Industry Submission to Forestry Tasmania re 2010 Benchmark

Submitted by the Forest Industries Association of Tasmania and the Tasmanian Country Sawmillers Federation.

14th May 2004

Re: Effect of achieving the Tasmania -Together Benchmark "To Stop Clearfelling of Old Growth Forests by 2010"

EXECUTIVE SUMMARY

The forest industry has given a high priority to evaluating alternatives to clearfelling old growth forests during the State Government initiated review process with the objective of finding an acceptable alternative silviculture. After comparing the alternative silvicultures on a range of indices, industry has strongly come to the view that clearfelling remains the best form of silviculture to apply in wet eucalypt forests and it should continue. Implementing a policy that stops clearfelling of old growth forests by 2010 will have a disastrous effect on the overall forest industry and the many Tasmanians directly and indirectly benefiting from the industry. Specific concerns are: -

- **Safety of Forest Workers**.

  In tall wet eucalypt forests, detached branches (widow makers) suspended in the crown of standing trees as a result of a harvested tree brushing against retained stems, form a major risk to forest workers. The alternative forms of silviculture (aggregated retention, variable retention and small group selection) all increase the risk of accident to forest workers by leaving standing trees, which will at some point contain suspended branches, within or along the edge of the coupe. The alternative silvicultural treatments will have an effect of

increasing the total length of the coupe boundary, thus creating an increased edge effect that will potentially be affected by hung up branches. The recent legal case (Coote vs AG Padgett and Forestry Tasmania 2004) involved an injury to Mr Coote obtained whilst selectively harvesting wet eucalypt forest and is a recent example of the concern that we raise.

]

We believe all of the alternative forms of silviculture discussed in the Forestry Tasmania Report pose an unacceptable increase in the hazard to forest workers and that this factor alone constitutes a compelling reason to reject all of these alternatives. We firmly believe that any compromise to worker safety is unacceptable.

- **Decreased veneer log and sawlog quality**

  Alternative silvicultures defer the initial harvest of the standing coupe volume by at least 30%, which will likely be replaced by an equivalent amount of mature, regrowth or in time plantation forest. These forest types will generally produce smaller diameter logs and will result in a 17% reduction in the supply of large, higher quality logs (Category 1 & 3 sawlogs greater than 84cm diameter class) to industry. The supply of smaller logs will increase the cost of production by 6.2% and decrease average product sales revenue by 6.5% (Farley 2004). In combination this would result in a reduction in margin by 52%.

  Whilst the analysis assumes businesses will absorb these changes and survive, in reality a number of firms would become unviable and go out of business, This would have the effect of dramatically increasing the loss of employment. The effect would be felt not only by major sawmillers but also by regional country sawmillers and furniture manufacturers that have developed niche markets relying on high quality Tasoak. These manufacturers would lose their competitive edge if forced to use imported timbers. As many of these processing facilities are located in regional areas they are a major component of the regional infrastructure and the closure of the mills will have a devastating effect for many small rural communities in the State.

The maintenance of the supply of large high quality sawlog is essential to sawmill profitability and the product supplied from these logs for remanufacture is essential for the viability of the Tasmanian furniture, cabinet making and joinery industries;

- **Increase the cost of raw materials**

  Aggregated retention will result in an increase in the number of coupes that will be required to be assessed and planned thereby increasing the roading and harvesting costs which is estimated will increase the delivered cost of logs by 12%;

- **Loss of employment**

  The application of aggregated retention will result in Tasmanian job losses of 1242 directly within the forest industry given a 20% reduction in sales value (ref Farley 2004);

- **Decreased health and vitality of the forest**

  The alternative forms of silviculture will reduce the abundance and vigour of regrowth unless the forest floor can be adequately prepared. It will be very difficult, if not impossible, to achieve the current standard of site preparation and in any case there will be productivity losses associated with additional length of coupe boundaries due to inadequate seed bed preparation and increased shading effect.

  It has been estimated that this will result in a decrease of 10% of current sustainable growth.

- **Industry shifts from high-value to commodity**

  An alternative silvicultural method will involve the need to establish fast growing plantations to replace the loss in native forest productivity. Small native forest regrowth logs or plantation logs will not yield the larger dimension logs required to produce the larger clear boards required by the market. These logs will produce smaller dimension timber suitable for a range of glued or laminated products that compete in the commodity end of the market rather than the higher value market segment;

- **Unproven plantation feedstock;**

  The two hardwood species grown for plantation in Tasmania are *Eucalyptus globulus* and *Eucalyptus.nitens*. In their native forest form, neither of these two species are preferred for board or veneer production. The existing plantation estate in Tasmania are too young to evaluate for suitability as a high quality source of raw material and any reliance on them for this purpose will be little more than a 'stab in the dark'.

- **Industry investment security**

  Tasmania's Regional Forest Agreement has provided the Tasmanian forest industry with the security to invest $940 million during the first 6 years of its' term. This flow of investment will stop if the security of the RFA is lost through increased sovereign risk.

Industry strongly urges the government to continue to allow the harvest of old growth timber using the clearfell, burn and sow silviculture for the aforementioned reasons. We realise this means the Tasmanian-Together benchmark will not be achieved but believe it was established without an understanding of the full adverse consequences to the Tasmanian forests and community. We urge the Government to be guided in its decision making by good science along with sound economic analysis and not by highly emotive statements that rely on rhetoric and aesthetics as their only foundation.

The RFA must be honoured in full and Tasmania's forest industry should be allowed to grow and prosper to provide long-term benefits to the Tasmanian community.

In our response we have determined that the dispersed retention and the SGS silvicultural methods are simply not worthy of detailed analysis on any reasonable indicator and we have therefore concentrated our analysis on comparisons with the aggregated retention model as outlined in the Forestry Tasmania Issues Paper – Alternatives to Clearfell Silviculture in Tasmania's Old Growth Forests (April 2004).

OVERVIEW OF FIAT/TCSF POSITION

1) Industry believed the Regional Forest Agreement had delivered security.

Tasmania's forest processing industry strongly believes that both the State and Federal Governments should adhere to the outcomes of their Tasmanian Regional Forest Agreement 1997 (RFA). The key outcomes to the industry from that agreement were:

(a) a growth plan with a supply of greater than 350,000m^3 per annum of Category 1 & 3 sawlogs; (This volume of sawlog included a specific component of 170,000m^3 of mature/old growth veneer and sawlog per annum; This type of forest also yields most of the Category 2 & 8 sawlog that underwrites the profitability of the majority of country sawmillers in Tasmania.)

(b) acceptable, predictable log cost structure for a known quality of log; and

(c) secure supply of 350,000 m^3 to 2017 beyond which the sustainable volume would be reduced to 300,000m^3 per annum comprised of less mature/oldgrowth and increased quantities of regrowth and plantation sawlog.

The confidence of the industry will be severely undermined by an unacceptable increase in sovereign risk that would be inherent in any change to the supply arrangements that were an integral component of the RFA and the Forestry Growth Plan upon which the industry believed it had the right to rely in making its investment decisions.

It is our strongest possible position that the Regional Forest Agreement between the State and Federal Governments must be permitted to run its course to fulfil the reasonable expectations of the industry.

2) Industry Investment

Over the first six years of the RFA, FIAT member Companies have invested in the future based upon the certainty of the RFA. These investments include $138 million in infrastructure, plant and equipment to upgrade existing facilities to process the guaranteed quality and quantity of log.

Greenfield investment has also taken place with more under consideration. To date Neville Smith Timber Industries has invested in a new sawmill south of Hobart and together with Forest Enterprises of Australia in a new woodchip export facility at Bell Bay, investment totalling $16 million. The new sawmill is specifically designed to cut 50,000m^3 of regrowth sawlog per annum.

The RFA also gave companies the business confidence to rationalise the industry through the purchase of other companies allowing them to develop economies of scale, providing a substantial quantity of product into the market. Expenditure on major timber company acquisitions between 1997 and 2003 totalled $461 million.

Similarly, the wider business community had the confidence to invest $325 million in private sector plantations through investment schemes.

All processors have developed the market and sales infrastructure to market and sell the expected volumes and products derived from the mix of logs that were guaranteed by the RFA and Forestry Growth Plan, including a significant overseas sales component. This has lead to a diverse complex industry where most individual companies have tailored their production to suit particular market niches.

These investments totalled $940 million over the first six years of the RFA and they are exclusive of additional investment by Country Sawmillers, the harvesting and transport sectors and further downstream processors such as the furniture, joinery, flooring and cabinet making industries.

3) Issues Arising from the 2010 Review

Industry is concerned that changes to meet the Tasmania Together benchmark to cease clearfell logging in old growth forests by 2010 will have a number of significant adverse affects upon industry and whilst many of these are articulated in the Forestry Tasmania papers, we believe they tend to be understated and their impact has not been fully evaluated. It seems clear that a change away from clearfelling to selective logging will result in a long-term decrease in the growth and vigour of the forest. Industry's major concerns arise because the move to an alternative to clearfelling brings about a number of undesirable outcomes:-

(a) all alternatives to clearfelling reduce the volume harvested within each coupe therefore to achieve the same harvested volume more coupes need to be planned, roaded, harvested and regenerated;

(b) all alternatives to clearfelling will result in decreased forest productivity associated with reduced health, vigour and efficiency of regeneration. This will result in the following consequential undesirable outcomes: -

- Forestry Tasmania may choose to reduce veneer/sawlog supply volumes to the minimum legislated requirement of 300,000m^3 per annum rather than the higher figures inherent in the RFA and the Forestry Growth Plan. This will have a direct adverse effect on sawmillers as it represents a reduction of 50,000m^3 per annum or 14%. This effect will be exacerbated when the new sawmill south of Hobart opens in a few months time with a processing volume of 50,000m^3 per annum;

- Forestry Tasmania have indicated that they will have to establish eucalypt plantations to create areas of greater productivity in order to offset the reduced productivity arising from the selectively logged areas as compared to clearfelled areas. It is our experience that many of the areas of State Forest suitable for plantation

establishment are stocked with regrowth that is 50 to 70 years old. Harvesting this regrowth earlier than the RFA targeted 90 year rotation will create two adverse effects on industry;

(i) firstly these young forests yield a relatively small proportion of small sawlogs and a large quantum of rotary peeler logs and pulpwood. Industry would like to see these areas be left to grow on for another 10 to 15 years at which time they will supply a much higher proportion of sawlog with a larger average diameter.

(ii) secondly logging these regrowth coupes may lead to an increase in the regrowth component of the sawlog supply and a corresponding decrease in the mature/oldgrowth supply.

The alternative to using these younger regrowth areas to obtain land for plantation establishment would see Forestry Tasmania compete for private land with existing private sector companies with a range of other undesirable outcomes.

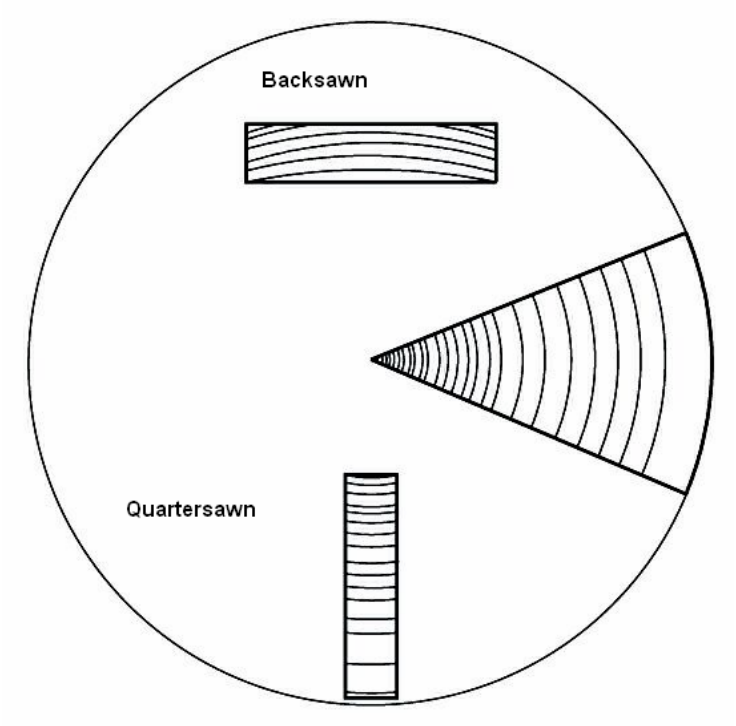
The on-going reliable supply of the old growth/mature logs is of vital importance to the States sawmilling and veneer industries. The reasons for the reliance on this feedstock are as follows: -

The supply of 170,000m^3 per annum of Category 1 & 3 mature and old growth saw and veneer logs to 2017 is an essential part of the industry investment and market development strategy. This type of forest also provides the majority of the Category 2 & 8 sawlogs essential to the viability of most country sawmillers. Forestry Tasmania's "Issues Paper" correctly states that any loss of production from these wet eucalypt forests will cause a disproportionately large loss in the sawmilling and veneer industries.

The move to an alternative silviculture such as aggregated retention would result in a 17.4% loss in volume in the Class 4, Category 1 & 3 high quality sawlog i.e. greater than 84cm mid length diameter (Farley 2004).

The reason for the industry dependence on this quality of log arises from the natural characteristics of “Tasoak” and the size and attributes of finished boards. Unfortunately whether regrowth or mature, “Tasoak” must be quartersawn to avoid the formation of unacceptable surface cracks (checks) and cupping during the drying phase. If the “Tasoak” sawmilling industry could apply the technique of backsawing logs, a considerable increase in processing efficiency with increased recovery of larger boards would result. The Forest and Forest Industry Council funded detailed research over a number of years in an effort to develop a way to successfully dry backsawn “Tasoak” but were unsuccessful at commercial scale. Industry has now proceeded to invest on the basis of quartersawing logs.

Illustration 1, Board orientation for Backsawn and Quartersawn methods



Large diameter sawlogs yield a much higher percentage of board recovery for a given volume than smaller sawlogs and the resulting boards are of a larger size and higher quality. Industry experience has shown that an 80 cm diameter log may yield 35% board recovery whereas a 40cm diameter log will yield only 15 to 20% recovery. The larger log will yield boards with a width of 30cm suited to a wide range of furniture, flooring, joinery and cabinet making applications, whereas the smaller log will only yield boards with a width 10 or 12cm suited to some flooring or mouldings.

In addition mature/old growth timber has fewer knots and yields a larger proportion of the desired clear veneer and timber boards. Timber sawn from mature/oldgrowth trees is harder, denser and stronger than regrowth timber making it more suitable for higher value applications.

Industry is supportive of additional plantations but believe their suitability to provide high quality sawlog is at best problematic and considerable research is required to determine whether or not these plantations will deliver a suitable feedstock.

FIAT and the TCSF believe that any additional plantations should be placed on public land that is currently occupied by derelict forest or mature forest, or alternatively on private property. Aided by the security of the RFA, private sector investment is servicing and should be encouraged to continue to service the funding requirements of the plantation establishment sector.

(c) All the proposed alternative silviculture to clearfelling will result in a significant increase in the delivered cost of sawlogs, veneer logs and to pulpwood producers. Cable harvesting systems supply approximately one third of this high quality mature/old growth harvest and are comparatively expensive to operate even in clearfelling applications. The existing systems are not suited to alternative forms of silviculture and specialised equipment will need to be purchased providing appropriate equipment exists and is available. These systems will have reduced productivity thus the overall harvesting cost will increase dramatically.

The increased supply cost will arise because of three main reasons;

1) Additional planning will be required to prepare a greater area for harvesting i.e. to recover the same volume from selective logging operations, a greater area needs to be harvested because the nature of selective logging means some of the trees remain unharvested

2) There will be additional cost associated because there will be additional roading required to provide access to a greater area (referred to in Point 1) to achieve the same volume harvested.

3) Increased logging costs associated with selective logging as compared to clearfelling. Of particular concern is the seven cable harvesters currently operating in mature/old growth forest. These cables provide +/- 63,000m^3 of veneer and sawlog and a decision to operate these systems on a partial logging system will dramatically increase their cost of production. Some cables such as high-lead systems cannot accommodate selective logging systems and will become redundant.

The following Table summarizes the annual effect of stopping clearfelling of oldgrowth on the sawmilling and pulpwood sectors and assumes an overall increase in coupe area to achieve the same veneer and sawlog supply. It does not deal with additional costs associated with forest management costs such as site preparation for regeneration.

Preliminary Analysis of the Additional Cost of Replacing Volume supplied from Clearfelled coupes with that from Selective coupes			
Cost centre	**$/M^3 or t**	**m^3 or tonnes**	**$**
Planning Cost sawlog	0.50	120,000	60,000
Roading Cost sawlog	1.00	120,000	120,000
Planning Cost pulplog	0.50	630,000	315,000
Roading Cost pulplog	1.00	630,000	630,000
Extra $ cable sawlog	20.00	63,000	1,260,000
Extra $ conv sawlog	3.00	57,000	171,000
Extra $ cable pulplog	20.00	252,000	5,040,000
Extra $ conv pulplog	3.00	228,000	684,000
Total			**8,280,000**
Assumes this affects 40% or 120,000m^3 sawlog			
Assumes a sawlog/pulplog ratio of 20% affects 480,000t pulplog			
Assumes 63,000sawlog/252,000pulplog cable and 57,000/228,000 conventional			
Planning and roading averaged over all products			
Logging cost specific to cable or conventional			

(d) Adopting an alternative silviculture to clearfelling will result in an overall decrease in public native forest biodiversity. This will occur because it is likely a significant area of high yielding plantations (possibly 30,000ha) must be established on public land to offset the reduced forest productivity arising from alternative silvicultural systems. Plantations have lower biodiversity than native forest.

Detailed Comment on the Forestry Tasmania Issues Papers

The following points summarise specific comments regarding the "Issues Paper".

Page 3 ref Table of Rankings

We believe this Table is misleading because there is an inference that the scale is the same between each of the ranked items. For example the difference between ranking 1 and 4 for Biodiversity is much less than the difference between ranking 1 and 4 for Operability and Safety. The table simplifies forest Biodiversity down to consideration only at a coupe level whereas it is normally properly considered on a landscape basis.(Issues Paper 1 Page 27). Additional consideration relating to Biodiversity is required by the need to balance the reduced productivity of the alternative silvicultures. This will require the establishment of high productivity plantations which will have a considerably lower biodiversity rating than that brought about by the implementation of CBS. To this extent this table is misleading and requires revision and/or clarification.

Page 4 ref Table of Operational cost indices

Industry is firmly of the opinion that the additional harvesting cost for conventional harvesting operations applying variable retention silviculture will increase by 110 to 120.

The table should either include a category for cable harvesting including an estimate of the increase in harvesting cost to be an index of 150 to 200 or alternatively the table should be footnoted as follows: "Currently there are 7 cable-harvesting systems involved in clearfelling operations in native forest. None of these cable systems are suited to selective logging at a commercial scale and if cable harvesting is to be continued new equipment would have to be purchased providing appropriate equipment exists and is available. The preliminary cost of timber produced via these new systems indicates that harvesting costs would increase by 50 to 100% over existing cable costs.

In the alternative, cable harvesting would cease, leading to a large number of steeper coupes being either in part or totally unmarketable.

This table is highly confusing and misleading and will not assist decision makers to fully comprehend the magnitude of the increased costs associated with an alternative silviculture. This is brought about because the use of indices does not discriminate between the magnitudes of the quantum's that will be indexed by the adjustment eg planning cost versus harvesting costs. To remedy this we request that some actual monetary amounts be included so that reasonable and fair assessments can be made. We note that even the author has concluded that an index of 300 – 400 equates to an increase of 300 to 400% which is an inaccurate use of the index system.

Paper 1 – Alternatives to Clearfell Silviculture in Old Growth Forests

***Page 3, Page 30**:-* Amend Tables as per above comments on Biodiversity

Paper 2 – Sustaining the Volume and Quality of Wood Yields from State Forests

Paper 2 - Page 3 & Page 5**:** - Refer previously mentioned "Issues Arising from 2010 Review" (page. 7 of this submission).

Paper 2 - Page 7

The area of old growth and the area unavailable for harvesting should be consistent with Page 1. The current differential references are highly confusing.

Paper 2 – Page & Page 8:-

Confine the discussion of and figures relating to old growth to public land only. This enquiry is only directed at public forest and the inclusion of private property only serves to confuse the issue.

Paper 2 - Page 15:- ***Post RFA Sustainable Yield Strategy***

Industry has concern over Figure 4. This shows a reduction in the supply of sawlogs at 2010 from 350,000m^3 to 300,000m^3 whereas the original forecast in the Forest Industry Growth Plan in 1997 showed a forecast of 350,000m^3 to 2017. The majority of the investment totalling $940million by the forest products processing sector have been predicated on the basis of the 1997 RFA/Growth Plan forecast of 350,000m^3 to 2017. This should continue to be the figure used to calculate yields, not the minimum of 300,000m^3.

Paper 2 - Page 19 & 20:- Role of Plantations

If industry is to be able to continue to include to supply the high quality boards that the markets demand, both native forest regrowth and plantations must be managed with a rotation that generates trees with a mid length diameter of greater than 80cm, not the minimum size which will only deliver logs suited to a commodity type of product. Any reduction in the supply of large diameter logs will impact significantly on recovery of high quality products and viability of processors.

FIAT and the TCSF believe that plantations should be placed on public land that is currently occupied by derelict forest or mature forest, or alternatively on private property. Aided by the security of the RFA, private sector investment is servicing and should be encouraged to continue to service the funding requirements of the plantation establishment sector.

An estimate based on the supplied Forestry Tasmania data suggests the cost of an additional 30,000 hectares plantation estate could be of the order of $132M. Some valid projections of cost should be supplied.

Paper 2 - Page 21 - Other plantation products

The management regime and rotation length must primarily target larger diameter sawlog, and peeler logs and pulpwood should be produced as an arising not as a targeted product.

Paper 2 - Page 24 - Sustainable yield model

The model that is predicted to be run must include a requirement for the native wet eucalypt forest to be managed on a minimum rotation of 90 years.

We see no valid requirement to constrain the model not to accelerate the harvest of old growth prior to 2010 and we regard this as an unreasonable and artificial constraint. The review does not focus on removing any old growth currently available from harvest plans and therefore the model should not be so constrained. This is also inconsistent with other papers that signify the necessity of an increase in the rate of harvest of mature forest.

The size of sawlog (plantation or regrowth) should be managed to supply not less than 25% of logs with a mid length diameter greater than 80cm to equate to the current demographic.

Current diameter of harvested logs shows over 50% of all Category 1 & 3 sawlogs are within log classes 3 and 4 within which the 80cm diameter fits (Farley 2004).

Paper 3 Financial, Economic and Community Considerations

***Paper 3 – Page 1 Introduction*.**

This section must start with a summary of the RFA and Forest Industry Growth Plan promised 350,000m^3 per annum from 1997 to 2017 including 170,000m^3 of mature/old growth logs. This would also satisfy the minimum supply of 300,000m^3 per annum. The section summarising contracts to industry should identify the existing industry supply plus Southwood (50,000m^3). Any failure to include this data as requested will immediately raise the sovereign risk issue identified at page 2.

***Paper 3 - Page 4*.-.Forest Industry Turnover**

The background Report for the RPDC 5 year review of the RFA lists the Forest industry turnover as $1.27 billion per annum. The figure should be amended to accord with that data.

Total employment in Tasmania's forest industry is 10,693 (Forest and Forest Products Employment Skills Company Report 2004). We request that this data be updated to reflect this contemporary report.

Paper 3 – Page 6 – Retained volume of supply

The Forest Industry Growth Plan provided an increase in supply of 50,000m^3 of sawlog from 300,000m^3 to 350,000m^3 through until 2017 to stimulate investment in processing technology as a result of the change in log inputs. Industry accepted this change in log inputs with the understanding that there would be volume security until 2017, any change to these volumes will have a negative impact on future industry investment decisions.

Paper 3 – Page 7 – Forest Management Issues

Industry supports the reference to a longer plantation rotation of 25 to 35 years to achieve the aforementioned log size however, all papers should be amended for consistency to this rotation timeframe as a number of different rotation lengths are used throughout the papers.

Paper 3 – Page 7 – Loss of High Quality Sawlog

The actual loss in high quality large diameter sawlogs is projected to account for 81% of the total lost volume (Farley 2004). This quantification should be included in the paper.

Paper 3 – Page 9 – Cash Flow Impacts

We do not see any valid foundation for the assertion that Forestry Tasmania must have contractual control of plantations. A good economic model could see private investment assuming some input to the total cut.

Paper 3 – Page 11 – Land Supply Agreements

Industry is supportive of additional plantations but believe their suitability to provide high quality sawlog is at best problematic and considerable research is required to determine whether or not these plantations will deliver a suitable feedstock.

FIAT and the TCSF believe that plantations should be placed on public land that is currently occupied by derelict forest or mature forest, or alternatively on private property. Aided by the security of the RFA, private sector investment is servicing and should be encouraged to continue to service the funding requirements of the plantation establishment sector.

Paper 3 – Page 13 - Wood quality

A review of published work on sawing and drying trials of hardwood plantation wood equivalent to Category 1 & 3 sawlogs conducted by Strategic Forestry Research (Bruce Greaves) concludes as follows:

> *The one reported study of mature (22year old), sawlog managed plantation (E. globulus in Western Australia) was reported to have high sawlog outturn, with 53% of the harvested volume graded as Category I or III equivalent. The reported recovery of select grade sawn product was high, however the recovery of reasonable-dimension select-grade sawn-product was 30-40% lower than recoveries thought to be obtained from sawlogs currently sourced from natural-stand forests. Branch-related defects (large dead knots and*

loose knots) were a major grade-limiting defect and were more common than would be expected from natural stand logs of the same grade.

From the review of the limited number of reported sawing-studies of plantation-grown eucalypts it must be concluded that plantations with appropriate management (early pruning and early intense thinning) may be able to provide logs of suitable size and form to be graded as Category I &III sawlogs, but these sawlogs will most likely be of inferior quality to similarly graded logs sourced from natural stands: branch related defects will probably be more prevalent and recovery of reasonable dimension select-grade product will be lower.

We believe the result of this work will add value to the discussion with this paper and should be added. This will assist decision makers to come to an informed decision.

Paper 4 - Safety Management

***Paper 4 - Page 1 Third paragraph* – Worker safety**

The statement suggesting that the safety hazard posed to forest workers working in an aggregated retention silviculture may not be significantly greater than clearfell silviculture does not take into account the increased edge effect arising via an increase of at least 30% in coupe boundaries. We believe this would significantly increase the risk of accident to forest workers.

A clear statement in line with the State of the State reference should be included to the effect that no compromise in worker safety will be acceptable.

Paper 5 – Forest Management Issues

Paper 5 Page 2 **- Operational Cost Table**

Industry is firmly of the opinion that the additional harvesting cost for conventional operations applying variable retention will increase by 110 to 120 and we request that this be reflected in the table. Our estimate of additional costs are provided earlier in this submission..

The table should either include a category for cable including an estimate of the increase in harvesting cost to be an index of 150 to 200 or alternatively the table should be footnoted as follows: "Currently there are 7 cable-harvesting systems involved in clearfelling operations in native forest. None of these cable systems are suited to selective logging at a commercial level and new equipment would have to be purchased providing appropriate equipment exists and is available. The preliminary cost of timber produced via these new systems indicates that harvesting cost would increase from 50 and 100% in addition to existing cable costs.

This table is highly confusing and misleading and will not assist decision makers to fully comprehend the magnitude of the increased costs associated with an alternative silviculture. This is brought about because the use of indices does not discriminate between the magnitudes of the quantum's that will be indexed by the adjustment eg planning cost versus harvesting costs. To remedy this we request that some actual monetary amounts be included so that reasonable and fair assessments can be made. We note that even the author has concluded that an index of 300 – 400 equates to an increase of 300 to 400% which is an inaccurate use of the index system.

Paper 5 - Page 4 - Forest Practices Plans

The area under discussion currently refers to the area of old growth harvested each year. This area should be the area of "coupes that contain old growth" not simply old growth as per Paper 2 Page 9. The revised definition of old growth coupes as coupes with an old growth component would in fact double the area under consideration to

3000 hectares and the industry would therefore require another 1000 hectares per year of coupe area for variable retention.

Paper 5 Page 5 - Maintenance of the Permanent Forest Estate

Forestry Tasmania's statistics regarding targets and achievements with respect to the Permanent Forest Estate should relate to the area of State Forest and not include the reserved public land. In this case Forestry Tasmania would exceed a Permanent Forest Estate threshold of 95% on State Forest in order to reach its target plantation estate increase of 30,000 hectares in order to meet sawlog commitments.

***Paper 5 Page 7 Issues that need to be addressed*:**

Add

The increased number and complexity of burns will complicate scheduling of future coupes dramatically if climatic conditions do not allow completed coupes to be burned and regenerated due to the proximity of unburnt coupes to planned coupes.

Add

The increased number of burns required to be carried out each year will potentially raise another contentious social issue.