unlikely that existing competitors would expand through diversion from export in the factual scenario.
241. Because of the excess supply of pulplogs and the limited number of outlets for pulplogs in the CNI region, the Commission considers that acquirers of pulplogs are also likely to act as a constraint upon the combined entity.
242. The Commission considers that the scope for unilateral market power is unlikely to be enhanced in the factual scenario because the combined entity is incentivised to continue harvesting, at least at its current harvest levels,  
[  
]. In addition, the Commission considers that the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest,  
[  
].  
Furthermore, the Commission considers that the combined entity is incentivised to continue harvesting and competing to dispose of its pulplogs in the factual scenario, due to the overall surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
243. The Commission considers there is that it is unlikely the scope for coordinated market power will be enhanced in the factual scenario. The Commission considers that forestry operators are incentivised to continue harvesting and competing to dispose of pulplogs in the factual scenario, because of the inability to hold back harvest for an ongoing period of time, the surplus of pulplog supply and the limited number of pulplog outlets in the CNI region. The large number of fringe competitors in the CNI pulplog markets places additional limitation upon the scope for coordinated behaviour post acquisition.
244. Accordingly, the Commission concludes that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening



competition in the market for the production and supply of pulplogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

## Unpruned Sawlog Markets

### *Existing Competition*

245. The Applicant submitted that, post acquisition, the merged entity would continue to face competition from a number of existing competitors in the unpruned sawlog market, including KT, Matariki, Winstone, and a number of small producers which collectively constitute a significant competitive presence.
246. The Commission has gathered information from the Applicant and other relevant parties, and has used this to estimate market shares for the unpruned log markets, as set out in Table 7.

**Table 7: Future Wood Flows for Unpruned Sawlogs in the CNI**

Forest Owner/Manager	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Hancock	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<i>Combined entity</i>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Imports	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI supply</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>

Source: Industry Participants

247. The market shares in Table 7 show that the combined entity would have the largest volume of wood flow in the CNI across all time periods; the second largest contributor of unpruned sawlogs into the CNI markets would be KT.
248. As discussed in the context of the pulplog markets, the Commission considers that the fragmented nature of small woodlots and the variability in harvest means that small woodlots are likely to present a lesser degree of constraint than their larger counterparts, such as KT and Matariki. In either case, small woodlots do not constitute a significant proportion of wood flow in the CNI unpruned sawlog markets<sup>59</sup>.
249. As discussed in the context of the pulplog markets, the Commission considers, for the purpose of assessing the competition implications of the current application, the wood flows that are committed to long-term contracts are not contestable in the market for unpruned sawlogs in the CNI.

<sup>59</sup> Peter Berg, former president of the New Zealand Institute of Forestry (NZIF), advised the Commission that a significant volume of logs exported are sourced from small woodlots. Accordingly, small woodlots make up a relatively small proportion of the residual supply of unpruned sawlogs in the CNI markets.

250. The market shares for residual wood flows for the unpruned sawlog markets are set out in Table 8 (Appendix 1).
251. Table 8 indicates that in the 2006-2010 time period, presently Hancock has a market share of [ ] % with a three-firm concentration ratio of [ ] %. This falls within the Commission's safe harbour guidelines. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %. This is outside of the Commission's safe harbour guidelines.
252. In the 2011-2015 time period, Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %. This is outside the Commission's safe harbour guidelines.
253. In the 2016-2020 time period, Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %. This is outside of the Commission's safe harbour guidelines.
254. Winstone is a vertically-integrated player in the unpruned sawlog markets. Winstone is primarily focussed on self-supply to its sawmill located at Tangiwai. Winstone advised the Commission that it sells a small proportion of its unpruned sawlogs [ ] in order to maintain a market presence. The Commission considers that this volume of unpruned sawlogs is negligible in terms of the total volume of unpruned sawlogs in the CNI region. Accordingly, the Commission does not consider Winstone to be a significant competitive constraint in the CNI unpruned sawlog markets.
255. The combined entity is the greatest contributor of residual wood flow in the CNI unpruned sawlog market during 2006-2010. Its greatest competitors would be [ ] .
256. [ ] .
- [ ] . The combined entity will inherit CHH's existing long-term supply contracts<sup>60</sup> to Tachikawa, Red Stag, Lakesawn and Donnelly sawmills.
257. As a consequence of these long-term supply contracts, approximately [ ] of the unpruned sawlogs from the CHH forests are not contestable during the 2006-2010 time period.
258. As with the pulplog markets, KT's market share for residual unpruned sawlogs [ ] . [ ] of KT's wood flow is committed to two long-term contracts for supply<sup>61</sup> with Red Stag and CHH Kawerau. In addition, KT is projected to export [ ] % of its unpruned sawlog harvest.
259. Other competitors, such as Crown Forestry and Matariki will also export [ ] % of their unpruned sawlog harvest during the 2006-2010 time period.

<sup>60</sup> These long-term contracts provide for a set base volume for the duration of the contract, with the option to negotiate additional volumes annually. Prices are negotiated quarterly, and in the event that the parties cannot agree on a price, there is the ability to call in for third-party price determination.

<sup>61</sup> KT's acquisition of the Kaingaroa Forest was contingent upon it inheriting the long-term supply agreement for unpruned sawlogs to the Waipa sawmill, which was then acquired by Red Stag, and to the FCF Kawerau sawmill, which was then acquired by CHH.

260. In the 2011-2015 time period, the largest contributor of residual unpruned sawlogs to the CNI market would be the combined entity. The combined entity's residual volume [ ]]. However, the combined entity's market share in 2011-2015 [ ] because of the [ ]].
261. KT's harvest level for unpruned sawlogs [ ] from the 2006-2010 to the 2011-2015 time period. In addition, a small volume of unpruned sawlogs is released from the [ ] contract which ends prior to this time period. Subsequently, KT's [ ] % during the 2011-2015 time period.
262. Both NZFM's and Crown Forestry's market shares [ ] through the 2011-2015 time period. NZFM's harvest [ ] through the 2011-2015 and 2016-2020 time periods because of [ ]]. Crown Forestry's predicted harvest [ ] through these two time periods as Crown Forestry [ ]<sup>62</sup>.
263. The combined entity's residual volume [ ] during the 2016-2020 time period and it is the largest contributor of residual wood flow during this time period. This is because of a [ ] in the current CHH forests and [ ]]; the harvest from the Hancock forests is projected to [ ] throughout this time period.
264. Matariki's harvest [ ] across the three time periods for the CNI unpruned sawlog markets. [ ]].
265. As with the pulplog markets, the Commission considers that, for the purpose of assessing the competition implications of the proposed acquisition, a diligent assessment of the unpruned sawlog markets should consider demand requirements.
266. There are a number of sawmills that process unpruned sawlogs in the CNI region. The larger sawmills, Tachikawa, Red Stag, Lakesawn and CHH, have long-term contracts for supply with CHH and Hancock. For the purpose of assessing the demand in these markets, the Commission has not included wood flows that are tied into long-term contracts, as these volumes are not contestable.
267. The residual wood flows are acquired by sawmills on the spot market. Table 9 shows the residual demand volumes of pulplogs in the CNI markets across all time periods.

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<sup>62</sup> Crown Forestry

**Table 9: Future Residual Demand for Unpruned Sawlogs in the CNI**

Sawmill	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	[ ] <sup>63</sup>		[ ]			
Combined Entity						
Matariki	[ ]		[ ]			
<b>CHH Residual Demand</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Tachikawa	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	[ ]		[ ]		[ ]	
Combined Entity						
<b>Tachikawa Residual Demand</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Red Stag	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	[ ]					
Combined Entity						
<b>Red Stag Residual Demand</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Lakesawn	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	[ ]		[ ]		[ ]	
Combined Entity						
<b>Lakesawn Residual Demand</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
<b>Other Residual Demand</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Total CNI Demand	[ ]		[ ]		[ ]	
<b>Total CNI Residual Demand</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>

Source: Industry Participants

268. Table 10 shows the relationship between residual demand and supply for the CNI pulplog markets.

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[

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**Table 10: Future Residual Supply and Demand for Unpruned Sawlogs in the CNI**

	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
<b>Residual Supply</b>						
<b>Forest Owner/Manager</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>
Combined Entity	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Imports	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI Residual Supply</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>
<b>Residual Demand</b>						
<b>Sawmill</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Tachikawa	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Red Stag	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Lakesawn	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI Residual Demand</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>
<b>Total CNI Excess Residual Supply</b>	<b>[ ]</b>		<b>[ ]</b>		<b>[ ]</b>	

Source: Industry Participants

269. An assessment of residual demand and supply for the CNI unpruned sawlog markets shows that supply is in excess of demand for all of the CNI unpruned sawlog markets.

#### Expansion through Early Harvest

270. As discussed previously, in the context of the pulplog markets, the Commission considers that it is unlikely that larger forestry owners would substantially alter their harvest strategies such that harvest was increased in the short-term, because of the sophisticated infrastructure that is required in order to increase harvest operations. In addition, the Commission considers that in the long-term view, large forestry operators are unlikely to deviate from their strategic harvest plan and accelerate harvest levels earlier than intended, as this would necessitate a compensatory action at some point in the future – such as harvesting premature trees or a subsequent decrease in harvest levels.

271. The Commission considers although it is likely that there would be an increase in small woodlot harvests if log prices increased, as small woodlots do not require the same degree of infrastructure to facilitate harvesting as larger plantation forests. However, the fragmented nature and small size of woodlots means that it is unlikely than an expansion of harvest from small woodlots would be of sufficient magnitude to constrain the combined entity in the factual scenario.

#### Conclusion on Expansion through Early Harvest

272. The Commission considers that it is unlikely that large forestry operators, such as KT, Matariki and Crown Forestry, would be able to expand through early harvest of existing forests, because of the requirement for sophisticated harvest

infrastructure to increase harvest levels in the short-term, and the subsequent impact upon the ability to sustain projected harvest levels in the long-term.

273. The Commission considers that small woodlots would be able to expand through early harvest of existing forests, as small woodlots do not have the same requirement for sophisticated infrastructure; however, the fragmented nature and small size of woodlots leads the Commission to form the view that expansion through early harvest by small woodlots is unlikely to be of a significant magnitude to act as a constraint upon the combined entity in the factual scenario.

#### Expansion through Diversion from Export

274. The Applicant submitted that due to the significant differential between export pricing and local market prices, and the excess of supply over demand in New Zealand generally and specifically the CNI, it is likely that in response to any attempted increase in price by the merged entity existing competitors would divert export supply of local processing grade logs to New Zealand to defeat any such attempted price increase.
275. In Decision 426, the Commission considered that the merged entity would be constrained by the diversion of unpruned sawlogs destined for export back into the domestic market.
276. Most of the forestry operators that the Commission spoke to currently export unpruned sawlogs, with strong demand from Asia for industrial-grade unpruned sawlogs.
277. KT, Crown Forestry and Matariki export approximately [ ] % of their unpruned sawlog harvest. Hancock exports [ ] of its total harvest, and CHH [ ]. [ ] exports the least by proportion of its total harvest, primarily due to [ ].
278. There is a correlation between the delivered price of domestic logs and the FOB prices of export grades of logs<sup>64</sup>. KT advised the Commission that there is strong parity between export and domestic prices, and export prices have a significant influence on domestic prices in the unpruned sawlog markets.
279. Such a relationship indicates that, if domestic market conditions improved relative to export conditions, and this improvement was considered to be non-transitory (as might be the case if the merged entity gained a degree of market power as a result of the proposed acquisition), then there could be a diversion of export logs into the domestic market. Such export diversion could act as a constraint on the merged entity.
280. In terms of actual diversion of log volumes between export and the domestic market, MAF advised the Commission that such switching does occur. MAF estimated that around 30% of the total national annual harvest<sup>65</sup> is relatively

<sup>64</sup> This comparison was based on domestic and export prices sourced from the MAF website (quarterly data from the early 1990s), and involved a number of adjustments, including the removal of port-related charges from the export FOB price (to ensure a comparable pricing point), and an allowance for export risk. Correlation coefficients of between 0.69 and 0.88 were estimated for unpruned and pruned sawlogs, while for pulplogs, the correlation between export and domestic logs was lower (0.23). In addition, tests for causality (Granger causality testing) indicate that for pruned P2 and unpruned sawlogs, export log prices statistically cause domestic log prices (rather than the other way around).

<sup>65</sup> Total national annual harvest is estimated by MAF to be approximately 20m m<sup>3</sup> per year.

price sensitive, and noted that smaller forest owners often do not have ongoing relationships with particular domestic or export customers. Therefore, smaller forest owners would be more likely to send their logs, usually through log traders, into whichever market offered the best price at that point in time.

281. In terms of the volume of logs that could be diverted from export into the domestic market, industry participants advised the Commission that there is some constraint with respect of the importance of maintaining long-term relationships export customers. [ ] stated that they prefer to maintain at least some level of presence within each market, in order to maintain useful long-term relationships.
282. [ ] advised the Commission that it has a strategy of diversification: it sells one-third of its logs on the export market, one-third of its logs through long-term contracts and one-third of its logs on the domestic spot market. The Commission notes that over the last 18 months, [ ] volume of unpruned sawlogs sold on the export market has fluctuated between approximately [ ] % and [ ] % of its total harvest.
283. [ ]<sup>66</sup> advised the Commission that it has a more conservative strategy. It presently exports [ ] % of its unpruned sawlog harvest. However, it would be unlikely to divert logs into the domestic market, because of the risk that depriving foreign customers could damage long-term relationships. Equally, it would also be unlikely to divert logs away from the domestic market to take advantage of increased export prices because of the importance of maintaining its domestic long-term relationships.

#### Conclusion on Expansion through Diversion from Export

284. The Commission considers that there is sufficient evidence, in the form of fluctuating volumes of exported unpruned sawlogs, to suggest that it is likely that existing competitors, such as KT and Matariki, are likely expand to some degree through diversion from export in the factual scenario.

#### Merger Simulation

285. The results of the simulation run for unpruned sawlogs in the CNI indicate that the proposed acquisition may lead to an increase in unpruned log prices of 2.1% p.a. over 2006-2010; 2.7% p.a. over 2011-2015; and 3.1% p.a. over 2016-2020.
286. Merger simulation can provide a helpful guide in assessing the possible pricing impact of an acquisition. The Commission notes that the merger simulation is only one element of its analysis of the competition implications of the proposed acquisition. The merger simulation takes no account of qualitative factors that will typically be relevant, such as countervailing power of acquirers, or the scope for coordinated market power in the factual scenario. The Commission has considered these issues separately as part of this decision.
287. As discussed earlier in relation to the simulation of the pulplog markets, the forecast price increases for unpruned sawlogs can be moderated to the extent that “other” supply and imports represent disaggregated sources of supply. Both imports and small woodlots are among the smaller contributors of unpruned sawlog supply in the 2006-2010 time period. Small woodlots are not significant contributors of unpruned sawlog supply during the 2011-2015 and 2016-2020 periods.

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<sup>66</sup> [ ].

288. The modelling undertaken indicates that the upper bound of any price increase resulting from the proposed acquisition is likely to be less than approximately 3% in the CNI unpruned sawlog markets.

#### Conclusion on Merger Simulation

289. The Commission considers that the result of the merger simulation is consistent with the Commission's view regarding existing competition, that is, the combined entity would continue to face some degree of constraint from large forestry operators, such as KT, Matariki and Crown Forestry in the factual scenario.

#### *Conclusion on Existing Competition*

290. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry would likely provide a degree of constraint on the combined entity in the factual scenario. Small woodlots would also provide a degree of constraint on the combined entity in the factual scenario, although to a lesser extent because of their fragmented nature and variability in harvest.
291. Because of the requirement for sophisticated harvest infrastructure in the short term, and the subsequent impact upon the ability to sustain projected harvest levels in the long term, the Commission considers that it is unlikely that large forestry operators would be able to expand through early harvest of existing forests.
292. The Commission considers it is likely that small woodlots would be able to expand through early harvest of existing forests, as small woodlots do not have the same requirement for sophisticated infrastructure. However, the fragmented nature and small size of woodlots leads the Commission to form the view that expansion through early harvest by small woodlots is not likely to be of a significant magnitude to act as a constraint upon the combined entity in the factual scenario.
293. The Commission considers that there is sufficient evidence, in the form of fluctuating volumes of exported unpruned sawlogs, to suggest that it is likely that existing competitors, such as KT and Matariki, are likely to expand to some degree through diversion from export in the factual scenario.
294. The Commission considers that the result of the merger simulation is consistent with the Commission's view regarding existing competition, that is, the combined entity would continue to face some degree of constraint from large forestry operators, such as KT, Matariki and Crown Forestry in the factual scenario.
295. Accordingly, the Commission concludes that post-acquisition, the combined entity would be likely to face a degree of constraint from existing competition in the market for the production and supply of unpruned sawlogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

#### *Countervailing Power*

296. The Applicant submitted that CHH would purchase a significant volume of unpruned sawlogs in the CNI markets in the factual scenario, and that CHH would have a degree of countervailing power.



297. In Decisions 426 and 468, the Commission considered that the purchasers of unpruned sawlogs in the CNI were generally fragmented and therefore did not possess a significant degree of countervailing power.
298. CHH, Tachikawa and Red Stag are the three largest purchasers of unpruned sawlogs in the CNI markets. Their combined purchases make up [ ] of all unpruned sawlog purchases across each time period.
299. Post-acquisition, each of these sawmills will have long-term contracts for supply with the combined entity. [ ] advised the Commission that export prices are used as reference points in order to establish domestic prices during quarterly price negotiations; therefore providing a transparent pricing mechanism.
300. The Commission was advised by industry participants that in the event that parties cannot agree on a price, and third-party determination is called in, the price determination is based upon a survey of domestic prices, including spot market transactions. In general, sawmills will have a strategy of retaining a suite of different suppliers in order to diversify risk. This strategy enables the sawmill to be able to provide a range of transactions as evidence of prices paid for unpruned sawlogs in order to negotiate prices through third-party determination. The Commission is of the view that the ability of sawmills to retain a suite of suppliers will not be significantly impaired by the proposed acquisition, because of the surplus supply of unpruned sawlogs.
301. Red Stag advised the Commission that post-acquisition it will rely upon KT and the combined entity for some [ ] % of its unpruned sawlogs; however, its location meant that it can acquire some unpruned sawlogs from Pan Pac<sup>67</sup>, and it is also considering sourcing logs from [ ].
302. Smaller sawmills have advised the Commission that they have on occasion, exercised countervailing power through switching suppliers, and that this is unlikely to change in the factual scenario.
303. [ ] advised the Commission that it has previously switched suppliers when it [ ]  
[ ] was still able to increase the volume of logs it was purchasing from [ ]. It also sources [ ] % of its unpruned sawlogs from small woodlots.
304. Winstone presently sources unpruned sawlogs for its Tangiwai sawmill from forests located [ ] for logistical reasons. As discussed in the context of the pulplog markets, Winstone advised the Commission that it has the option of sourcing unpruned sawlogs from the SNI.

#### *Conclusion on Countervailing Power*

305. The Commission considers that acquirers of unpruned sawlogs would likely provide some degree of constraint on the combined entity, due to the excess supply of unpruned sawlogs in the CNI region.
306. Accordingly, the Commission concludes that post-acquisition, the combined entity would be likely to be constrained, to some degree, by acquirers of

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<sup>67</sup> Pan Pac uses back-loading to transport unpruned sawlogs to ensure that it is economical to move unpruned sawlogs into the CNI from its Hawke's Bay forest.

unpruned sawlogs in the market for the production and supply of unpruned sawlogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

#### *Unilateral Market Power*

307. As discussed in the context of the pulplog markets, a number of industry participants expressed concern that as a TIMO, Hancock has an incentive to “lock up” its forests, [ ].
308. In its assessment of the pulplog markets, the Commission formed the view that the combined entity is incentivised to continue harvesting, at least at its current harvest levels, [ ] in the factual scenario. In addition, the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest, [ ]. Furthermore, the combined entity is incentivised to continue harvesting and competing to dispose of its pulplogs in the factual scenario, due to the overall surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
309. The Commission considers that because the combined entity must keep harvesting pulplogs, it follows that it must also continue harvesting unpruned sawlogs, and for that matter, pruned sawlogs. That is, the inability of the combined entity to exercise unilateral market power in the pulplog markets has a flow-on effect to the unpruned sawlog markets.

#### *Conclusion on Unilateral Market Power*

310. The Commission considers that the necessity to continue harvesting pulplogs has a flow-on effect such that the combined entity is also incentivised to continue harvesting and competing to dispose of unpruned sawlogs in the factual scenario.
311. Accordingly, the Commission concludes that the scope for unilateral market power is unlikely to be enhanced by the proposed acquisition in the market for the production and supply of pulplogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

#### *Scope for Coordinated Behaviour*

312. Post-acquisition, the largest suppliers of pulplogs in the CNI region are the combined entity, KT, Matariki and Crown Forestry. As discussed in the context of the pulplog markets, the Commission considers that forestry operators that are currently deferring harvest, [ ], will not be able to continue this strategy on an ongoing basis, and post-acquisition, will be incentivised to continue harvesting and competing to dispose of their unpruned sawlogs.
313. The Commission considers that other competitors, [ ], are also incentivised to continue harvesting and competing to dispose of their unpruned sawlogs, as a function of the projected surplus supply of unpruned sawlogs.

314. The Commission is of the view that fringe competitors<sup>68</sup>, are also likely to act as an additional constraint on the ability of larger players to coordinate their behaviour.
315. For these reasons, the Commission is of the view that the scope for coordinated behaviour in the CNI unpruned sawlog markets is unlikely to be materially enhanced as a result of the proposed acquisition.

*Conclusion on the Scope for Coordinated Behaviour*

316. The Commission considers that forestry operators are incentivised to continue harvesting and competing to dispose of unpruned sawlogs in the factual scenario, because of the inability to hold back harvest for an ongoing period of time and the surplus of unpruned sawlog supply in the CNI region.
317. Furthermore, the Commission considers that the large number of fringe competitors also limits the scope for coordinated behaviour in the factual scenario.
318. Accordingly, the Commission concludes that the scope for coordinated behaviour is unlikely to be enhanced by the proposed acquisition in the market for the production and supply of unpruned sawlogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

**Conclusion on Unpruned Sawlog Markets**

319. The Commission considers that in the factual scenario, the combined entity will continue to face some degree of constraint from existing competitors, and that the result of the merger simulation is consistent with this view.
320. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry, are unlikely to expand through early harvest, because of the requirement for sophisticated harvest infrastructure, and the subsequent impact on the ability to sustain projected harvest levels.
321. Regarding small woodlots, the Commission considers that they would provide a comparatively lesser degree of constraint on the combined entity, because of their fragmented nature and variability in harvest. Consequently, although the Commission considers that small woodlots are likely to expand through early harvest, as they do not have the same infrastructure requirements, the Commission considers that expansion through early harvest is unlikely to be of a sufficient magnitude to act as a constraint on the combined entity.
322. The Commission considers that there is sufficient evidence, in the form of fluctuating volumes of exported unpruned sawlogs, to suggest that it is likely that existing competitors, such as KT and Matariki, are likely expand to some degree through diversion from export in the factual scenario.
323. Because of the excess supply of unpruned sawlogs in the CNI region, the Commission considers that acquirers of unpruned sawlogs are also likely to act as a constraint, to some degree, upon the combined entity.
324. The Commission considers that the scope for unilateral market power is unlikely to be enhanced in the factual scenario, combined entity's need to continue harvesting and competing to dispose of pulplogs has a flow-on effect,

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<sup>68</sup> Including harvest managers PF Olsen and NZFM, as well as small, independently owned and harvested woodlots. This also includes imports.

such that the combined entity is also incentivised to continue harvesting and competing to dispose of unpruned sawlogs in the factual scenario.

325. The Commission considers there is that it is unlikely the scope for coordinated market power will be enhanced in the factual scenario. The Commission considers that forestry operators are incentivised to continue harvesting and competing to dispose of unpruned sawlogs in the factual scenario, because of the inability to hold back harvest for an ongoing period of time and the surplus of unpruned sawlog supply in the CNI region. The large number of fringe competitors in the CNI unpruned sawlog markets place additional limitation upon the scope for coordinated behaviour post acquisition.
326. Accordingly, the Commission concludes that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening competition in the market for the production and supply of unpruned sawlogs in the CNI for the 2006-2010, 2011-2015 and 2016-2020 time periods.

### Pruned Sawlog Markets

#### *Existing Competition*

327. The Applicant submitted that the merged entity would continue to face competition from a number of existing competitors in the market for the supply of pruned sawlogs, including KT, Matariki, Winstone, Pan Pac and a number of small producers which collectively constitute a significant competitive presence.
328. The market shares in Table 11 relate to the production and supply of pruned sawlogs in the CNI, Auckland, and Hawkes Bay regions.

**Table 11: Future Wood Flows for Pruned Sawlogs in CNI, Auckland and Hawke's Bay**

Forest Owner/Manager	Wood flow: Average values per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Hancock	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<i>Combined entity</i>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Pan Pac	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI, Auckland and Hawke's Bay supply</b>	[ ]	<b>100</b>	[ ]	<b>100</b>	[ ]	<b>100</b>

Source: Industry Participants

329. The combined entity would have the largest volume of wood flow in this market across all time periods; its greatest competitor is KT.
330. Small woodlots contribute at least [ ] of the pruned sawlog supply in the CNI, Auckland and Hawke's Bay region. While a number of the forest owners in the CNI, Auckland and Hawke's Bay advised the Commission that they consider small woodlots to be competitors in the pruned sawlog markets, the level of constraint provided by these small woodlots is somewhat mitigated by the inconsistency in supply and quality of their logs.

331. [ ] advised the Commission that the quality of the wood is especially important for pruned sawlogs as it is an appearance grade wood, and needs to be free of knots and other blemishes in order to be manufactured into end-products such as high quality joinery, furniture and mouldings. Although woodlots that are managed by a professional harvesting contractor tend to produce an acceptable quality of pruned sawlog, the quality of pruned sawlogs harvested from small, independent woodlots tends to be questionable.
332. For these reasons, the Commission considers that the fragmented nature of small woodlots and the variability in quality (and supply, as discussed in context of the pulplog and unpruned sawlog markets) means that small woodlots are likely to present a lesser degree of constraint than their larger counterparts, such as KT and Matariki.
333. As discussed in the pulplog and unpruned sawlog markets, the Commission considers that, for the purpose of assessing the competition implications of the current application, it is only residual wood flows that could be controlled or influenced by the merged entity. That is, wood flows that are committed to long-term contracts are not contestable in the pruned sawlog market.
334. The market shares for residual wood flows for the pruned markets are set out in Table 12 (Appendix 1).
335. Table 12 indicates that in the 2006-2010 time period Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %. This falls within the Commission's safe harbour guidelines.
336. In the 2011-2015 time period Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration ratio would be [ ] %. This is inside the Commission's safe harbour guidelines.
337. In the 2016-2020 time period Hancock would have a market share of [ ] % with a three-firm concentration ratio of [ ] %. Post-acquisition, the combined entity would have a market share of [ ] % and the three-firm concentration would be [ ] %. This falls within the Commission's safe harbour guidelines.
338. The combined entity contributes the greatest volume of pruned sawlogs in the CNI, Auckland and Hawke's Bay region across all time periods. Its next largest competitor in the 2006-2010 and 2011-2015 time periods is [ ], and to a lesser extent, [ ].
339. As discussed previously, [ ]  
[ ]. Subsequently, [ ] is the combined entity's greatest competitors during the 2016-2020 time period.
340. As with the pulplog and unpruned sawlog markets, the Commission considers that, for the purpose of assessing the competition implications of the proposed acquisition, a diligent assessment of the pruned sawlog markets should consider demand requirements.

341. Few sawmills that process pruned sawlogs in the CNI, Auckland and Hawke's Bay region have long-term contracts for pruned sawlogs<sup>69</sup>.
342. Table 13 shows the residual demand volumes of pruned sawlogs in the CNI Auckland/Hawke's Bay across all time periods.

**Table 13: Residual Demand for Pruned Sawlogs in CNI, Auckland and Hawke's Bay**

Sawmill	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Tenon	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
Combined Entity	[ ]		[ ]		[ ]	
KT	[ ]		[ ]		[ ]	
<b>Tenon Residual Demand</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Mamaku	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
<b>Mamaku Residual Demand</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]		[ ]		[ ]	
Less contracted supply	[ ] <sup>70</sup>		[ ]		[ ]	
Combined Entity	[ ]		[ ]		[ ]	
<b>CHH Residual Demand</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Claymark	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
<b>Claymark Residual Demand</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Thames Timber	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
Combined Entity	[ ]		[ ]		[ ]	
Matariki	[ ]		[ ]		[ ]	
<b>Thames Timber Residual Demand</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Other Residual Demand</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Total CNI, Auckland and Hawke's Bay Demand	[ ]		[ ]		[ ]	
<b>Total CNI, Auckland and Hawke's Bay Residual Demand</b>	[ ]	<b>100%</b>	[ ]	<b>100%</b>	[ ]	<b>100%</b>

Source: Industry Participants

343. Tenon is the largest purchaser of pruned sawlogs in the CNI pruned sawlog markets. It sources approximately [ ] of its pruned sawlogs through long-term contracts with Hancock and KT. The remainder of its logs are sourced from other major forestry companies and harvest contractors in the CNI region. Claymark is the next largest purchaser of pruned sawlogs in the CNI; however it has no long-term supply contracts.
344. Smaller pruned sawlog sawmills include Mamaku, Thames Timber, Kiwi Lumber, Pacific Pine Industries, Rotorua Sawmill and Waitete Sawmill.
345. Table 14 shows the relationship between residual demand and supply for the CNI, Auckland and Hawke's Bay pruned sawlog markets.

<sup>69</sup> Generally, sawmills that have long-term contracts tend to process significant volumes of pruned sawlogs. Smaller sawmills advised the Commission that price and volume negotiations tend to be based on long-term relationships with the forest operators.

<sup>70</sup> [

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**Table 14: Supply and Demand for Pruned Sawlogs in CNI, Auckland and Hawke's Bay**

	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
<b>Residual Supply</b>						
<b>Forest Owner/Manager</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>
Combined Entity	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Pan Pac	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI, Auckland and Hawke's Bay Residual Supply</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>
<b>Residual Demand</b>						
<b>Sawmill</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>	<b>(000 m<sup>3</sup>)</b>	<b>%</b>
Tenon	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Mamaku	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Claymark	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Thames Timber	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total CNI, Auckland and Hawke's Bay Residual Demand</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>
<b>Total CNI, Auckland and Hawke's Bay Excess Residual Supply</b>	<b>[ ]</b>		<b>[ ]</b>		<b>[ ]</b>	

Source: Industry Participants

346. Table 14 shows that for all three periods, residual supply available from forest owners will exceed residual demand from sawmills, such that there would be a surplus in pruned sawlog supply independent of the combined entity's residual supply volumes. The Commission considers that purchasers of pruned sawlogs would not be dependent on the combined entity for supply in the CNI, Auckland and Hawke's Bay pruned sawlog markets.

#### Expansion through Early Harvest

347. As discussed previously, in the context of the pulplog and unpruned sawlog markets, the Commission considers that it is unlikely that larger forestry owners would substantially alter their harvest strategies such that harvest was increased in the short-term, because of the sophisticated infrastructure that is required in order to increase harvest operations. In addition, the Commission considers that in the long-term view, large forestry operators are unlikely to deviate from their strategic harvest plan and accelerate harvest levels earlier than intended, as this would necessitate a compensatory action at some point in the future – such as harvesting premature trees or a subsequent decrease in harvest levels.

348. The Commission considers although it is likely that there would be an increase in small woodlot harvests if log prices increased, as small woodlots do not require the same degree of infrastructure to facilitate harvesting as larger plantation forests. However, the fragmented nature and small size of woodlots leads the Commission to form the view that it is unlikely that early harvest

would provide additional constraint, to any significant degree, on the combined entity in the factual scenario.

#### Conclusion on Expansion through Early Harvest

349. The Commission considers that it is unlikely that large forestry operators, such as KT, Matariki and Crown Forestry, would be able to expand through early harvest of existing forests, because of the requirement for sophisticated harvest infrastructure to increase harvest levels in the short-term, and the subsequent impact upon the ability to sustain projected harvest levels in the long-term.
350. The Commission considers that it is likely that small woodlots would be able to expand through early harvest of existing forests, as small woodlots do not have the same requirement for sophisticated infrastructure. However, the fragmented nature and small size of woodlots leads the Commission to form the view that expansion through early harvest by small woodlots is not likely to be of a significant magnitude to act as a constraint upon the combined entity in the factual scenario.

#### Expansion through Diversion from Export

351. Presently, negligible volumes of pruned sawlogs are exported<sup>71</sup>. Industry participants advised that pruned sawlogs are valuable because they are generally manufactured into appearance-grade end-products, such as furniture and panelling. It is not favourable to export pruned sawlogs because of the risk that the logs can be devalued by handling and transit conditions during the long sail to New Zealand's largest export markets in the northern hemisphere. Furthermore, the value of pruned sawlogs is also affected by sap-stain, which sets in after about two days.
352. The Commission also notes that there is not a significant demand for valuable sawlogs overseas. Presently, the largest demand is for industrial-grade unpruned sawlogs in Asia.

#### Conclusion on Diversion from Export

353. The Commission considers that, based on current pruned sawlog export levels, it is unlikely that existing competitors would expand through diversion from export in the factual scenario.

#### Merger Simulation

354. The results of the simulations conducted by the Commission in respect of the pruned sawlog market indicate that the proposed acquisition may lead to an increase in pruned sawlog prices of 1.5% p.a. during 2006-2010; 2.2% p.a. during 2011-2015; and 1.5% p.a. in the 2016-2020 time period.
355. Merger simulation can provide a helpful guide in assessing the possible pricing impact of an acquisition. The Commission notes that the merger simulation is only one element of its analysis of the competition implications of the proposed acquisition. The merger simulation takes no account of qualitative factors that will typically be relevant, such as countervailing power of acquirers, or the scope for coordinated market power in the factual scenario. The Commission has considered these issues separately as part of this decision.

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<sup>71</sup> The Commission is aware of examples where small volumes of pruned sawlogs have been exported sporadically: [ ] % of [ ] total harvest of pruned sawlogs has been exported in the last 18 months.



356. Furthermore, the Commission notes that supply from small woodlots (accounting for [ ] % - [ ] % of residual supply) is likely to be fragmented<sup>72</sup>. The merger simulation, which treated alternative sources of supply, such as small woodlots, as single entities. For this reason, it is likely that the simulation has produced results that have overstated the degree of concentration, and therefore overstated any potential increase in pruned sawlog prices.
357. The modelling undertaken indicates that the upper bound of any price increase resulting from the proposed acquisition is likely to be less than approximately 2% in the CNI, Auckland and Hawke's Bay pruned sawlog markets.

#### Conclusion on Merger Simulation

358. The Commission considers that the result of the merger simulation is consistent with the Commission's view regarding existing competition, that is, the combined entity would continue to face some degree of constraint from large forestry operators, such as KT, Matariki and Crown Forestry, as well as small woodlots in the factual scenario.

#### *Conclusion on Existing Competition*

359. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry would likely provide a degree of constraint on the combined entity in the factual scenario. Small woodlots would also provide a degree of constraint on the combined entity in the factual scenario, although to a lesser extent because of the variation in quality, as well as their fragmented nature and variability in harvest.
360. Because of the requirement for sophisticated harvest infrastructure in the short term, and the subsequent impact upon the ability to sustain projected harvest levels in the long term, the Commission considers that it is unlikely that large forestry operators would be able to expand through early harvest of existing forests in the factual scenario.
361. The Commission considers it is likely that small woodlots would be able to expand through early harvest of existing forests, as small woodlots do not have the same requirement for sophisticated infrastructure. However, the fragmented nature and small size of woodlots leads the Commission to form the view that expansion through early harvest by small woodlots is not likely to be of a significant magnitude to act as a constraint upon the combined entity in the factual scenario.
362. Based on current pruned sawlog export levels, the Commission considers that it is unlikely that existing competitors would expand through diversion from export in the factual scenario.
363. The Commission considers that the result of the merger simulation is consistent with the Commission's view regarding existing competition, that is, the combined entity would continue to face some degree of constraint from large forestry operators, such as KT, Matariki and Crown Forestry, as well as small woodlots in the factual scenario.
364. Accordingly, the Commission concludes that post-acquisition, the combined entity would be likely to face a degree of constraint from existing competition

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<sup>72</sup> For example, according to MAF statistics, 98% of forest owners in the CNI (1,833 out of a total of 1,853) own less than 1,000 hectares, but collectively account for only 13% of the CNI forested area. MAF, *National Exotic Forest Description*, 2005, Table 10.5 and Table 10.6.

in the market for the production and supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay for the 2006-2010, 2011-2015 and 2016-2020 time periods.

*Countervailing Power*

365. The Applicant submitted that Tenon is likely to purchase a significant volume of pruned sawlogs from the merged entity, and as such, it will have a degree of countervailing power. In addition, the Applicant submitted that the merged entity would be required to sell all its logs to third parties, as it would not have its own downstream processing operation.
366. The main purchasers of pruned sawlogs in CNI, Auckland and Hawke's Bay region are Tenon, Thames Timber and Claymark, which combined, purchase approximately [ ] of the residual supply of pruned sawlogs.
367. Thames Timber and Tenon have long-term contracts for supply with the combined entity. Additionally, CHH will have a long-term contract for supply with the combined entity, as this contract is contingent upon the sale of CHH's forestry assets.
368. [ ] advised the Commission that export prices of the end-products of pruned sawlogs are referenced when ascertaining the domestic price of the logs during quarterly price negotiations, and was able to switch to an alternative source of pruned sawlogs.
369. As in the context of the unpruned sawlog markets, industry participants advised the Commission that in the event that parties cannot agree on a price, and third-party determination is called in, the price determination is based upon a survey of domestic prices, including spot market transactions. In general, sawmills will have a strategy of retaining a suite of different suppliers in order to diversify risk. This strategy enables the sawmills to provide a range of transactions as evidence of prices paid for pruned sawlogs in order to negotiate prices through third-party determination.
370. [ ] advised the Commission that it had recently stopped buying pruned sawlogs from [ ] due to a disagreement over price and concerns about the quality of pruned sawlogs.
371. Post-acquisition, no sawmill will purchase more than [ ] % of their unpruned log supply from the combined entity. The Commission considers that the ability for acquirers to retain a suite of suppliers is unlikely to change, to a significant extent, in the factual scenario because of the surplus of pruned sawlog supply in the CNI, Auckland and Hawke's Bay region.

*Conclusion on Countervailing Power*

372. The Commission considers that acquirers of pruned sawlogs, such as Mamaku, Thames Timber and Claymark would likely provide a degree of constraint on the combined entity in the factual scenario, because of the excess supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay region.
373. Accordingly, the Commission concludes that post-acquisition, the combined entity would be likely to be constrained, to some extent, by acquirers of unpruned sawlogs in the market for the production and supply of unpruned sawlogs in the CNI, Auckland and Hawke's Bay for the 2006-2010, 2011-2015 and 2016-2020 time periods.

*Unilateral Market Power*

374. As discussed in the context of the pulplog markets, a number of industry participants expressed concern that as a TIMO, Hancock has an incentive to “lock up” its forests, [ ].
375. In its assessment of the pulplog markets, the Commission formed the view that the combined entity is incentivised to continue harvesting, at least at its current harvest levels, [ ] in the factual scenario. In addition, the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest, [ ]. Furthermore, the combined entity is incentivised to continue harvesting and competing to dispose of its pulplogs in the factual scenario, due to the overall surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
376. The Commission considers that because the combined entity must keep harvesting pulplogs, it follows that it must also continue harvesting unpruned sawlogs, and for that matter, pruned sawlogs. That is, the inability of the combined entity to exercise unilateral market power in the pulplog markets has a flow-on effect to the pruned sawlog markets.

*Conclusion on Unilateral Market Power*

377. The Commission considers that the necessity to continue harvesting pulplogs has a flow-on effect such that the combined entity is also incentivised to continue harvesting and competing to dispose of pruned sawlogs in the factual scenario.
378. Accordingly, the Commission concludes that the scope for unilateral market power is unlikely to be enhanced by the proposed acquisition in the market for the production and supply of pruned sawlogs in the CNI, Auckland and Hawke’s Bay region for the 2006-2010, 2011-2015 and 2016-2020 time periods.

*Scope for Coordinated Behaviour*

379. Post-acquisition, the largest suppliers of pulplogs in the CNI region are the combined entity, KT, Matariki and Crown Forestry. As discussed in the context of the pulplog markets, the Commission considers that forestry operators that are currently deferring harvest, [ ], will not be able to continue this strategy on an ongoing basis, and post-acquisition, will be incentivised to continue harvesting and competing to dispose of their unpruned sawlogs.
380. The Commission considers that other competitors, [ ], are also incentivised to continue harvesting and competing to dispose of their unpruned sawlogs, as a function of the projected surplus supply of unpruned sawlogs.

381. The Commission is of the view that fringe competitors<sup>73</sup>, are also likely to act as an additional constraint on the ability of larger players to coordinate their behaviour.
382. For these reasons, the Commission is of the view that the scope for coordinated behaviour in the CNI, Auckland and Hawke's Bay pruned sawlog markets is unlikely to be materially enhanced as a result of the proposed acquisition.

*Conclusion on the Scope for Coordinated Behaviour*

383. The Commission considers that forestry operators are incentivised to continue harvesting and competing to dispose of pruned sawlogs in the factual scenario, because of the inability to hold back harvest for an ongoing period of time and the surplus of pruned sawlog supply in the CNI, Auckland and Hawke's Bay region.
384. Furthermore, the Commission considers that the large number of fringe competitors also limits the scope for coordinated behaviour in the factual scenario.
385. Accordingly, the Commission concludes that the scope for coordinated behaviour is unlikely to be enhanced by the proposed acquisition in the market for the production and supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay for the 2006-2010, 2011-2015 and 2016-2020 time periods.

**Conclusion on Pruned Sawlog Markets**

386. The Commission considers that in the factual scenario, the combined entity will continue to face some degree of constraint from existing competitors, and that the result of the merger simulation is consistent with this view.
387. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry, are unlikely to expand through early harvest, because of the requirement for sophisticated harvest infrastructure, and the subsequent impact on the ability to sustain projected harvest levels.
388. Regarding small woodlots, the Commission considers that they would provide a comparatively lesser degree of constraint on the combined entity, because of their fragmented nature and variability in harvest. Consequently, although the Commission considers that small woodlots are likely to expand through early harvest, as they do not have the same infrastructure requirements, the Commission considers that expansion through early harvest is unlikely to be of a sufficient magnitude to act as a constraint on the combined entity.
389. Based on current pruned sawlog export levels, the Commission considers that it is unlikely that existing competitors would expand through diversion from export in the factual scenario.
390. Because of the excess supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay region, the Commission considers that acquirers of pruned sawlogs are also likely to act as a constraint, to some degree, upon the combined entity.
391. The Commission considers that the necessity to continue harvesting pulplogs has a flow-on effect such that the combined entity is also incentivised to

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<sup>73</sup> Including harvest managers PF Olsen and NZFM, as well as small, independently owned and harvested woodlots. This also includes imports.

continue harvesting and competing to dispose of pruned sawlogs in the factual scenario.

392. The Commission considers there is that it is unlikely the scope for coordinated market power will be enhanced in the factual scenario. The Commission considers that forestry operators are incentivised to continue harvesting and competing to dispose of pruned sawlogs in the factual scenario, because of the inability to hold back harvest for an ongoing period of time and the surplus of pruned sawlog supply in the CNI, Auckland and Hawke's Bay region. The large number of fringe competitors in the CNI, Auckland and Hawke's Bay pruned sawlog markets place additional limitation upon the scope for coordinated behaviour post acquisition.
393. Accordingly, the Commission concludes that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening competition in the market for the production and supply of pruned sawlogs in the CNI, Auckland and Hawke's Bay region for the 2006-2010, 2011-2015 and 2016-2020 time periods.

## CONCLUSION

394. The Commission has considered the probable nature and extent of competition that would exist, subsequent to the proposed acquisition, in:
- the markets for the production and supply of pulplogs in the CNI, for the periods 2006-2010, 2011-2015 and 2016-2020;
  - the markets for the production and supply of unpruned sawlogs in the, CNI for the periods 2006-2010, 2011-2015 and 2016-2020; and
  - the markets for the production and supply of pruned sawlogs in the, CNI, Auckland and Hawke's Bay, for the periods 2006-2010, 2011-2015 and 2016-2020.
395. The Commission considers that the counterfactual is the acquisition of the CHH forestry assets by a third party that does not presently have a major interest in New Zealand forestry
396. The Commission considers that in the factual scenario, the combined entity will continue to face some degree of constraint from existing competitors in each of the relevant markets. Merger simulations undertaken by the Commission have produced results that are consistent with this view.
397. The Commission considers that large forestry operators, such as KT, Matariki and Crown Forestry, are unlikely to expand through early harvest with respect to any of the relevant markets, because of the requirement for sophisticated harvest infrastructure, and the subsequent impact on the ability to sustain projected harvest levels.
398. Regarding small woodlots, the Commission considers that they would provide a comparatively lesser degree of constraint on the combined entity, because of their fragmented nature, variability in harvest, and in the context of the pruned sawlog markets, the inconsistency in log quality. Consequently, although the Commission considers that small woodlots are likely to expand through early harvest, as they do not have the same infrastructure requirements, the Commission considers that expansion through early harvest is unlikely to be of

a sufficient magnitude to act as a constraint on the combined entity in the relevant markets.

399. Based on current pulplog and pruned sawlog export levels, the Commission considers that it is unlikely that existing competitors would expand through diversion from export in the factual scenario.
400. However, the Commission considers that there is sufficient evidence, in the form of fluctuating volumes of exported unpruned sawlogs, to suggest that it is likely that existing competitors, such as KT and Matariki, are likely to expand to some degree through diversion from export in the unpruned sawlog markets.
401. Because of the excess supply in each of the relevant markets, and in the case of the pulplog markets, the limited number of outlets for these logs, the Commission considers that acquirers are also likely to act as a constraint, to some degree, upon the combined entity in the factual scenario.
402. The Commission considers that the scope for unilateral market power is unlikely to be enhanced in the factual scenario in the pulplog markets, because the combined entity is incentivised to continue harvesting, at least at its current harvest levels,  
[  
]. In addition, the Commission considers that the combined entity is unlikely to reduce the volume of pulplogs sold on the spot market, by holding back harvest,  
[  
].  
Furthermore, the Commission considers that the combined entity is incentivised to continue harvesting and competing to dispose of its pulplogs in the factual scenario, due to the overall surplus supply of pulplogs, and the limited number of pulplog outlets in the CNI region.
403. The Commission considers that the scope for unilateral market power is unlikely to be enhanced in the factual scenario in the unpruned sawlog and pruned sawlog markets, as the necessity to continue harvesting pulplogs has a flow-on effect such that the combined entity is also incentivised to continue harvesting and competing to dispose of pruned sawlogs and unpruned sawlogs.
404. With respect to the scope for coordinated behaviour in the factual scenario, the Commission considers that the surplus of pulplogs, pruned sawlogs and unpruned sawlogs in each of the relevant markets creates an incentive for forestry operators to continue harvesting and competing to dispose of their pulplogs, pruned sawlogs and unpruned sawlogs. The large number of fringe competitors, in the form of small woodlots, in each of the relevant markets places additional limitation upon the scope for coordinated behaviour in the factual scenario.
405. The Commission is therefore satisfied that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening competition in any market.

**DETERMINATION ON NOTICE OF CLEARANCE**

406. Pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Hancock Natural Resource Group of:
- a) all of the shares in four Carter Holt Harvey Limited subsidiaries, namely, NZ Forest Products Limited, AHI Group Limited, Carter Holt Harvey Equities (No 12) Limited and Carter Holt Harvey Forest Holdings Limited (CHH Subsidiaries). The CHH Subsidiaries hold assets (either directly or through further subsidiaries) of the nature described in the sub-paragraph below; and
  - b) forestry assets in Northland and Auckland, the CNI and Nelson (including freehold property, non-freehold land interests, the standing timber on that land, plant and equipment, business contracts, licences and consents) not owned by the CHH Subsidiaries but owned by other companies in the CHH group of companies.

Dated this 27<sup>th</sup> day of September 2006

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Paula Rebstock  
Chair  
Commerce Commission

## APPENDIX 1

Table 4: Future Residual Wood Flows for Pulplogs in the CNI

Forest Owner/Manager	Wood flow: Average volume per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Hancock	[ ]		[ ]		[ ]	
Less contracted supply Tasman	[ ]		[ ]		[ ]	
<b>Hancock Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]		[ ]		[ ]	
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
<b>CHH Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Combined Entity	[ ]		[ ]		[ ]	
Less contracted supply [ ] <sup>74</sup>	[ ]		[ ]		[ ]	
Tasman	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Combined Entity Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]		[ ]		[ ]	
Less contracted supply Norske Skog	[ ]		[ ]		[ ]	
CHH	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>KT Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]		[ ]		[ ]	
Less contracted supply CHH	[ ]		[ ]		[ ]	
SCA Hygiene	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Matariki Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Crown Forestry Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>NZFM Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone	[ ]		[ ]		[ ]	
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Winstone Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other Residual Supply	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
<b>Total Imports</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Total CNI Supply	[ ]		[ ]		[ ]	
<b>Total CNI Residual Supply</b>	[ ]	100%	[ ]	100%	[ ]	100%

Source: Industry participants

74 [

].



**Table 8: Future Residual Wood Flows for Unpruned Sawlogs in the CNI**

Forest Owner/Manager	Wood flow: Average volume per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Hancock	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply CHH	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Hancock Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
CHH	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply Tachikawa	[ ]		[ ]		[ ]	
Red Stag	[ ]		[ ]		[ ]	
Lakesawn	[ ]		[ ]		[ ]	
Donnelly	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>CHH Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Combined Entity	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply [ ] <sup>75</sup>	[ ]		[ ]		[ ]	
CHH	[ ]		[ ]		[ ]	
Tachikawa	[ ]		[ ]		[ ]	
Red Stag	[ ]		[ ]		[ ]	
Lakesawn	[ ]		[ ]		[ ]	
Donnelly	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Combined Entity Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
KT	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply CHH	[ ]		[ ]		[ ]	
Red Stag	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>KT Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Matariki	[ ]	[ ]%	[ ]		[ ]	
Less contracted supply CHH	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Matariki Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Crown Forestry	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Crown Forestry Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
NZFM	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less contracted supply	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>NZFM Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Winstone	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Winstone Residual Supply</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>	<b>[ ]</b>	<b>[ ]%</b>
Other Residual Supply	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Total Imports	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Total CNI Supply	[ ]		[ ]		[ ]	
<b>Total CNI Residual Supply</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>	<b>[ ]</b>	<b>100%</b>

Source: Industry participants

Table 12: Future Residual Wood Flows for Pruned Sawlogs in the CNI

Forest Owner/Manager	Wood flow: Average volumes per year					
	2006-2010		2011-2015		2016-2020	
	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%	(000 m <sup>3</sup> )	%
Hancock	[ ]		[ ]		[ ]	
Less contracted supply Tenon	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Hancock Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
CHH	[ ]		[ ]		[ ]	
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply Pacific Pine	[ ]		[ ]		[ ]	
Thames Timber	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>CHH Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Combined Entity	[ ]		[ ]		[ ]	
Less contracted supply [ ] <sup>76</sup>	[ ]		[ ]		[ ]	
Pacific Pine	[ ]		[ ]		[ ]	
Thames Timber	[ ]		[ ]		[ ]	
Tenon	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>Combined Entity Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
KT	[ ]		[ ]		[ ]	
Less contracted supply Tenon	[ ]		[ ]		[ ]	
CHH	[ ]		[ ]		[ ]	
Less exports	[ ]		[ ]		[ ]	
<b>KT Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Matariki	[ ]		[ ]		[ ]	
Less contracted supply Thames Timber	[ ]					
Less exports						
<b>Matariki Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Crown Forestry	[ ]		[ ]		[ ]	
Less contracted supply						
Less exports						
<b>Crown Forestry Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Pan Pac	[ ]		[ ]		[ ]	
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply						
Less exports						
<b>Pan Pac Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
NZFM	[ ]		[ ]		[ ]	
Less contracted supply						
Less exports						
<b>NZFM Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Winstone	[ ]		[ ]		[ ]	
Less internal demand	[ ]		[ ]		[ ]	
Less contracted supply						
Less exports						
<b>Winstone Residual Supply</b>	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Other Residual Supply	[ ]	[ ]%	[ ]	[ ]%	[ ]	[ ]%
Imports	[ ]		[ ]		[ ]	
Total CNI, Auckland and Hawke's Bay Supply	[ ]		[ ]		[ ]	
<b>Total Residual Supply</b>	[ ]	100%	[ ]	100%	[ ]	100%

Source: Industry participants