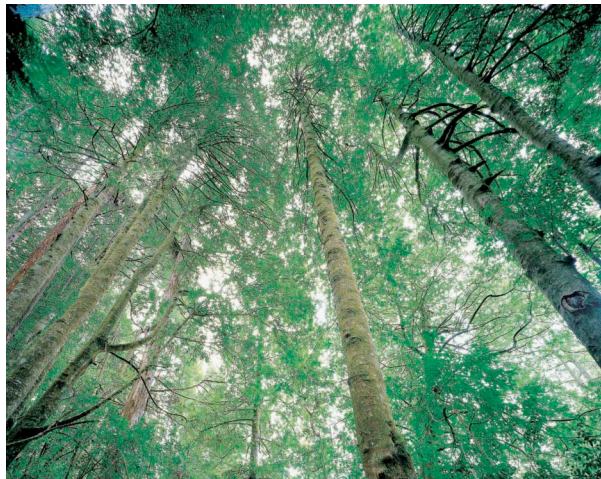




## **The Wilderness Society's submission relating to wood supply impacts of Gunns proposed pulp mill for the ANZ Bank's assessment.**

**December 2007**



Tombstone Creek, Northeast Tasmania. Before logging in 2003 and after logging in 2006. Photos: Rob Blakers

## CONTENTS

<b>1. Executive Summary</b>	<b>3</b>
<b>2. Introduction</b>	<b>4</b>
<b>3. Background</b>	<b>7</b>
<b>4. Gunns' pulp mill</b>	<b>16</b>
<b>5. Intensification of forestry operations in Tasmania as a result of the pulp mill.</b>	<b>21</b>
<b>6. Impact of pulp mill on climate change.</b>	<b>26</b>
<b>7. World Heritage.</b>	<b>28</b>
<b>8. Recommendations</b>	<b>32</b>
<b>Appendix 1: Documented World Heritage values of threatened forests.</b>	<b>33</b>
<b>Appendix 2: Reports on threats to the integrity of the Tasmanian World Heritage Area.</b>	<b>35</b>
<b>Appendix 3: The pulp mill: The forgotten issue is wood supply, by Dr Chris Beadle.</b>	<b>37</b>

## **1. Executive Summary**

Gunns Ltd's forestry activity is currently responsible for large scale destruction of Tasmania's irreplaceable forests, the poisoning of native wildlife, and massive greenhouse gas emissions.

Gunns' proposed pulp mill will drive ongoing destruction of Tasmania's native forests. At start-up 80% of the wood for the mill will come from carbon-dense native forests which are critical habitat for endangered species and protect water catchments important for domestic and agricultural water supply. There are no guarantees that the pulp mill will make the transition to using plantations. However, even based on Gunns' unrealistic projections, the pulp mill would still consume over 200,000 hectares of native forests. The logging of such a huge area would cause an increase in Australia's greenhouse gas emissions of around 2%.

While there are a range of recognised environmental problems with the proposed pulp mill, including air pollution, smell and the impact of toxic effluent on the marine environment, this submission focuses only on forestry and climate change issues and the critical problem that the impact of the mill on these areas has never been assessed. Nor has there been an assessment of the mill's negative impacts on other industries such as fishing, farming, tourism and wineries. The Wilderness Society believe that Tasmania's native forests should be protected as carbon sinks, endangered species habitat, water catchments and for their scenic and wilderness values.

The ANZ bank should not fund Gunns' proposed pulp mill as it would lock in environmentally and socially destructive logging practices for generations to come. Gunns has refused to amend or change the project despite intense and widening concern expressed in the Tasmanian and Australian community, by independent pulp mill experts such as Dr Warwick Raverty and by groups such as the Australian Medical Association, Investors for the Future of Tasmania and The Wilderness Society.

In these circumstances, and with crucial issues like the impact on forests and climate change unassessed and officially ignored, the ANZ should not fund this mill. Instead we request that the ANZ lead a process to encourage a transition of Gunns plans and operations to ensure sustainable forestry and environmental protection.

## 2. Introduction

Tasmania has the tallest hardwood forests on Earth, with trees reaching nearly 100 metres and over 400 years old. These occur along the eastern fringe of the South-West Wilderness World Heritage Area, and are recognised as having World Heritage values. Tasmania has Australia's greatest tract of temperate rainforest – in the little-known Tarkine wilderness in the north-west of the state. Northern and eastern Tasmania contains significant tracts of dry-sclerophyll eucalypt forest that are important to biodiversity, water supply and community. Climate change has sparked a flurry of interest in the large carbon storage capacity of forests and the high levels of emissions on logging of these carbon banks.

Tasmania also has some of Australia's most destructive logging practices. Thousands of hectares of native forest are clearfelled and burnt each year. Between 10 000 and 15 000 hectares have been cleared and converted to plantation every year since 1998. Much of this destruction is subsidised by the Australian taxpayer. Tasmania exports more than double the amount of woodchips than all other states of Australia put together. An alarming amount of this is sourced from high conservation value native forests. Logging is destroying Tasmania's tall forests, its rainforests and its wilderness areas; it directly costs the taxpayer money and is having a serious detrimental effect on community cohesion.

The Wilderness Society has been campaigning for the protection of Tasmania's wild places, in particular her forests, for decades. Parallel with this campaign of protection, The Wilderness Society has called for reform of the timber industry to move away from a dependence on woodchipping, to stop logging high conservation value forests and to be economically self sufficient and not reliant on public subsidies. While some forest areas have been protected, the industry continues to destroy vast areas of identified high conservation value forest, to be heavily woodchip dependent and to continue to draw on subsidization from the public purse.

As the ANZ has been the banker for Gunns since 1995, The Wilderness Society believes the bank currently plays an important role in the mismanagement of forests and forestry in Tasmania, but can reverse that by playing a role in the transition to sustainable forestry and environmental protection. The Wilderness Society requested to make a submission to the ANZ giving information for consideration in their deliberations on whether to fund Gunns highly controversial pulp mill. The Wilderness Society was given two weeks to make this submission.

There are numerous complex issues involved in any investigation of forestry operations in Tasmania and the impact they are having on social, economic and environmental values. The conflict over the logging of high conservation value forests in Tasmania has been long (over three decades), and is considered a defining issue that requires resolution.

It is the view of THE WILDERNESS SOCIETY and many in the community that the pulp mill represents a project that would lock in the negative impacts of logging for generations to come. It represents a serious threat to the ability of the community, governments, community groups and the logging industry to negotiate a resolution of the logging debate to the satisfaction of all parties. The pulp mill would be a major driver of the long-term maintenance of the status quo – the conflict, the uncertainty and the other negative implications we see today.

Neither the State nor the Federal Government assessment of the pulp mill examined the issue of logging or the impact of logging on the forests, water, wildlife and climate. Instead, these assessments deferred responsibility for this to The Regional Forest Agreement (RFA) that the Federal Court found failed to be able to protect certain threatened species of wildlife.<sup>1</sup> This is also a document that fails to address climate change and carbon emissions. Indeed the RFA does not even mention the words carbon, climate change or greenhouse and should not form the basis of any assessment of the sustainability of forestry operations.

The assessment of the pulp mill has been shambolic. The Resource Planning and Development Commission (RPDC) assessment, agreed to by both governments and Gunns, was abandoned. This independent assessment was to examine the impact of the pulp mill on the forest, assess greenhouse gas emissions and involve public hearings. Significantly, the RPDC was abandoned when it was clear to the panel that the information supplied by the proponent in their impact statement was unsatisfactory, and before the public had had an opportunity to fully contribute and test the proposal.

The ultimate assessments adopted by the State and Federal governments were scandalously superficial by comparison. The forests have been left out, climate implications of the pulp mill have been ignored and no public hearings implemented. Community confidence in the assessments is low; opposition to the project is growing and will continue. Community campaigns to protect Tasmania's forests will also continue and, should the pulp mill be built, constant conflict over the native forests feedstock for the mill can be expected.

The Wilderness Society has not been provided with any detail on the scope of ANZ's assessment plans, the guidelines by which the assessment is being carried out, who is carrying out the assessment or how it will be incorporated into the banks decision-making process. While we are prepared to offer this submission, the ANZ bank's assessment is NOT seen as an appropriate replacement for the independent assessment once being carried out by the RPDC.

The Wilderness Society does not believe the pulp mill project can meet the basic standards of ethical investment and sustainability, the UNPRI's or the Equator Principles. The Wilderness Society has consistently held a position that is not a blanket opposition to all pulp mills or the timber industry. The Wilderness Society could support a pulp mill provided it was based 100% on existing plantations, be Totally Chlorine Free, sited in an appropriate location and properly assessed with honesty, transparency and public involvement.

The Wilderness Society believes that due to the lack of accurate information from the proponent, the abandonment of the agreed assessment process, the sidelining of public involvement and the anticipated social, economic and environmental impacts that the pulp mill will have, the project has no social license. The controversy around the mill is unlikely to go away in the near future.

---

<sup>1</sup> Brown v Forestry Tasmania (No 4) [2006] FCA 1729 (19 December 2006). While this decision was recently overturned on appeal, the Appeal Court's verdict did not displace this finding. See Forestry Tasmania v Brown [2007] FCAFC 186 (30 November 2007).

Given the above, the project should not be funded by ANZ and the bank should begin to actively work with Gunns to assist them in the long overdue reform of the company's business model and strategic direction. This would help to facilitate the much-needed protection of high conservation value forests and the introduction of truly environmentally, economically and socially sustainable logging practices.

### 3. Background

To properly assess the impact of Gunns' proposed pulp mill on native forests, their associated ecosystems and the environmental services they provide, it is first necessary to examine existing logging practices and current impacts, and to review the role of native forests in greenhouse gas sequestration.

#### **Current extent of forest protection in Tasmania**

Tasmania has some magnificent areas that are already formally protected in designated national parks or as part of the Tasmanian Wilderness World Heritage Area. In total, these areas make up approximately 40% of the state, something that makes Tasmania globally renowned for wilderness value and natural experiences. However, the vast majority of this area is un-forested, being mountainous areas, heathlands and buttongrass plains. While there are some areas of forest protected, on the whole significant areas of commercially loggable forest, such as those in the Upper Florentine Valley or on the slopes of Ben Lomond, were deliberately excluded from protection. Areas of limited or no value to the logging industry form the bulk of Tasmania's protected land mass.

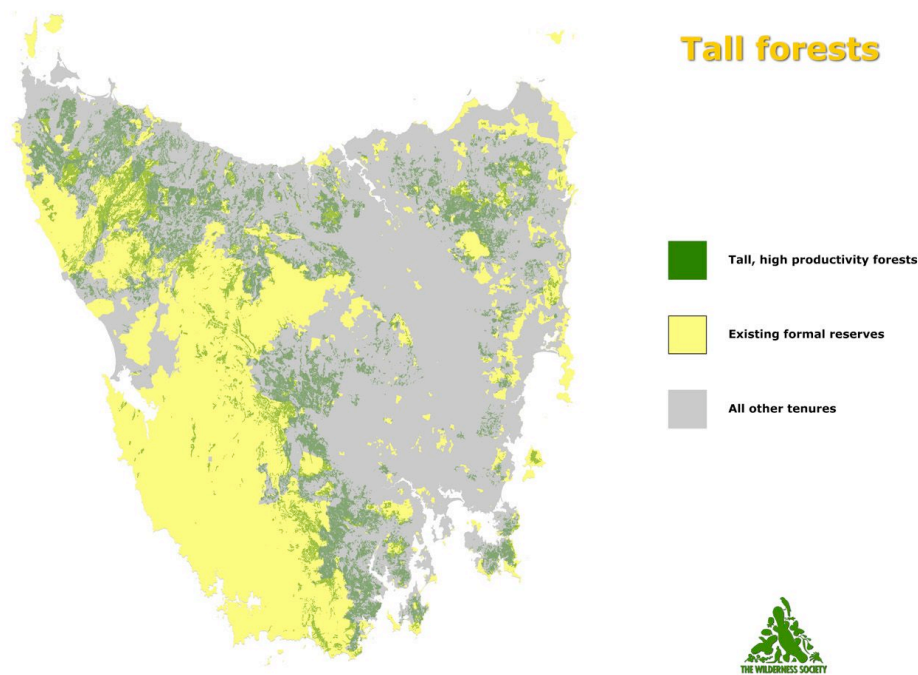


Image 1: Extent of Tall, high productivity forests and existing formal reserves in Tasmania.

#### **Current extent of logging in Tasmania**

The Forest Practices Authority (FPA) administers the forest practices system in Tasmania and in its annual reports<sup>2</sup>, publishes data on the total area of forest logged in Tasmania each year. These reports show that since 1999 on average, 35 455 hectares of native forests are logged in Tasmania each year.

<sup>2</sup> Forest Practices Authority annual reports 1999 - 2006:

[http://www.fpa.tas.gov.au/index.php?id=81&tx\\_avotherresources\\_pi1\[action\]=ResByCat&tx\\_avotherresources\\_pi1\[cat\]=2](http://www.fpa.tas.gov.au/index.php?id=81&tx_avotherresources_pi1[action]=ResByCat&tx_avotherresources_pi1[cat]=2)

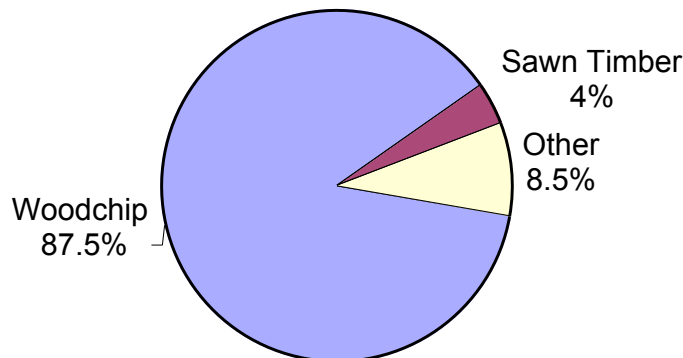
As Gunns is the company responsible for the vast majority of export woodchipping in Tasmania, most of this logging can be directly linked to their business operations (see Table 2 and Diagram 2).

**Table 1: Total area (hectares) logged in Tasmania since 1999.**

	State Forest	Private	Total
1999-2000	14300	20800	35100
2000-2001	17850	24210	42060
2001-2002	15930	16090	32020
2002-2003	18270	17050	35320
2003-2004	19151	19627	38778
2004-2005	17420	16908	34328
2005-2006	16026	14387	30413
<b>TOTAL</b>	<b>118947</b>	<b>129072</b>	<b>248019</b>
<b>AVERAGE</b>	<b>16992.43</b>	<b>18438.86</b>	<b>35431.29</b>

### **Export Woodchipping**

The major product extracted from Tasmania's native forests is woodchips. Diagram 1 demonstrates that woodchips make up 87.5% of the total wood extracted from native forest logging coupes in 2005-2006.<sup>3</sup>



**Diagram 1: Native Forest Wood extracted from State Forest 2005-2006 (Includes woodchips generated from sawmill residues).**

There are two different sources of woodchips in Tasmania, plantations and native forests. As shown in table 2, of the total woodchipping, 74.7% or 3.1 million tonnes is obtained from logging native forests (52.2% from state owned land managed by

<sup>3</sup> Forestry Tasmania Annual Report 2005-2006 and the Ryan Report 1999.



Forestry Tasmania<sup>4</sup> and 22.5% from private land, administered by Private Forests Tasmania<sup>5</sup>). The remainder, 25.3% or 1 million tonnes per year, is sourced from plantations.

**Table 2: Total Tasmanian hardwood pulpwood production 2005–06.**

<b>Total Tasmanian hardwood pulpwood production 2005–06</b>	<b>Volume (tonnes)</b>	<b>% of total</b>	<b>Source</b>
Native—state forest	2,191,132	52.2%	Forestry Tasmania
Native—private forest	944,096	22.5%	Private Forests Tasmania
<b>Total native forest pulpwood</b>	<b>3,135,228</b>	<b>74.7%</b>	
Plantation—state forest	89,619	2.1%	Forestry Tasmania
Plantation—private forest	973,209	23.2%	Private Forests Tasmania
<b>Total plantation pulpwood</b>	<b>1,062,828</b>	<b>25.3%</b>	
<b>Total hardwood pulpwood</b>	<b>4,198,056</b>	<b>100%</b>	
Gunns woodchip sales	3,500,000	83.4%	Gunns Annual Report

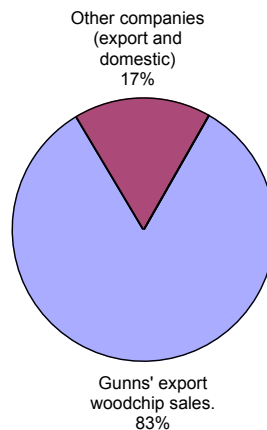
Table 2 also shows that the vast majority of woodchips produced in Tasmania are exported by Gunns. The total woodchip production in Tasmania for 2005-2006 was almost 4.2 million tonnes. According to Gunns' Annual Report 2006<sup>6</sup> the company exported 3.5 million tonnes of woodchips, which is approx 83.4% of the total woodchip production.

<sup>4</sup> Forestry Tasmanian Annual Report 2005 – 2006  
[http://www.forestrytas.com.au/forestrytas/pdf\\_files/ft\\_annual\\_report\\_2006\\_web\\_part\\_1.pdf](http://www.forestrytas.com.au/forestrytas/pdf_files/ft_annual_report_2006_web_part_1.pdf)

<sup>5</sup> Private Forests Tasmania annual report 2005 –2006  
<http://www.privateforests.tas.gov.au/pdf/PrivateForestAR2006.pdf>

<sup>6</sup> Gunns' annual report 2006  
[http://www.gunns.com.au/corporate/download/gunns\\_annual\\_report\\_2006.pdf](http://www.gunns.com.au/corporate/download/gunns_annual_report_2006.pdf)

Diagram 2 pictorially highlights how Gunns are responsible for exporting the vast majority of woodchips produced in Tasmania.



**Diagram 2: Gunns share of total woodchip exports from Tasmania.**

### **Standard logging practices in Tasmania - Clearfell, burn and poison**

Logging practices in Tasmania have been internationally criticised by groups such as the World Heritage Committee, the IUCN and environment groups. A number of international reports have added to this criticism,<sup>7</sup> one report grouping practices in Tasmania with those seen in developing countries such as Indonesia, Burma, Cameroon and Brazil.<sup>8</sup> Currently a number of international NGOs are running campaigns to highlight the logging practices of Gunns. Such groups include Rainforest Action Network and BankTrack. In Australia, Gunns' logging practices are widely condemned by national groups including The Wilderness Society, Greenpeace and the Australian Conservation Foundation. Locally, the peak representative group Environment Tasmania is highly critical, and numerous community groups and individuals are campaigning for industry reform and the protection of forest areas currently under threat of logging.

The logging practices carried out by Gunns include the use of clearfell silviculture, liquid incendiaries (napalm) and the poison sodium monofluoroacetate (1080). Though legal, these practices are widely condemned.

<sup>7</sup> See for instance, National Academy of Sciences, USA (2005) *Latent extinction risk and the future battlegrounds of mammal conservation*. Marcel Cardillo, Georgina M. Mace, John L. Gittleman, and Andy Purvis.

<http://blackbear.ecology.uga.edu/gittleman/pdfs/Cardillooetal2006.pdf>

<sup>8</sup> ICCO, ICUN, WWF, Greenpeace, Mileu Defensie, NCIV (2004) *Legal Forest Destruction: The wide gap between legality and sustainability*.

<http://www.greenpeace.nl/raw/content/reports/legal-forest-destruction.pdf>

## Clearfelling

Clearfelling is an extremely unpopular and environmentally destructive harvest technique where every tree in a designated area is felled. Those deemed marketable are removed from the site and the remaining 'debris' is burnt in a high intensity fire, generally ignited from a helicopter. Clearfell logging practices is leading to serious habitat loss and threat to biodiversity, a fragmentation of the landscape, degradation of water flows and massive levels of greenhouse gas emissions.

**Table 3: Total area (hectares) of native forest clearfelled in Tasmania since 1999.**

	<b>State</b>		
	<b>Forest</b>	<b>Private</b>	<b>Total</b>
1999-2000	10700	9600	20300
2000-2001	10210	7890	18100
2001-2002	8070	4960	13030
2002-2003	8150	6450	14600
2003-2004	9805	6082	15887
2004-2005	7987	4604	12591
2005-2006	9477	6981	16458
<b>GRAND TOTAL</b>	<b>64399</b>	<b>46567</b>	<b>110966</b>
<b>AVERAGE</b>	<b>9199.86</b>	<b>6652.43</b>	<b>15852.29</b>

To counter negative publicity generated by clearfelling practices, logging techniques have been modified slightly and renamed as part of a concerted public relations campaign. This so-called 'selective logging' or 'partial logging' can include logging practices such as 'aggregated retention', where clumps of standing forest are left in the midst of the clearfelled, burnt remains of the forest. These clumps are of limited use for conservation, the trees are often killed by the burn-off and are subject to the 'edge-effects' of drying, wind damage and disease. Partial logging can also include two-stage clearfelling where the logging area is clearfelled in stages over time.



Image: The 'alternative' to clearfelling most frequently used is so-called Aggregated Retention, in which clumps of standing forest are left in the midst of the clearfelling and burning. These clumps are useless for conservation. The trees are often killed by the burn-off.

### **'Regeneration' burns – napalm**



The so called 'regeneration' burns follow clearfelling. Unmarketable logs, debris and the general remains of the forest ecosystem are burnt in a high intensity fire. These fires are ignited by dropping a napalm-like substance from a helicopter. This practice is widely condemned for three principle reasons - impact on air quality and human health, impact on climate change and escaped fires.

Each year Gunns conducts its burn-offs in autumn. In some cases the smoke from these burns blows into populated areas, massively increasing air pollution at that time. Mismanaged burns have recently caused the closures of roads and schools and this smoke pollution inflames health conditions such as asthma, particularly for the very young and elderly.

Logging and landclearing is a major emitter of greenhouse gasses that cause global warming. Globally it accounts for more greenhouse gases entering the atmosphere than the entire transport sector. Regeneration burns are the visible sign of vast amounts of greenhouses gases entering the atmosphere as thousands of tonnes of wood are burnt. Carbon deposits that have built up in the soil structure over hundreds of years are also destroyed and emitted as atmospheric carbon.

Burns regularly escape the boundaries of the area being burnt. This has a devastating impact on native forest and wildlife habitat and can threaten existing national parks and world heritage areas.

Forestry burns are a highly visible and deeply unpopular aspect of the logging industry. Whilst most logging operations are hidden behind locked gates, these burns are visible to all and highlight the scale and frequency of logging in Tasmania. They generate high levels of community anxiety.

### **Sodium monofluoroacetate (1080)**



Tasmania is the only remaining state in Australia where 1080 poison is used to target native wildlife such as possums, wallabies and wombats in order to protect economic interests, such as maturing plantation forests. Other states and New Zealand do utilise this poison, sometimes in greater quantities than in Tasmania, however in those cases it is only used to target feral species that are posing a significant threat to the natural environment. Examples are its use to control foxes, dogs and deer. 1080 is banned from use in many countries around the world

The practice of using 1080 has been banned on public land in Tasmania. However, 1080 poisoning of native animals is continuing on private land in Tasmania, despite a promise by the Federal Government that it would end by December 2005.

In 2004 the Federal Government released its forestry policy “A Sustainable Future for Tasmania”<sup>9</sup> in which stated:

“The sight of native animals dying from 1080 poisoning is unacceptable to Australians.”

1080 is used to kill native wildlife that would browse (feed) on the growing tree seedlings. The animals die painfully and slowly. It is not target specific. Animals, including endangered species such as the bettong, are susceptible.

Gunns has 273,000 hectares of land estate under management<sup>10</sup> in Tasmania on which it can continue to use 1080. Exact quantities used by the company are not publicly released, but being Tasmania’s largest private landowner, Gunns would be one of Tasmania’s heaviest users of 1080 poison.

<sup>9</sup> Federal Government policy, 2004: A Sustainable Future for Tasmania  
[www.liberal.org.au/2004\\_policy/A\\_Sustainable\\_Future\\_for\\_Tasmania\\_merged.pdf](http://www.liberal.org.au/2004_policy/A_Sustainable_Future_for_Tasmania_merged.pdf)

<sup>10</sup> Gunns’ pulp mill EPBC Act Impact Assessment  
[http://www.gunnspulpmill.com.au/epbc/Impact\\_Assessment\\_Final.pdf](http://www.gunnspulpmill.com.au/epbc/Impact_Assessment_Final.pdf)

## Endangered Species



The landmark December 2006 Federal Court decision (*Brown v. Forestry Tasmania*<sup>11</sup>) determined that logging operations in Tasmania's Wielangta state forest were unlawful because they threatened three endangered species: the Tasmanian wedge-tailed eagle, the Swift Parrot and the Wielangta Stag Beetle. Gunns was the principal contractor in those forestry operations.

Forestry Tasmania appealed the decision, which was overturned by the Full Federal Court on the grounds that forestry operations did not have to comply with federal endangered species legislation where an RFA existed. The original finding that the forestry operations were having a significant impact on threatened species still stands.

Government and industry said<sup>12</sup> that the judgment potentially adversely affected logging operations all around Tasmania. This was effectively an admission that many logging operations in Tasmania are failing to protect threatened species.

The habitat of endangered species continued to be logged across Tasmania. The pulp mill poses a significant threat to species such as the Tasmanian wedge-tail eagle. Gunns have indicated that at start-up 80% of wood for the pulp mill would come from native forests and that the majority of this would be sourced from north-east Tasmania. Independent scientists have said that if proposed logging proceeds the wedge-tail eagle faces a 99% chance of extinction in north-eastern Tasmania.<sup>13</sup>

### **Water Catchments**

Logging in Tasmania, especially in those areas identified as forming part of the wood supply zone for the pulp mill, is not excluded from domestic water catchments. Logging and landclearing continues to occur in the forested catchments of rivers that have downstream users, including households and agriculture.

---

<sup>11</sup> Federal Court of Australia judgement on *Brown v. Forestry Tasmania*:  
[http://www.austlii.edu.au/au/cases/cth/federal\\_ct/2006/1729.html](http://www.austlii.edu.au/au/cases/cth/federal_ct/2006/1729.html)

<sup>12</sup> Mercury Wednesday December 20, 2006.

<sup>13</sup> Mooney 2005; University of Melbourne and Forestry Tasmania 2003; Bekessy transcripts, Wielangta court case 2006.



Tasmania is not immune to the national water issue highlighted by the current drought and all of Tasmania is currently designated drought affected. The 2006/07 Summer saw irrigation rights stopped from many northern rivers and a unique algal bloom form in Launceston's domestic water supply.

Clearing native forests for plantations in upper catchments has significant impacts on water quality and availability. Global research has shown that plantations decrease stream flow by over 50% (Jackson et al, 2005). Forests function like giant sponges, regulating water flows to reduce the impact of flood situations and to release stored water over long dry periods. Cable logging, clearfelling and burning unbalances this regulating function.

Water quality in streams and rivers is being affected by siltation and chemical usage. Plantations in catchments are regularly sprayed from the air with herb and pesticides. Inevitably these chemicals find their way into the water and cause contamination. Extensive work has been done by geohydrologist Dr David Leaman, Todd Walsh, Pete Godfrey, The National Toxic Network, Save our Sisters, Friends of the Blue Tier and contributors to the Journal of Tasmanian Community Resource Auditors Incorporated to explore the mismanagement of Tasmania's forests and water.

Dr David Leaman, a Tasmanian geohydrologist, has warned that problems are developing due to the short-term intensive forestry operations in upper catchments, and that the implied total wood demand of the Regional Forestry Agreement is hydrologically unreasonable. He has also recommended that older forests need to be retained in Tasmania's upper catchments.

## 4. Gunns' pulp mill

### **Introduction:**

Gunns' proposed pulp mill presents a major threat due to its significant impact on the native forests, wildlife, water catchments and carbon sinks of Tasmania. To date Gunns has not conducted research into these impacts as part of its Integrated Impact Statement (IIS), Supplementary Information or EPBC Impact Statement. There are other negative impacts on the mill in relation to odours, air pollution and the impact of marine effluent, but this submission focuses only of forest and forest related impacts.

A critically important study by the Centre for International Forestry Research (CIFOR), which examined over sixty pulp mill developments worldwide, found that:

... the enormous scale of modern pulp mills means that they consume very substantial volumes of wood. A single BHKP (bleached hardwood Kraft pulp mill) with an annual capacity of 1.0 million tonnes, for instance, will typically require between 4.5 – 5.0 million cubic meters of roundwood per year – roughly equivalent to 15 percent of the total annual timber harvest from the Brazilian Amazon. Large-scale pulp mills can also place considerable pressures on natural forests when production capacity is installed before supporting plantations are brought online, as prior CIFOR research in Indonesia has shown.<sup>14</sup>

The CIFOR study highlights the need for a full, comprehensive and public assessment on the impact of wood supply for Gunns' proposed pulp mill. Experts on Tasmania's flora and fauna have also called for a full assessment of the impacts of the wood supply for the pulp mill. Senior Lecturer in Plant Ecology at the University of Tasmania Dr. Mark Hovenden included the following in his submission to the now abandoned RPDC assessment of the proposal.

The IIS covers only the environmental impacts of the physical development itself and does not cover the environmental impacts of the pulpwood sources, despite the fact that these are likely to be substantial. Increasing the removal of woodchips from Tasmania's native forests will have significant impacts on the forest communities, including many threatened plant, animal and fungal species. Without a comprehensive analysis of the quantity of woodchips to be extracted from Tasmania's forests, exactly where these woodchips are to be sourced and a detailed analysis of the environmental impacts of the increased forestry and associated activities, the IIS does not adequately assess the true impact of the proposed pulp mill. As many of the areas from which the woodchips are to be sourced are of conservation significance and contain threatened species, I urge the Commission to require the proponent to prepare a detailed assessment of these impacts.<sup>15</sup>

---

<sup>14</sup> CIFOR (2006) Financing Pulp Mills: An Appraisal of Risk Assessment and Safeguard procedures. Available at:

[www.cifor.cgiar.org/publications/pdf\\_files/Books/BSpek0601.pdf](http://www.cifor.cgiar.org/publications/pdf_files/Books/BSpek0601.pdf)

<sup>15</sup> Dr Mark Hovenden, Senior Lecturer in Plant Ecology, submission to RPDC.

[http://www.rpdc.tas.gov.au/\\_\\_data/assets/pdf\\_file/69698/359\\_Dr\\_Mark\\_J\\_Hovenden.pdf](http://www.rpdc.tas.gov.au/__data/assets/pdf_file/69698/359_Dr_Mark_J_Hovenden.pdf)



A peer review report was prepared for the RPDC by independent consultants URS Forestry<sup>16</sup>, examining Gunns' wood supply information presented in the IIS. The report found that Gunns failed to assess risks adequately, falsely claimed “no intensification of forestry operations” and did not meet the basic requirements of the relevant government authority. Further findings of the report include:

- that intensification of forestry activities could occur with the pulp mill development (therefore environmental, social, economic, and community impacts may occur and should be investigated) (S 2-1);
- that there is insufficient breakdown of the plantation area available (S 3-1);
- that the IIS does not address issues of risk relating to wood supply, eg fire, disease, climate change or additional protection of native forests in secure reserves (S 6-2, S 7-2); and
- that Gunns has not followed normal practice in assessing environmental and operational risk (S 7-2).

Expert witnesses must be involved in an assessment of the proposal to ensure that all information is presented and scrutinised. A desk-top assessment based solely on the preliminary information Gunns has presented in its referral would therefore be manifestly inadequate.

### **Independent integrated assessment abandoned – wood supply ignored**

The RPDC, in consultation with stakeholders, independent experts and the community developed guidelines for the assessment of Gunns' proposed pulp mill. Section 4.2 of the Final Scope Guidelines details what information and assessments the RPDC had requested of Gunns in regards to wood supply.<sup>17</sup>

The RPDC's guidelines required Gunns' to provide a range of information relating to the wood supply and the impact on native forests. For instance Guideline 4.2.1 (4) of the RPDC's Final Scope guidelines requires:

Details of any intensification of forestry operations in Tasmania (including conversion of native forest and the establishment of plantations on agricultural land (hardwood or softwood) and silviculture practices) for the supply of pulpwood of all types (from now until the end of the projected life of the mill), the likely environmental, social, economic and community issues and effects of any such intensification, and how those effects will be addressed.

The RPDC commissioned a number of independent groups to assess Gunns' Integrated Impact Statement including Beca AMEC, UniQuest, CSIRO and URS Forestry. As mentioned, URS Forestry reviewed Gunns wood supply information and were highly critical of the lack of information Gunns' had provided and disagreed with Gunns'

---

<sup>16</sup> URS Forestry Consultants report for the RPDC.

[http://www.rpdc.tas.gov.au/\\_\\_data/assets/pdf\\_file/70709/RPDC\\_-\\_URS\\_preliminary\\_report\\_11-10-06.pdf](http://www.rpdc.tas.gov.au/__data/assets/pdf_file/70709/RPDC_-_URS_preliminary_report_11-10-06.pdf)

<sup>17</sup> RPDC Final Scope Guidelines for the assessment of Gunns' proposed pulp mill.

[http://www.rpdc.tas.gov.au/\\_\\_data/assets/pdf\\_file/0020/66305/Final\\_IIS\\_guidelines2.pdf](http://www.rpdc.tas.gov.au/__data/assets/pdf_file/0020/66305/Final_IIS_guidelines2.pdf)

claims that there would be no intensification of logging as a result of the pulp mill<sup>18</sup>. More details of the URS report will be provided through this submission.

The Wilderness Society and other groups were also concerned with the lack of information provided by Gunns on the impact that the proposed pulp mill would have from its proposed wood supply. Wood supply was and is still seen as the major environmental impact of the proposal.

To ensure that the wood supply issue would be adequately addressed The Wilderness Society challenged the RPDC's guidelines at a Directions Hearing on the 25<sup>th</sup> October 2006. In response to The Wilderness Society's submission the RPDC determined that<sup>19</sup>:

- (i) the guidelines are adequate in that the proponent is required to address not only the social, economic and community impacts but also the environmental impacts relating to the supply of pulpwood to the proposed mill;
- (ii) the issues raised in the submission go not to the adequacy of the guidelines, but to the issue of how the proponent has addressed the guidelines in respect of this particular matter. What information the proponent provides in response to the broad requirement of the guidelines is a matter for the proponent and is a matter to be assessed during the hearing process;

With this determination the RPDC made it clear that Gunns was required to fully assess and provide evidence on the impact wood supply for the pulp mill would have on the environment, community and economy.

### **Gunns abandons independent assessment**

However, before this had occurred in March 2007 Gunns withdrew from the independent assessment. Following Gunns abandonment of an independent assessment the State and Federal governments established two separate fast-track assessments.

### **State Government fast-track assessment**

The State government 'approval', as the Premier regularly referred to it, was in two parts. An assessment of the proposal against the *Environmental Emission Limits for Any New Bleach Eucalypt Kraft Pulp Mill in Tasmania 2004* (emission guidelines) and an economic 'benefits' assessment.

Sweco Pic was engaged by the State government to assess the pulp mill against the emission guidelines, resulting in the publishing of a report<sup>20</sup>. Whilst the State Government treated the emission guidelines as the 'benchmark for world's best

---

<sup>18</sup> URS Forestry review of Gunns' IIS.

[http://www.rpdc.tas.gov.au/\\_\\_data/assets/pdf\\_file/0005/70709/RPDC\\_-\\_URS\\_preliminary\\_report\\_11-10-06.pdf](http://www.rpdc.tas.gov.au/__data/assets/pdf_file/0005/70709/RPDC_-_URS_preliminary_report_11-10-06.pdf)

<sup>19</sup> RPDC's determination relating to The Wilderness Society's submission on the Final Scope Guidelines. <http://www.rpdc.tas.gov.au/poss/pulp/whatsnew>

<sup>20</sup> Sweco Pic report (2007)

[http://www.justice.tas.gov.au/justice/pulpmillassessment/sweco\\_pic\\_report](http://www.justice.tas.gov.au/justice/pulpmillassessment/sweco_pic_report)

practice', the RPDC developed them as minimum environmental emission limits:

“meeting those requirements is not in itself sufficient to gain approval to build a mill”.... “proponents of pulp mills will be required to undertake studies that will enable them to demonstrate the suitability of a proposed site in terms of the mill’s ability to meet specified ambient criteria for air quality, water quality and biological condition”.<sup>21</sup> Where several sites are being considered, “...knowledge of their topography and meteorological characteristics, such as air stability and prevailing winds, will be required to discriminate between the sites”.<sup>22</sup>

The Sweco Pic report did not include an assessment of wood supply.

ITS Global were commissioned to look at 'economic benefits' of the pulp mill. ITS Global are also a public relations consultant for Malaysian logging giant Rimbunan Hijau, a major ANZ customer and a company who has had sustained repeated allegations of illegal logging and human rights abuses in PNG. Page 8 of the ITS Global report states that the consultants were not commissioned to look at forestry impacts<sup>23</sup>.

This Review does not consider any environmental considerations. This is beyond the scope of the Review.

ITS Global has not been asked to assess impacts on forestry and forest industries as part of this assessment.

Nor did ITS Global assess the negative impacts to other industries such as farmers, vintners, fishermen or tourism operators from the proposal. There has therefore been no cost/benefit assessment, despite wide spread concern of the negative impact Gunns' pulp mill would have on other industries and the Tasmanian economy.

The State government's facilitation of Gunns' abandoning the RPDC ensured that the major impacts of the pulp mill were not assessed and that there was no independent scrutiny of the project.

### **Federal Government truncated assessment**

Then Federal Environment Minister Malcolm Turnbull's assessment did not include impacts on native forests as he argues it is covered by the RFA. Mr Turnbull was also requested to refer the issue of greenhouse gas emissions caused by the pulp mill to the Chief Scientist for investigation. He refused. In fact, by his own admission, the criteria looked at in the Federal Government was extremely limited.

On the 19<sup>th</sup> of August 2007 Malcolm Turnbull wrote to the Tasmanian Premier Paul Lennon and criticised Gunns' and the State governments abandonment of the RPDC.

---

<sup>21</sup> RPDC, Recommended Environmental Emission Limit Guidelines For Any New Bleached Kraft Eucalypt Pulp Mill in Tasmania, Volume 2, D.3.1 and D.3.2, p.26

<sup>22</sup> RPDC, Recommended Environmental Emission Limit Guidelines For Any New Bleached Kraft Eucalypt Pulp Mill in Tasmania, Volume 2, D.3.5, p.26

<sup>23</sup> ITS Global report (2007) page 8.

[http://www.justice.tas.gov.au/justice/pulpmillassessment/its\\_global\\_report](http://www.justice.tas.gov.au/justice/pulpmillassessment/its_global_report)

Mr Turnbull, in commenting on the limited nature of the Federal Assessment, jurisdiction and public submission received said:

“The majority of submissions received during the federal process have raised issues that are outside the limited jurisdiction of the Commonwealth. These include concerns about the potential impacts of the proposed mill’s air emissions and the impact of effluent in Tasmanian waters and along the Tasmanian coast.”

Lawyers for Forests recently launched a new legal challenge to the Commonwealth approval of Gunns’ proposed pulp mill. The case focuses on the impact of the pulp mill on the marine environment and the inadequacy of the decision and the conditions placed on the mill in relation to the marine environment. The legal challenge will be a serious test for new Federal Environment Minister, Peter Garrett.

Malcolm Turnbull’s approval with included 48 conditions left a number of issues unresolved. It had been acknowledged by independent oceanographic experts such as Dr Stuart Godfrey<sup>24</sup> that Gunns’ modelling of effluent dispersion was inadequate and that when that modelling was done correctly it would show that the 64,000 tonnes of effluent would stagnate and at times wash up on beaches, into the Tamar River and out in the Commonwealth marine zone.

Gunns is yet to provide the scientific evidence including field tests required as part of the Federal government conditions. It would be particularly egregious if the ANZ agreed to provide finance for the mill until all outstanding matters have been addressed by the proponent and approved, or not, by the Federal Department of Environment. In any case, given the number of factors not assessed or inadequately assessed, The Wilderness Society does not believe that the mill meets the standards of environmentally and socially responsible investment.

---

<sup>24</sup> Dr Stuart Godfrey’s research on Gunns’ proposed pulp mill is available at: [http://www.cleantamar.com.au/pulp\\_mill\\_analysis.html](http://www.cleantamar.com.au/pulp_mill_analysis.html)

## 5. Intensification of forestry operations as a result of the pulp mill

The Wilderness Society in its September 2006 submission to the RPDC, and the consultancy firm URS in a report to the RPDC, identified either the likelihood or possibility of forestry operations being intensified as a result of the pulp mill.

In summary:

- When at full capacity, the mill will consume 4.5 million tonnes of logs per annum (4 million for pulping; 0.5 million for burning to generate power)<sup>25</sup>.
- At start-up, 80% of the wood will come from native forests. Gunns claims that this will drop to 20% as plantations come on line, but projections by the proponent could be very optimistic.
- Over 30 years this will cause the clearing of over 200,000 ha of native forests.<sup>26</sup>
- The mill will entrench destructive practices such as clearfelling; cable-logging of steep slopes; burning; and the replacement of native forests by plantation.
- Export woodchipping from Triabunna and Hampshire will continue. The overall rate of pulpwood production in Tasmania for Gunns will increase from 3.4 million tonnes in 2006-07 to almost 7 million tonnes per annum.
- A promise not to consume old growth is no guarantee. There are no requirements in legislation or in the approval conditions, or in the provisions in the draft wood supply agreement that preclude the use of old growth forests. If plantation projections are too optimistic, old growth forests (and other native forests) could be used to meet the shortfall

### **Insufficient plantations and native forest to supply pulp mill**

Dr Chris Beadle of the CSIRO made a private submission to the Environment Minister in which he argues that the appetite of the pulp mill could result in an increase of forestry operations above sustainable yield (see Appendix 3)

He points out that forestry operations in Tasmania have occurred at levels above sustainable yield because of the heavy levels of harvesting old forests (a one-off resource):

“I can only conclude that omitting independent scrutiny of the wood supply from the ongoing assessment of the proposal was a flawed decision. Please note that the RPDC-sponsored report referred to above did "not consider broad references to resource area and location [in the IIS] as sufficient demonstration of the sustainability of wood supply".

He concludes:

“The proposed pulp mill will place demands on Tasmania's production forests that will potentially overshadow demands from the other industries that rely on the same wood supply (such as sawn timber and veneer). Several of these not only add more value to the wood harvested, their products also lead to greater storage of carbon. Tasmania's production forests will have a more secure and sustainable future if they are managed in the first instance for such products rather than pulp. Current arguments against the mill are all about it being in the wrong place but it may also prove to be too large for the longer term benefit of Tasmania's forests and for a more balanced suite of forest and associated industries”.

<sup>25</sup> Gunns Integrated Impact Statement (IIS) 2006

<sup>26</sup> Wilderness Society conservative calculation based on Gunns IIS figures.

The recently released Sustainable Yield Review No. 3 shows that Forestry Tasmania intends to liquidate all mature native forest and older-aged regrowth by 2027. This is in the context of a proposed wood supply agreement between Gunns and Forestry Tasmania to supply 1.5 GMT per annum for 20 years for the pulp mill, largely from native forests. The wood supply agreement and logging plan taken together make it clear that promises to move quickly to plantations for the pulp mill wood supply are not credible.

The Wilderness Society therefore urges the ANZ to carry out a full inquiry into the wood supply for the pulp mill, including scrutiny of sustainable-yield calculations by Forestry Tasmania and Gunns, with respect to both plantations and native forests.

Impact of wood supply of Tasmania's native forests and endangered flora and fauna

The mill threatens forests in proposed reserves (Ben Lomond National Park extensions, Great Western Tiers, North-East Highlands, Blue Tier, Reedy Marsh, Eastern Tiers, Wielangta, proposed extensions to the Tasmanian Wilderness World Heritage Area, Tasman Peninsula and Bruny Island). Gunns claims that no old growth forests will be pulped. However, in a briefing with The Wilderness Society on 18 August 2006, Gunns confirmed that there is no upper age-limit for trees that can be pulped by the mill. The 'no old growth' pledge therefore provides no guarantee of environmental protection as it is open to misinterpretation, sleight of hand or incremental compromise.

According to figures in Gunns Annual Report 2007<sup>27</sup> their total woodchip exports for all of Tasmania were 3.4m GMT. The amount of wood needed to supply Gunns' proposed pulp mill when the pulp mill is operating at full capacity is more than the total of all woodchipping currently occurring in Tasmania. Yet as part of its IIS Gunns revealed plans to supply the pulp mill *and* to continue woodchip exporting. This represents a massive increase in forestry operations in Tasmania and would see an annual woodchip industry in Tasmania up to 7m GMT (See Fig 6-22 in Gunns' IIS – Vol.1 6-249).

### **Native forest based pulp mill despite modelling promises**

Gunns' IIS shows that the pulp mill supply will predominantly be based on Tasmania's native forests until, at the earliest of 2017 (see Gunns IIS image below) when they predict it will be 80% plantation based. However, Gunns' projections of plantations growth rates and plantation wood availability are unrealistic, based on overly optimistic plantation growth rates that are not being achieved.

---

<sup>27</sup> Gunns Annual Report 2007

<http://www.gunns.com.au/corporate/download/GunnsAnnualReport2007.pdf>

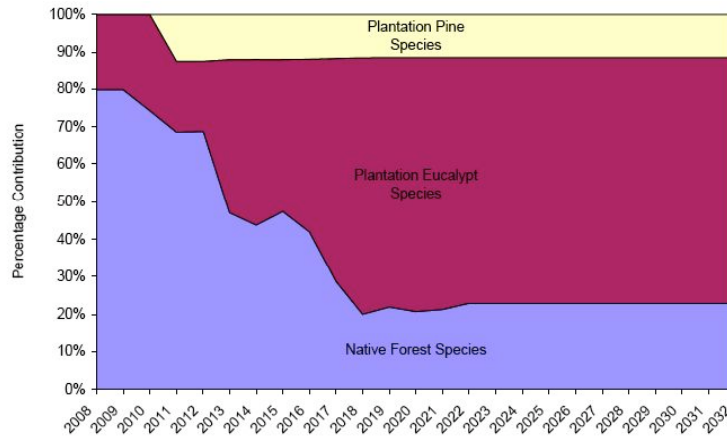


Figure 6-19 Likely Contribution over time of Pulpwood Species to Pulp Mill  
[Source: Gunns' pulpwood resource modelling]

For instance, because of recent droughts, plantations in Tasmania are growing much more slowly than initially predicted, The Bureau of Meteorology has this to say about Tasmania in 2006: "A parched island. This year will be remembered as one of the driest since records began. Along the north coast and into the southeast many sites have had their driest year on record - including Hobart, Launceston, Burnie and Devonport. Only in the southwest corner was rainfall close to average.<sup>28</sup>" Weather extremes are expected to become more frequent in Tasmania because of climate change impacts<sup>29</sup>, which could have a severe impact on MAI (annual growth) rates. The exact impact on rainfall patterns is not yet understood, however a Tasmanian state government model predicts a decrease by 8% in the North East over the next 30 years<sup>30</sup>.

With the huge volumes of wood Gunns require for a pulp mill of this scale, there are no guarantees that the transition to plantations will be followed and this claim must be independently and openly assessed. The draft wood supply agreement established between Gunns and Forestry Tasmania establishes pricing arrangements that provide a price differential between plantation wood and native forest that makes native forest wood half the price. The cost competitiveness of the mill is highly sensitive to the price. Under these pricing arrangements Gunns would have no incentive to increase plantation inputs.

In addition, Gunns have indicated in the Transport section of their IIS<sup>31</sup> that their major plantation estate, located at Surrey Hills in North-west Tasmania, will not be part of the feedstock of the pulp mill but be exported. Gunns has over 80,000 hectares of their own plantations at Surrey Hills. Gunns should be pulping their own plantations instead of destroying Tasmania's native forests.

<sup>28</sup> Bureau of Meteorology 03 Jan 2007

<sup>29</sup> 2006 Draft Climate Change Strategy for Tasmania, Department of Primary Industry and Water Tasmania.

<sup>30</sup> As above.

<sup>31</sup> Gunns IIS Volume 15 Appendix 43 Transport Assessment  
[http://www.gunnspulpmill.com.au/iis/V15/V15\\_A43.pdf](http://www.gunnspulpmill.com.au/iis/V15/V15_A43.pdf)



## Regional Forest Agreement (RFA)



Logging in Northeast Tasmania 2007. Photo: Rob Blakers.

State and Federal fast-track assessments of the mill were also inadequate because they did not assess the environmental impacts on rare and threatened species and World Heritage values of the forestry operations that will feed the pulp mill's 4.5-million-tonnes-per-annum appetite for wood.

However, in the Federal Court case *Brown vs Forestry Tasmania* (Wielangta case) Justice Marshall found that the forestry operations under consideration failed to protect species listed as threatened under the EPBC Act. The forestry operations under consideration at Wielangta were not appreciably different from other forestry operations carried out in the rest of Tasmania. Indeed, it could be argued that they were less environmentally damaging than most. The Tasmanian Government claimed that the verdict could impact on numerous other forestry operations in Tasmania. It is therefore likely or foreseeable that the pulp mill will be fed by forestry operations that are not in accordance with an RFA. Alternatively, if the approach of the Appeal Court is taken,<sup>32</sup> the forest operations may only be in accordance with the RFA because the RFA is not required to protect the environment – which, in conjunction with government failure to assess the impacts of the pulp mill on forests because of the RFA, means that there is effectively no environmental regulation in this area.

Regardless of the final outcome of the Wielangta case (the case seems likely to go to the High Court), the Tasmanian RFA expires in 2017. After that date, individual forestry operations would have to run the gauntlet of assessment under the federal EPBC Act and it is highly likely that many or most would be rejected. Renewal of the RFA would require state and federal governments of the day to agree.

It should also be noted that the RFA is silent with respect to greenhouse gas emissions and climate change. Any move by federal or state governments to reduce greenhouse gas emissions by protecting forests would not trigger the compensation provisions. These arguments are presented in more detail below.

<sup>32</sup> *Forestry Tasmania v Brown* [2007] FCAFC 186 (30 November 2007).



The intensification of already unsustainable forestry practices, which would be caused by the proposed mill is unacceptable and is a major reason why the ANZ should not fund the project.

## 6. Impact of the pulp mill on greenhouse gas emissions

*“Curbing deforestation (land clearing) is a highly cost-effective way of reducing greenhouse gas emissions and has the potential to offer significant reductions fairly quickly.”*

*Stern Review into Climate Change, October 2006.*

Native forests store large amounts of carbon in trees and other aboveground vegetation, roots and soil organic matter. Published data on actual carbon density and potential carbon carrying capacity is scarce but 300 year old Eucalyptus regnans forest can store on average approx 4400 t CO<sub>2</sub> per hectare. Logging results in most stored carbon being released to the atmosphere as CO<sub>2</sub> within a relatively short time through post-logging burning, burning and decay of processing waste and disposal of short-lived wood products (pulp being such a product). Even though the forest can regrow after logging, it would take centuries to recapture all the emitted carbon.

Highly conservative estimates say that the pulp mill will cause emissions of 10 Mt CO<sub>2</sub> per annum, equivalent to 2% of Australia’s total.<sup>33</sup> If native forest wood is used, total emissions will be much higher because Australia’s current carbon accounts omit soil carbon and severely underestimate total biomass in native forests. The older the forests, the worse the problem.

Emissions trading schemes will be introduced in Australia within the next two to four years. If not included initially, forestry is likely to be brought into the scheme fairly soon. New Zealand has already made the decision to do so and the two schemes are to be harmonised. With any reasonable price for carbon, native forest logging will be severely penalised and probably uneconomic. It should be noted that Professor Garnaut has recently said that in an emissions trading system spot prices for carbon ‘would not be low’ in the context of current Australian discussion and the long term price would be ‘high’.<sup>34</sup>

Even plantations are not necessarily carbon neutral – it depends on the rate at which they are logged. Australia’s pre-1990 plantation estate is a net emitter of carbon. The post-1990 plantation estate only appears to be carbon-positive because of rapid tax-driven expansion and the fact that most are not yet old enough to log.

With respect to Gunns’ proposed forest furnace, it is inconceivable that the Australian Greenhouse Office’s current approach to fuel combustion emission factors (where CO<sub>2</sub> emissions and all upstream emissions from wood combustion are ignored) will continue. A proper appraisal of the greenhouse impacts of wood fuel for the pulp mill or other purposes is imperative and comparisons of fuel combustion emission factors between fossil fuels and biofuels must be on the same basis.

Gunns is already over the thresholds requiring it to report its emissions and energy use under the National Greenhouse and Energy Reporting system. It is inevitable that the system will expand to full-carbon accounting and a proper assessment of the pulp mill and its emissions should be completed on this basis.

---

<sup>33</sup> Blakers, M, 2007, [www.greeninstitute.com.au](http://www.greeninstitute.com.au)

<sup>34</sup> Garnaut, R, 2007, Will climate change bring an end to the platinum age?  
[www.garnautreview.org.au](http://www.garnautreview.org.au)

An assessment of greenhouse gas emissions was part of the original RPDC process, but was dropped by both state and federal governments. ANZ has promised to support only projects that have been fully assessed. It would be a travesty if one of the biggest greenhouse gas emitters in the country were approved with zero assessment of its climate impact.

The impact of the proposed pulp mill on greenhouse gas emissions, and the failure of environmental regulators to assess such emissions, is another strong reason why the ANZ should not fund the mill. Even without all the other problems, consideration of the climate change aspects of the mill would be enough by itself to make the project environmentally questionable.

## **7. World Heritage**

The impact of the mill on World Heritage value forests is another major reason why the mill is environmentally problematic. The World Heritage Committee is concerned about the impact of forestry operations in Tasmania on the World Heritage area and has urged the inclusion of World Heritage value forests into the existing World Heritage area. As with greenhouse issues and forest issues generally, the impact of the mill on Tasmania's Wilderness World Heritage Area (WHA) has also not been assessed. It is critical that the ANZ give this issue consideration as part of its review.

### **Impacts of proposed pulp mill on World Heritage**

The proposed pulp mill, as outlined by the proponent Gunns in the EPBC referral, in its Draft IIS (July 2006), and in its Supplementary Information to the IIS (February 2007), will have severe negative impacts on World Heritage in Tasmania.

These severe adverse impacts occur in the following two areas:

- (i) Impacts on forests that occur adjacent to the WHA and which have documented World Heritage values;
- (ii) Impacts on the WHA itself and its World Heritage values.

These two issues are dealt with below.

### **Threatened Forests with Documented World Heritage values**

Over 25 years of operation of the pulp mill, thirty percent of its pulping feedstock will come from native forests in north-east Tasmania and six percent from native forests in south-east Tasmania (IIS, Vol. 1: 6-238).

A map in the IIS (Vol. 1: 6-227) shows that 'north-east Tasmania' includes the Great Western Tiers and Upper Mersey, while 'south-east Tasmania' includes large tracts of forest immediately adjacent to the WHA. These include the Styx, Weld, Florentine, upper Derwent, Counsel, Navarre and Picton valleys.

The above areas include large tracts of forest that have identified and documented World Heritage values. They also include places where logging will have an adverse impact on the adjacent WHA.

The forests concerned are amongst some of Tasmania's best-known wild places, from the Great Western Tiers to the high-altitude woodlands near Lake St Clair and the deep-forested valleys of the Styx and Huon. They include view-fields from famous walking trails such as the South Coast and Huon Tracks; from peaks such as Mt Rufus, Mt Picton, Hartz Mountains, Mt Field West and the Snowy Range; and from tourist roads such as the Lyell Highway and Gordon River Road. They include the forested ramparts of the Great Western Tiers and Central Plateau.

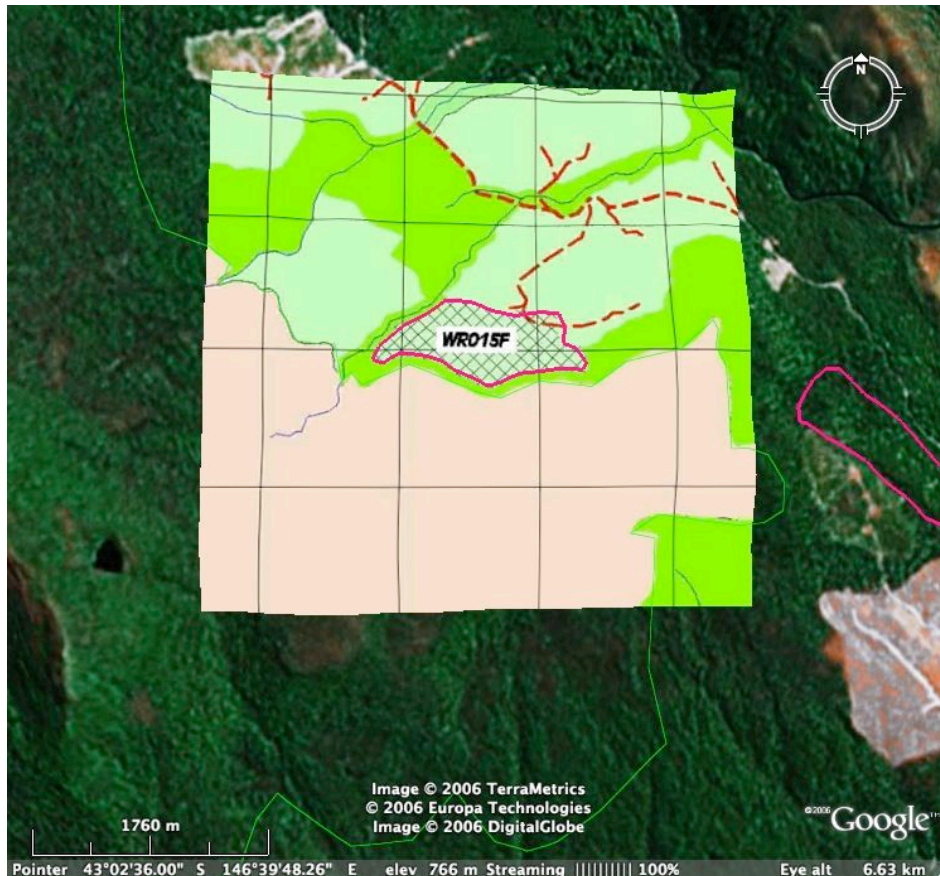
Threatened forests of World Heritage value immediately adjacent to the Tasmanian Wilderness World Heritage Area include:

- parts of the Great Western Tiers and Upper Mersey;
- the Navarre forests near Lake St Clair;
- the Derwent / Counsel River areas south of Lake St Clair;

- the forests of the lower Florentine and Blue Creek at the foot of Wylds Craig;
- the Upper Florentine Valley;
- Mt Wedge;
- Forests adjacent to the Mt Field National Park;
- The Styx valley;
- The slopes of the Snowy Range;
- The Weld valley;
- The Middle Huon;
- The Picton Valley;
- The Lune / Hastings / Esperance area.

Many of these areas occur as gulfs or cuts into the WHA. That is because the WHA's boundaries were deliberately drawn in a convoluted way so as to 'protect' unloggable high mountains or buttongrass plains and to exclude loggable forests.

The image below shows a Forestry Tasmania planned logging map overlaid onto Google Earth. The area encircled by the solid red line is logging coupe WR015F. The area shaded in beige is the WHA. As can be seen from the image logging is to occur in very close proximity to the WHA, threatening its values.



None of the above areas should be considered in isolation from the WHA itself. They are all part of one of the world's great temperate wilderness areas. For many years, conservationists have been arguing that this area should be treated as a unified whole, rather than as a sum of disparate parts.

Nevertheless, each extension contains values in its own right. Those values are listed in Appendix 1 (attached).

The pulp mill's massive requirement for native forests will cause these places to be roaded, logged and burnt. This will kill wildlife, permanently eliminate wildlife habitat, including for rare and threatened species, scar view-fields, destroy wilderness, and destroy ancient forests.

In other words, the pulp mill will destroy World Heritage values of places adjacent to the WHA. This is environmentally significant and alarming in its own right, but can also impact on the World Heritage Area itself.

### **Impacts of the Pulp Mill on the Tasmanian Wilderness World Heritage Area and its World Heritage Values**

Apart from having their own ecological importance, some of the forest areas listed above also have importance for maintaining the integrity of the existing World Heritage Area. Such integrity issues are as follows.

#### **Loss of wilderness**

The WHA relies on the remoteness and naturalness of its natural and cultural assets to maintain its integrity. In many areas, the boundary of the WHA does not protect wilderness even within the WHA. Examples of this occur down the eastern fringe, particularly in the Picton, Weld, Huon, Counsel and Upper Florentine valleys.

#### **Threats from forestry burning operations along the boundary**

After wet-eucalypt forests are logged, the remains of the forest are burnt. These regeneration burns are carried out during early autumn. Forestry authorities have recorded numerous examples of such burns escaping into forest, plantations or farmland downwind of the fire. Sometimes these escapes have burnt adjacent parts of the Tasmanian Wilderness World Heritage Area (1988 at Lune River, 1989 at Clear Hill and Lune River). The Commonwealth Department of the Environment (1993), Kirkpatrick (1994) and Blake et al (1995) have identified this as a threat to the integrity of the WHA particularly where the WHA occurs downwind and/or up-slope from forestry operations. One area where regeneration burning was identified as a particular threat was the East Picton. In January 2003, a fire caused by the logging operation itself burnt up-slope to within a few hundred metres of the WHA. Other areas where regeneration burning has been identified as a major problem include the Mersey, because of the proximity of such operations to the Walls of Jerusalem National Park (part of the WHA), and the Great Western Tiers, which are immediately up-wind and up-slope of the WHA.

There has been no systematic survey of threats to the integrity of the WHA from forestry operations or from other activities. Some of the reports referred to in Appendices 1 and 2 were carried out in response to specific proposals to log specific coupes, mainly in the Huon and Picton valleys. However, *The Appropriate Boundaries Report* has said that threats to its integrity from forestry operations occur in other areas such as Mt Wedge and the Upper Florentine.

The full list of reports relating specifically to integrity of the World Heritage Area are listed in Appendix 2, but obviously do not relate directly to the pulp mill. However, the impacts of the pulp mill on the WHA and its World Heritage values over the decades of

the pulp mill's operations come via the intensification of forestry operations. These impacts can be summarised briefly as follows:

- Threats to sensitive alpine vegetation from escaped regeneration burns and other forestry burns and destruction of biological values representing periods of the Earth's evolutionary history;
- Destruction of scenery visible from within the WHA equates to loss of superlative landscapes;
- Destruction of the integrity of wilderness areas within the WHA by roads and logging immediately adjacent to the WHA;
- Threats to the habitats of rare and threatened species (such as the Tasmanian wedge-tailed eagle) due to escaped forestry burn-offs.

These threats from forest operations are of particular concern to The Wilderness Society, and to the World Heritage Committee. At its 31<sup>st</sup> meeting (held this year in Christchurch in June) the World Heritage Committee urged the Australian and Tasmanian state governments to consider extending the boundaries to include critical old-growth forests with identified world heritage values. The Committee also requested a report on the impact of commercial forestry activities on the integrity of the World Heritage Area and resolved to send a delegation to assess the impacts in 2008.

This visit will be a welcome international spotlight on the nature of logging in Tasmania and is likely to raise many of the issues noted above in relation to the intensity of logging and the poor management practices. The pulp mill and its impact on forestry will be part of what can be anticipated to be a public debate around the visit of the World Heritage Committee because the potential impacts on Tasmania's World Heritage Area and World Heritage Values are another reason why the pulp mill is environmentally damaging.

## **8. Recommendations**

The ANZ banks should not fund Gunns' proposed pulp mill as it would lock in environmentally and socially destructive logging practices for generations to come. Gunns' has refused to amend or change the project despite intense and widening concern expressed in the Tasmanian and Australian community, including by independent pulp mill experts such as Dr Warwick Raverty and by groups such as the Australian Medical Association, Investors for the Future of Tasmania and The Wilderness Society.

In these circumstances, and with crucial issues like the impact on forests and climate change unassessed and officially ignored, the ANZ should find that funding of this mill is clearly economically, socially and environmentally inappropriate and unviable. We encourage the ANZ to lead a process to ensure a transition of Gunns' plans and operations to ensure sustainable forestry and environmental protection.



## Appendix 1: Documented World Heritage values of threatened forests

Value	Area displaying the value	Reference
Karst	Middle Huon	Drysdale and Taylor (2002); Tasmanian Government (2005)
	Styx	Calver 1989, Eberhard 1986, Clarke 2001
	Esperance / Lune (protected in 1997 RFA)	
	Weld	Butt 1987; Fulton 1987; Household and Davey 1987; recent discoveries Forestry Tasmania
	Mt Field	Kiernan 1971, Goede 1973, Household and Davey 1987
	Upper Florentine	Geomorphic reports by Sharples for Forestry Tasmania and Forest Practices Authority (2002-2005)
	Great Western Tiers (protected in 1997 RFA)	
Glaciation	Picton	Kiernan 1987
	Middle Huon	Colhoun and Goede 1979
	Snowy Range slopes	Kiernan 1987
	Mt Field	
	Mt Wedge	Kiernan 1987
	Counsel-Derwent	Kiernan 1985, 1987
	Navarre	Kiernan 1985
	Upper Mersey	Hannan 1989, Hannan and Colhoun 1987
Tall-eucalypt oldgrowth	Esperance	Parks, Wildlife and Heritage 1990
	Picton	Kirkpatrick 1986
	Middle Huon	Kirkpatrick 1986
	Weld	Kirkpatrick 1986
	Snowy Range slopes	
	Styx	Kirkpatrick 2004
	Upper Florentine	RFA World Heritage Panel 1997
	Blue Creek	Kirkpatrick 1986
	Counsel-Derwent	Kirkpatrick 1986, Kirkpatrick et al 1988
Huon Pine	Picton	Gibson 1986
	Huon	Gibson 1986
Other botanical	Picton	Whinam et al 1989
	Mt Wedge	Jarman et al 1984, Kirkpatrick and Dickenson 1984

	Navarre	Ireson and Greenslade 1989/90
Scenic	Middle Huon	Williamson 1987
	Mt Wedge	Parks Wildlife and Heritage 1990
	Upper Florentine	Parks Wildlife and Heritage 1990
	Navarre	Parks Wildlife and Heritage 1990
	Great Western Tiers	Parks Wildlife and Heritage 1990
Aboriginal heritage	Middle Huon	Recent discovery – Tas Aboriginal Land Council 2002
	Upper Florentine	Jones and Cosgrove 1987, Cosgrove 1989

**Appendix 2: Reports on threats to the integrity of the Tasmanian World Heritage Area.**

<b>Report</b>	<b>Issues raised</b>	<b>Outcome</b>	<b>Current situation</b>
IUCN Technical evaluation of the WH nomination 1989	Recommends inclusion of Counsel, Florentine, Styx, Weld, Picton, Huon. Concerns about integrity of WHA.	Small part of the Weld and Tiger Range added in 1989. Small additional areas protected subsequently.	Most of identified areas still available for timber extraction for pulp mill.
World Heritage Bureau 1989	As above	As above	As above
World Heritage Committee 1989	As above	As above	As above
Department of Parks, Wildlife and Heritage 1990	Upper Mersey, Great Western Tiers, Navarre, Derwent-Counsel, Blue Creek, Mt Wedge, Upper Florentine, Mt Field, Snowy Range slopes, Styx, Weld, Picton, Huon, Esperance	Report ignored by state and Commonwealth governments	Forestry operations proceeding or planned in many areas. Most still available for timber extraction for pulp mill.
Forest and Forest Industry Council Panel of Experts 1990	Issues of integrity raised as well as WH values in Upper Mersey, Great Western Tiers, Navarre, Derwent-Counsel, Blue Creek, Mt Wedge, Upper Florentine, Mt Field, Snowy Range slopes, Styx, Weld, Picton, Huon, Esperance	Small areas at Hartz, SE Cape and Navarre added to national-park system. Most of report ignored	As above
IUCN 1990	Call for extensions along eastern boundary	Call ignored by Commonwealth Government	As above
Commonwealth Dept of the Environment 1993, Minute 23 November 1993	Concerns about WHA integrity due to forestry operations in Picton and Huon	Ignored by Commonwealth Government	As above
IUCN 1994, 1995	Letters to Aust. Government 5 September 1994 and 17 March 1995 about impact of forestry operations on	As above	As above

	TWWHA		
World Heritage Centre 1994	Concerns about WHA integrity due to forestry operations in Picton and Huon	Government refers concerns to RFA process	As above
World Heritage Bureau 1994	As above	As above	As above
Kirkpatrick 1994	Concerns about WH integrity due to forestry operations in Huon, Picton and Mersey valleys	Referred to woodchip-export-licence renewal process	As above
Commonwealth Dept of the Environment 1994	Concerns about WHA integrity in Picton, Huon, Mersey and Mt Field.	Moratoriums placed on some coupes	As above
Blake et al 1995	Concerns about WH integrity due to forestry operations in Huon, Picton and Mersey valleys	Referred to DFA process	As above
Commonwealth Dept of Environment 1995 (DFA process)	Concerns about WHA integrity in Picton, Huon and Mt Field	Moratoriums placed on some coupes for duration of RFA process	As above
UNESCO World Heritage Centre 1996	Letter from Director to Australian Government, 8 January 1996	Reference to RFA process	As above
Tasmanian Conservation Trust 1997	World Heritage values identified in all proposed extensions to WHA	Part of RFA process	See below
RFA Panel on World Heritage 1997	World Heritage values in own right identified in Upper Florentine and Derwent/Counsel	Small parts of Upper Mersey and Great Western Tiers protected from logging by 1997 RFA. Small parts of Huon, Derwent-Counsel, Upper Florentine, Picton and Esperance added to national-park system by 1997 RFA.	Most areas still available for logging for pulp mill. Currently an unofficial moratorium on logging in Middle Huon due to karst and Aboriginal heritage
The Wilderness Society 2005	Letter to Aust. Environment Minister 1 March 2005 on World Heritage	Negligible progress on eastern boundary of the TWWHA	Most areas still available for logging for pulp mill

### **Appendix 3: The pulp mill: The forgotten issue is wood supply. By Dr Chirs Beadle.**

Dr Beadle is a professional forest scientist based in Hobart with 35 years' experience. Between 1997 and 2005 he was Manager of the Sustainable Management Programme in the Cooperative Research Centre for Sustainable Production Forestry (which ceased operations in 2005). This expression of concern represents Dr Beadle's own views and not those of his employing organisation, CSIRO.

Having observed the pulp mill debate in the media and watched it approach its climax this week I am concerned that a very key issue is being neglected. Can Tasmania's production forests produce enough wood to supply a world-scale pulp mill for the next few decades?

I have examined three key documents that were produced as part of the assessment process for the pulp mill: the Gunns Limited Integrated Impact Statement (IIS); an Expert Witness Statement prepared for Gunns Limited and an Independent Review of the IIS on Wood Flow Assumptions prepared for the Resource Planning and Development Commission. I also draw upon my own knowledge of the productivity of eucalypt plantations in Tasmania and their current capacity to supply pulpwood.

I have come to the conclusion that projected wood flows may not meet the requirements of the mill over its lifetime, and that supplying large amounts of wood to a pulp mill neglects consideration of existing and new opportunities to add greater value to wood. Kraft pulp mills, once operational, require wood on a continuous basis.

#### **WOOD SUPPLY AND FOREST TYPES**

In terms of the pulp mill's wood supply, there are two types of forests to be considered. The first is native forest, which has a large diversity of species. The second is planted forests, which are monocultures - that is, one species of tree is planted in rows.

Native forest can be classified based upon age. Old forest is usually over 100 years old and often includes trees that were present before white settlement. Regrowth forest is managed largely for eucalypt wood over rotations that average 50-100 years before they are harvested and regenerated.

Eucalypt plantations managed for pulpwood have short rotations and are harvested on average every 15 years.

Wood supply for the mill will be 90 per cent hardwood (eucalypts from plantations and mainly eucalypts from native forests). The remaining 10

per cent is softwood from pine plantations.

There is an intention to increase the proportion of wood supply to the mill harvested from plantations. In the absence of information to the contrary, all the wood will be harvested in Tasmania.

## WOOD SUPPLY AND PLANTATION GROWTH RATES

Some eucalypt species have very fast early growth rates and therefore lend themselves to short-rotation plantation forestry that is ideal for pulpwood production. In Tasmania two species are planted, *Eucalyptus globulus* and *E. nitens*. The preferred species is *E. nitens*, an exotic that originates from Victoria. Both are capable of very high growth rates when supplied with sufficient nutrients and water. However, nutrient and water supply limit growth rates in Tasmania. Low temperatures in winter also restrict growth and average harvestable yields are probably about 15 green metric tonnes per hectare per year (GMt/ha/year).

Simple arithmetic shows that about 260,000 ha of eucalypt plantations dedicated to pulpwood production would be required to meet the total wood supply for the mill which, when operating at full capacity, is stated to require 4 million GMt of wood to annually produce 1.1 million Mt of kraft pulp. If 10 per cent of the wood used by the mill was pine, the area required for eucalypts would be about 235,000 ha.

An average short rotation to harvest is about 15 years. If the mill opened in 2009, the only eucalypt plantation wood available at that time would be sourced from those plantations established in Tasmania by 1994: that is, about 25,000 ha. Hence there will be heavy reliance on native forest when the mill opens.

The rate of planting of eucalypt plantations has accelerated in the past 12 years and the estate in Tasmania is currently around 170,000 ha. However, about 45,000 ha of this area is managed in the first instance for sawn timber and veneer, and pulpwood is a by-product. The mill's proponents recognise that plantations will only provide part of the wood supply and so base their calculations on eucalypt and pine pulpwood being harvested from a 150,000 ha plantation estate.

Two points to note. First, the suggestion that the mill be located at Hampshire and be supplied only with plantation-grown timber would mean a much smaller mill than proposed unless plantation wood is imported from the mainland.

Second, any suggestion that the supply of wood from existing, maturing plantations in Tasmania can be increased to meet 100 per cent of the pulp mill's intake by 2017 is not correct.

## WOOD SUPPLY AND NATIVE FORESTS

Native forests are generally slower growing than plantations and average harvestable yields are around 3 GMt/ha/year. Average total sustainable wood yield from native forests harvested for wood production on both public and private land is probably between 3.5-4.0 million GMt/year.

Between 2000-2005 the total amount of wood harvested from these forests in Tasmania was about 5.1 million GMt/year including about 4.4 million GMt/year of pulpwood and 0.7 million GMt of sawlogs.

In short, current rates of harvesting exceed the long-term sustainable yield from this type of forest. Several factors have probably contributed to this being the case. One is that the areas harvested include old forest that has accumulated large amounts of standing timber. To this extent, it is a one-off resource.

When the mill opens the intention is to source 90 per cent of the wood supply from native forests (70 per cent) and plantations (20 per cent) in north-east Tasmania. The majority of wood costs are actually in harvesting and transport. Pulp is a world commodity product and any country is only competitive (particularly in the first world where cheap land and labour are not available) if wood cost is minimised. That is one of the reasons why the preferred site is the Tamar not Hampshire.

In 10 years, the proportion of wood supply for the mill from native forest in north-east Tasmania will have fallen from 70 per cent to 20 per cent of the total requirement, presumably because all that is left is what can be sustainably supplied from regrowth forests. Thus by 2018, the proponents forecast that 50 per cent of the wood will be harvested from plantations in north-east Tasmania. The rest of the wood supply will come from other parts of the state.

A comment was made recently in the media that "the wood supply is good". In the short term this may be the case, but only due to a reliance in part on old forests and confidence that the plantation estate established in Tasmania by 2005 will be able to provide about 75 per cent of the wood supply (3 million GMt/year) by 2020. The eucalypt plantation estate in Tasmania in 2005 was about 160,000 ha. After sawlog and veneer have been taken, the equivalent of about 130,000 ha of this is available to supply hardwood pulpwood; thus there is a shortfall of about 1 million GMt in 2020. Up to 0.4 million GMt of this may be pine but there is still a potential shortfall of 0.6 million GMt. In other words, plantations will be unable to supply the mill's wood requirements at the levels suggested.

I can only conclude that omitting independent scrutiny of the wood supply from the ongoing assessment of the proposal was a flawed decision. Please note that the RPDC-sponsored report referred to above did "not consider broad references to resource area and location [in the IIS] as sufficient demonstration of the sustainability of wood supply".

## WOOD SUPPLY AND OTHER USERS

The proposed pulp mill will place demands on Tasmania's production forests that will potentially overshadow demands from the other industries that rely on the same wood supply (such as sawn timber and veneer). Several of these not only add more value to the wood harvested, their products also lead to greater storage of carbon. Tasmania's production forests will have a more secure and sustainable future if they are managed in the first instance for such products rather than pulp. Current arguments against the mill are all about it being in the wrong place but it may also prove to be too large for the longer term benefit of Tasmania's forests and for a more balanced suite of forest and associated industries.