



Referrals Section (EPBC Act)  
Approvals and Wildlife Division  
Department of the Environment and Water Resources  
GPO Box 787  
Canberra ACT 2601

April 17, 2007

**By email: [epbc.referrals@environment.gov.au](mailto:epbc.referrals@environment.gov.au)**

Dear Sir/Madam

**Re: Bell Bay Pulp Mill, Referral Notice No. 2007/3385**

On behalf of the Launceston Environment Centre I hereby provide comments on *Referral Notice No. 2007/3385* by Gunns Pty Ltd. (the proponent) to build and operate a bleached kraft pulp mill near Launceston, Tasmania.

## **1. Introduction**

Pursuant to S75 of the *EPBC Act*, we believe the referral put forward by the proponents to build and operate a bleached kraft pulp mill near Launceston should be declared a controlled action by the Minister as the project will have a significant impact upon:

- ⇒ Matters of national environmental significance; and
- ⇒ The environment of the Commonwealth of Australia

Our submission will demonstrate that the following provisions for calling a controlled action under the *EPBC Act* are triggered by the proponents' referral to the Commonwealth:

1. Actions that may have significant impact on listed threatened species or endangered communities
2. Actions that may have significant impact on listed migratory species
3. Actions in Commonwealth marine areas that may have a significant impact on the environment
4. Actions prescribed by the regulations that are of national environmental significance

We have reached the conclusion that pursuant to S75 of the *EPBC Act*, the Minister must declare the project a controlled action as the impacts will be significant. Pursuant to Part 3 of the *EPBC Act*, the LEC believes the impacts will be significant for the following reasons:

- ⇒ The significant direct and indirect impacts of the proposal;
- ⇒ The frequency and duration of the environmental impacts upon matters of national environmental significance and the environment of the Commonwealth of Australia;
- ⇒ The sensitivity of the receiving environments of the impacts of the proposal;
- ⇒ The degree of confidence with which the impacts are known and understood is in several cases, including those upon threatened and migratory species and Commonwealth marine areas, so minimal that further independent investigations are necessary.

Within Commonwealth marine areas, we believe the following issues consistent with the 2000 Guidelines must be investigated:

- ⇒ The possibility of a substantial adverse effect on a population of a marine species including its life cycle and spatial distribution;
- ⇒ There will be a substantial change in water quality which may adversely impact on biodiversity, ecological integrity, social amenity or human health; and
- ⇒ There is a strong likelihood of persistent organic chemicals, heavy metals, or other potentially harmful chemicals accumulating in the marine environment.

## **2. Inadequate Risk Assessment**

It is difficult to assess adequately the level of environmental impacts from the proposed pulp mill due to the inadequate risk assessment presented by the proponents in their IIS documentation.

Within the existing documentation, the Environmental Impact Assessment (EIA) methodology is neither specifically defined nor justified with literature. There are a number of drawbacks to this approach. Firstly, the relationship between impacts is not clear. This includes the relationship between different environmental impacts, but also the relationship between environmental, social and economic impacts, which cumulatively could have a greater impact when combined than taken separately.

The criteria used to evaluate the impacts are not always compatible, as they are not ranked or defined and are imprecise in their calculation of impact. As a result, the number of categories to be reviewed is immense thus distracting from the most significant impacts, and preventing an adequate distilling and appreciation of:

- A. the real impact; and
- B. the most appropriate mitigation strategy.

Finally, this means that rather than being an example of world's best practice, the identification of effects becomes qualitative and subjective (Westman 1985).

The EIA approach taken by the proponent's would not stand up to scrutiny according to established methodologies for EIA worldwide. There are two areas that need further analysis in relation to the methodology chosen (i) the EIA method chosen for the entire

Therefore, after considering the available documentation, the LEC argues that the proponents are unable to demonstrate to the Commonwealth that there will be no significant impact upon either matters of national environmental significance or upon Commonwealth marine areas.

On this ground alone the project must be declared a controlled action and at the very least an assessment by EIS is warranted. However, the previous bilateral process received 780 submissions which shows a high levels of public interest in this matter meaning an assessment by public enquiry would be the more reasonable approach.

### 3. Impacts on threatened species

Pursuant to Part 3 of the EPBC Act, the LEC believes there will be significant, ongoing impacts upon threatened species. The proponents have failed to demonstrate how they will mitigate or prevent these impacts.

As discussed below in section 6 of our submission, the proponent's have failed to take into account the significant environmental impacts from their logging operations. The proponent's will source 2 million tonnes of timber a year from areas sourced outside of the RFA process<sup>1</sup> These operations have been found to have a significant impact upon the following EPBC listed species:

- ⇒ Broad-toothed stag beetle
- ⇒ Wedge-tailed eagle
- ⇒ Swift parrot

The Pulp mill site itself appears to be a threatened species "hotspot". There are at least 10 threatened flora species at the pulp mill site, of which 6 will be impacted and another 5 may be. The Water Supply Pipeline also has at least 10 threatened flora species. The Effluent Pipeline also passes through a threatened species "hotspot" which may have national conservation significance, with at least 2 threatened flora species of National and State significance.

The threatened species that may be significantly impacted upon include:

- ⇒ Green and Golden Frog (*Litoria raniformis*)
- ⇒ Northern Quoll (*Dasyurus maculatus maculatus*)
- ⇒ Eastern barred bandicoot (*Perameles gunnii gunnii*)
- ⇒ Tasmanian devil (*Sarcophilus harrisii*)
- ⇒ Australian grayling (*Protroctes maraena*)
- ⇒ Tailed spider-orchid (*Caladenia caudate*)
- ⇒ Purple clover, Clover glycine (*Glycine latrobeana*)
- ⇒ Xanthorrhoea arenaria

Many of the impacts upon threatened species by the mill have also been inadequately researched. For example, research into the presence of the (EPBC listed) Green and Gold Frog were conducted by a calling detection method. However, the research was

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<sup>1</sup> See *Brown v Forestry Tasmania (no4)* BC200610561.

conducted at a time of year when the frog is least likely to be calling. Therefore, the Minister should declare the project a controlled action on the grounds that impacts upon threatened species have been inadequately researched.

From a vegetation community perspective, Table 1 below, outlines the threatened vegetation communities that will be cleared should the project proceed.

Although these are State listed vegetation communities, their clearance would be described as a key threatening process under EPBC S183 (3) and the impact would trigger EPBC S183 (4) (b) and (c).

The Commonwealth should therefore declare the planned clearing of the vegetation communities listed below in Table 1 a controlled action under EPBC.

**Table 1: Threatened vegetation communities to be destroyed by infrastructure associated with the proposed mill.**

<b>Vegetation community</b>	<b>TASVEG code</b>	<b>Conservation status</b>	<b>Area to be destroyed (ha)</b>
<i>Eucalyptus ovata</i> forest and woodland	DOV	Endangered	12.5 (+ 6.0 in future)
<i>Eucalyptus amygdalina</i> forest and woodland on sandstone	DAS	Vulnerable	7.2
<i>Allocasuarina littoralis</i> forest	NAL	Rare	3.6
<i>Melaleuca ericifolia</i> swamp forest	NME	Endangered	6.7
<i>Notelaea-Pomaderris-Beyeria</i> forest	NNP	Endangered	<0.1?
<i>Eucalyptus viminalis</i> wet forest	WVI	Endangered	0.4
Riparian scrub	SRI	Vulnerable	<0.1?
Rockplate grassland	GRP	Endangered	<0.1?
Freshwater aquatic sedgeland and rushland	ASF	Vulnerable	1.4
Lacustrine herbland	AHL	Vulnerable	0.3

### 3.1. Other key threatening processes

The following EPBC listed key threatening processes have either been dealt with inadequately by the proponents or not at all and should therefore trigger a controlled action declaration by the Minister:

- ⇒ How the proponent proposes to abide by the Threat Abatement Plan on the management of infection of amphibians with chytrid fungus resulting in chytridiomycosis;

- ⇒ Dieback caused by the root-rot fungus (*Phytophthora cinnamomi*), especially how they will prevent the spread of the disease during the construction of the water pipeline from Trevallyn, the effluent pipeline from the mill site to Bell Buoy Beach and on the mill site itself.
- ⇒ Predation of the European Red Fox. Clearing of habitat of the Tasmanian Devil resulting in a local extinction, could result in an opportunity for the European Red Fox to establish itself in and around the mill site. European Red Foxes in Tasmania is an emerging issue and all measures, including EPBC, should attempt to prevent its further spread. The degree of knowledge in this area is so limited that the Commonwealth should seek further information in this area.

#### **4. Impacts on migratory species**

The impact upon migratory species is very poorly covered in the available documentation.

The impacts upon migratory species covered by international agreements, such as JAMBA and CAMBA are poorly understood and poorly covered by the available documentation.

The impact upon marine migratory species through Commonwealth waters is very poorly covered in the available documentation.

A basic EPBC search details the following migratory species likely to be impacted upon within a 2km buffer of the mill site:

- ⇒ White-bellied sea eagle (*Haliaeetus leucogaster*)
- ⇒ White throated needletail (*Hirundapus caudacutus*)
- ⇒ Satin Flycatcher (*Myiagra cyanoleuca*)
- ⇒ Great egret (*Ardea alba*)
- ⇒ Cattle egret (*Ardea ibis*)
- ⇒ Ruddy turnstone (*Arenaria interpres*)
- ⇒ Latham's snipe, Japanese snipe (*Gallinago hardwickii*)
- ⇒ Fork-tailed swift (*Apus pacificu*)

The referral document fails to detail how it will mitigate any impacts upon migratory species so therefore under s20 of EPBC the Minister should declare this project a controlled action.

As with a great majority of the information relating to significant impacts upon matters covered by EPBC, the proponent appears to have felt it is enough to merely make a list. With regard to migratory species, creating a list of likely species impacted upon will not prevent a significant impact upon them. Therefore, the Minister should declare the likely impacts upon migratory species a controlled action as the impacts are poorly understood.

The Minister should also declare the impacts upon migratory species a controlled action pursuant to S34E 1 (ii) and (iii) as the proponents have not presented adequate documentation to demonstrate how they will prevent breaches in Australia's international

obligations pertaining to JAMBA and CAMBA. Further, the Minister should not be satisfied that the proponents have presented information that can satisfy S34E 1 (b).

## **5. Impacts on Commonwealth marine waters**

### **5.1. The Effluent Discharge Pipe**

The proposed effluent outfall pipe will discharge within State Waters as defined by the S24 of EPBC however we believe the proponents have failed to demonstrate the discharged effluent will not impact upon Commonwealth marine waters. This is for the following reasons.

Firstly, there will be a significant reduction in water quality which we will demonstrate below will impact upon Commonwealth marine waters.

The submission to the RPDC by the LEC and others, including the eminent Bass Strait specialist Paul Sandrey<sup>2</sup> from Flinders University, clearly demonstrates there are significant inadequacies in the three reports commissioned by the proponents to examine marine impacts.<sup>3</sup>

A key area of concern and of particular relevance to EPBC is the lack of realistic modeling concerning the flushing of Bass Strait. In the available documentation, the proponents claim the effluent discharged into the Strait will be mixed in the mixing zone on a volumetric basis. However, Mr. Sandrey presents a different picture where he argues the reality is that the effluent will be discharged as a plume with increased intensity the closer to the diffuser you are.

This presents a significant challenge for the proponents to show that there will be no impact upon Commonwealth marine areas as the concentrates of pollutants will not, as they suggest, merely mix and dilute, but will instead spread in the shape of a plume away from the discharge pipe, and at certain times of the year concentrate on the surface.

This is an area that the Commonwealth should seek greater clarification for as Mr. Sandrey suggests:

The flushing of Bass Strait as a whole is not accounted for in the IIS. Recent three dimensional modelling simulations over many years suggest that the flushing of Bass Strait, which is related to water age distribution is a seasonal process and remnant water not flushed out each winter remains through the summer (Sandery and Kämpf, 2006)<sup>4</sup>

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<sup>2</sup> Paul Sandery, Submission to the RPDC, Submission number 32 from [http://www.rpdc.tas.gov.au/\\_data/assets/pdf\\_file/69082/32\\_Paul\\_Sandery.pdf](http://www.rpdc.tas.gov.au/_data/assets/pdf_file/69082/32_Paul_Sandery.pdf) viewed on April 16, 2007.

<sup>3</sup> See Hydrodynamic modelling associated with development site in Bell Bay by GHD; Marine Biological Study at proposed ocean outfall site in Bass Strait by AQUENAL PTY LTD; and Toxicity Assessment of a Pulp Mill Effluent for the Proposed Tasmanian Pulp Mill by ECOTOX Services Australasia.

<sup>4</sup> Above n 3, p.3.

The Commonwealth should also seek greater clarification from the proponents regarding inadequacies in the length of their study, the time of year it took place and their failure to account for other literature in the field. For example, the proponents claim after a two week study of mixing rates in Bass Strait that 3km offshore in a depth of 13 meters, Bass Strait is well mixed throughout the year. However, Mr. Sandrey argues this is an inadequate study period and does not truly reflect how Bass Strait functions as a body of water.<sup>5</sup> He argues that the modeling employed by the proponents should not be used to justify how Bass Strait mixes throughout the year and that:

The depth-averaged model assumes pollutant concentrations are mixed uniformly over the entire water column in Bass Strait at all times of the year. This approach may only be justified in winter and spring.<sup>6</sup>

Mr. Sandrey also argues that:

There is evidence that a shallow warmer surface mixed layer up to approximately 40 m depth exists throughout summer over most of the deeper Strait interior. The effluent is of much lower density than seawater so pollutant concentrations at this time of year could be confined to the surface mixed layer and would be higher than suggested by a depth-averaged model [and] the result for residual currents for Nov-Jan 2006 (Fig D-25) shows a stationary eddy. Eddies are associated with low flushing.<sup>7</sup>

This information at complete odds with the information provided within the proponents documentation. Given Mr. Sandrey's research into Bass Strait flushing rates is long standing and credible, the Commonwealth should declare the project a controlled action as the degree and extent of impacts upon Commonwealth marine areas are unknown and merit further independent investigations.

## **5.2. Persistent Organic Chemicals**

A critical area of uncertainty in this area, and one relevant to EPBC is the issue of dioxins and furans being released into the environment. These are extremely toxic pollutants produced during the making of pulp. These pollutants accumulate over time in biota and are passed up the food chain and only a very small amount of these pollutants are harmful to most organisms.

The problem we identify with the proponent's EPBC referral in this area is twofold. Firstly, there is no base-line data regarding the health of marine species in Commonwealth waters where it can be reasonably expected for the effluent plume to spread to, particularly in the summer months.

Secondly, existing documentation predicting the release of levels of persistent organic chemicals to be released into the environment claims they will be beyond detection limits. As a result no analysis has been done to suggest what the impact of these toxins may be on the marine environment over time.

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<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid

This is a critical area requiring greater analysis as dioxins and furans do bio-accumulate over long periods of time. This is clearly a major flaw by the proponents and they should be made to demonstrate how they propose to prevent the build up of persistent organic chemicals in Commonwealth marine areas over time.

Impacts from the build up of these chemicals on threatened marine species, such as the (EPBC listed) Australian Fur-seal which are likely to hunt in the area of the discharge, may also occur as they are known to bio-accumulate in mammals. Again, information on this area in the proponent's EPBC referral is non-existent and the Commonwealth should declare the action controlled to seek that data and identify mitigation measures to prevent a significant impact.

The proponents have failed to demonstrate how the discharge of pollutants into Bass Strait will not contravene the Stockholm Convention on Persistent Organic Pollutants and should therefore be declared a controlled action.

Other impacts in Commonwealth marine waters that require further investigation are the possible impacts upon Tasmania's fishing industry. The Tasmanian Fishing Industry Council claims there is a commercial scallop bed within 2 kilometers of the proposed effluent discharge pipe.

Studies suggest that significant levels of concentration of effluent (50%) can be fatal to scallops<sup>8</sup>. Therefore, it would be reasonable to request from the proponents an explanation of how they would deal with an incident where high levels of effluent were discharged into the marine environment, how they would manage this and how they would prevent significant impacts upon Commonwealth marine waters and the natural resources found within.

This level of detail should be required by the Minister as the proponent's have no experience in running pulp mills.

### **5.3. Threatened Marine Species**

The area currently around the effluent discharge pipe has a high level of environmental health, despite some evidence of contamination. The proponent's referral raises a number of issues related to the potential long-term impacts upon threatened marine species.

A range of threatened cetaceans, pinnipeds and sharks may occur periodically and a high conservation value (EPBC listed) Australian Fur-seal breeding colony at Tenth Island is located just 12 km from the discharge pipe. The only threatened species known to inhabit the area of the discharge pipe is called the Gunns screw shell (*Gazameda gunnii*).

Therefore, the LEC argues that the proponents have not demonstrated that the project will not have a significant impact upon marine threatened species and the:

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<sup>8</sup> LEC Submission to the RPDC, September 25 2006, p.23

- ⇒ impacts of this development on the Gunns screw shell;
- ⇒ long-term impacts of effluent discharge on marine ecosystems on and surrounding the discharge point; and
- ⇒ significant impacts upon the Australian Fur-seal colony.

## 6. Common Law reasons to declare the project a controlled action:

The proponents referral has failed to address the common law pertaining to the *EPBC Act*. Most notably, the issue of harvesting the pulp wood supply and the impact this will have upon threatened and migratory species. The proponents state:

“the [EPBC] referral does not include the impact of forestry operations undertaken for the supply of pulpwood to the mill [because] it [is] impossible to meaningfully predict where forestry operations will take place after 2017 [and] accordingly, it is speculative to consider that any forestry operations undertaken after 2017 for the purpose of supplying pulpwood to the mill are likely to have a significant impact on matters protected by the EPBC Act”.<sup>9</sup>

We would argue that this is a ludicrous proposition and operating outside of the law of Australia. It is our understanding that in the first 10 years of operation, 80% of timber will be sourced from native forests, and as discussed in the proponent’s referral document, 2 million tonnes of timber will be sourced from native forests through a supply contract with Forestry Tasmania<sup>10</sup>. This has significant implications relating to the EPBC Act when you take into account the judgment in *Brown v Forestry Tasmania (no4)* BC200610561. In that case, the Federal Court of Australia found that:

“Forestry Tasmania does not have an exemption from relevant provisions of the EPBC Act by virtue of exemption provisions in s 38 of that Act and s 6(4) of the RFA Act. This is because the Court has formed the view that the relevant forestry operations will be, and have been, carried out otherwise than in accordance with the RFA”<sup>11</sup>.

Failing to take into account this judgment is a major omission by the proponents as the case found that Forestry Tasmania operations, from which Gunns will be obtaining 2 million tonnes of timber per year to feed the mill for the first 10 years of operation, will be harvested outside of the terms of the Regional Forest Agreement (RFA) and are therefore not exempt from provisions in s38 of the EPBC Act<sup>12</sup>.

Although recent amendments to the Tasmanian RFA have been made, we would argue that the proponents failure to signal how harvesting in Tasmania’s native forests will be conducted in a way that does not impact upon the threatened and migratory species identified above requires the Commonwealth to declare this proposal a controlled action.

<sup>9</sup> Gunns Ltd., Referral of proposed action, March 07, p.8.

<sup>10</sup> Ibid

<sup>11</sup> *Brown v Forestry Tasmania (no4)* BC200610561.

<sup>12</sup> Ibid

We recommend that the Australian Government conducts an assessment of forestry operations related to supplying timber to the pulp mill via an EIS or Public Enquiry.

Anything less at this stage in the process could be seen within the law as a breach of the Act as *Brown v Forestry Tasmania (no4) BC200610561* states that Forestry Tasmania logging operations are operating outside of the realm of the Tasmanian RFA which we argue should trigger a controlled action finding under S75 of the EPBC Act.

The proponents claim that they have not included the wood supply in the EPBC referral as the timber will be sourced under EPBC S38 exemptions and that they are unable to determine where the source of the timber will come from after the expiry of the RFA in 2017.

The Commonwealth must insist upon a detailed report asking the proponents to show how they will not breach the EPBC Act after 2017 as the mill has an operating life of at least 30 years. If the proponents are unsure of the source of the timber for the mill then serious questions over their ability to build and operate such a large project must be asked.

## **7. Conclusion**

The LEC makes the following recommendations based upon our submission.

1. The Minister makes a decision pursuant to S391 of the EPBC Act when deciding under S75.
2. The Commonwealth makes a decision under S74B of the EPBC Act that on the basis of the information provided by the proponents the project will have an unacceptable impact upon matters protected by Part 3 of the Act.
3. If a declaration under S74B is not made, then under S75 of the Act declare the project a controlled action due to significant impacts upon matters identified in Part 3 of the Act.
4. After the Minister has declared the project a controlled action, under S87 of the Act, choose an assessment by public inquiry or EIS to assess the project.

We look forward to hearing from you regarding this matter and please acknowledge receipt of our submission.

Yours faithfully

Rob Palmer  
(LEC Coordinator)