

**Protecting the marine environment in the Tasmanian Pulp Mill policy process**

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# Protecting the marine environment in the Tasmanian Pulp Mill policy process

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## Abstract

*This paper examines how effectively marine issues have been assessed in the proposed Tamar Valley pulp mill policy process. The levels of dioxins in the effluent, their long term effects on marine life, and the 'backwash' of effluent back into the coastal regions and the Tamar River, are some marine issues that have become a source of contention amongst marine/fisheries lobbyists and pulp mill supporters. These issues were assessed in various degrees through the Resource Planning and Development Commission (RPDC), Pulp Mill Assessment Act (PMAA) and Commonwealth Pulp Mill Review (under the Environment Protection and Biodiversity Conservation (EPBC) Act) processes since 2003. This paper analyses the Tasmanian and Commonwealth government's policy approaches to deal with the impact of the pulp mill on the marine ecosystem. It is argued that after the RPDC process was abandoned, the marine issues have not been a priority for the Tasmanian government. While the Commonwealth is currently reviewing the pulp mill's impact on the marine ecosystem, it is limited to assessing the impacts under the EPBC Act. The Commonwealth review has so far not prevented the pulp mill from being built.*

## Introduction

Over fifty islands are located in Bass Strait including the larger King and Flinders Islands. This relatively small area of sea that separates mainland Australia and Tasmania is approximately two hundred and fifty kilometres wide (Weaver 1987, 685) and is known for its unpredictability – one day calm, and the next day monstrous seas that break large yachts in half (as was witnessed in the Sydney to Hobart Yacht Race of 1998) (BBC 1998). The Tamar Estuary flows into the Bass Strait and both waterways provide unique marine ecosystems for a variety of species of flora (including kelp forests and seagrasses) and fauna (including fish, shellfish, molluscs, seabirds and seals), some of which have been protected by Tasmanian and Commonwealth legislation.

The bank of the Tamar Estuary was announced as the preferred location for a pulp mill in February 2005 by the Tasmanian forestry company Gunns. Following this announcement, stakeholders became concerned with what effects the mill would have on the marine environment. These stakeholders include individuals and groups involved in the fisheries and environmental sectors; non-governmental organisations; business groups; and Tamar residents (from here forth referred to as marine stakeholders). Their main concern is based on the estimated thirty billion litres of Pulp Mill effluent that will be released into the Bass Strait each year if the mill is built and the effects it would have on the marine ecosystems of the Tamar Estuary and the Bass Strait (Buckman 2008, 139). The levels of dioxins (highly toxic chemicals) in the effluent, their long term effects on marine life, and the 'backwash' of effluent back into the coastal regions and the Tamar Estuary, have become a source of contention amongst marine lobbyists and pulp mill supporters.

This paper examines the Tasmanian and Commonwealth government's policy approaches to deal with the impact of the pulp mill on the marine ecosystem. It begins with an overview of the jurisdictional responsibilities in the context of ocean and marine resource issues in the

Bass Strait and Northern Tasmanian coastal areas. This framework and recent oceans and coastal policies outline the legal boundaries for the Tasmanian and Commonwealth governments regarding marine and fishing activities within the Bass Strait and coastal areas of Northern Tasmania. The paper then analyses the Resource Planning and Development Commission (RPDC), Pulp Mill Assessment Act (PMAA) and Commonwealth Pulp Mill Review (under the *Environment Protection and Biodiversity Conservation* (EPBC) Act) processes from 2003 to 2009. It demonstrates that after the RPDC process was abandoned, the marine issues have not been a priority for the Tasmanian government. While the Commonwealth is currently reviewing the pulp mill's impact on the marine ecosystem it is limited to assessing the impacts under the EPBC Act. Moreover, it argues that some of the evidence regarding the effects of the pulp mill on the marine environment has been 'flexibly interpreted' (see Evans 1997, 396) by decision makers.

### **State and Commonwealth responsibilities in the Bass Strait and Tasmanian Coastal Zones**

The following policies outline the State and Commonwealth responsibilities in the management of the ocean and coastal areas that may be affected by the proposed pulp mill. The Constitutional arrangements dealing with fisheries and ocean boundaries are first outlined in this section, followed by Fisheries arrangements that were agreed upon through the Offshore Constitutional Settlement. Tasmanian Coastal Policy, Australia's Oceans Policy, Marine Protected Areas and the EPBC Act are also briefly reviewed in the context of marine environmental management. This review demonstrates that there are a myriad of state and Commonwealth policies that are in place to manage the marine environment adding to the complexities of the pulp mill policy process.

#### *Constitutional arrangements*

The Act of Federation (1901) provided for a clear distinction between the Commonwealth, state and Territory jurisdictional responsibilities. The states' ocean jurisdiction begins from the low water mark to three nautical miles<sup>1</sup> offshore or the 'territorial limit'. The Commonwealth's jurisdiction begins from three nautical miles and extends to two hundred nautical miles to the boundary that is known as Australia's Exclusive Economic Zone (see Haward and Vince 2008, 100). The Australian states were, and continue to be, responsible for activities relating to the administration of ocean and marine resources whilst the Commonwealth's exclusive powers are limited to regulating fisheries beyond territorial limits and external affairs through Section 51 (x) and (xxix) of the Constitution. The Commonwealth powers are limited to external affairs, defence, 'suasion towards common standards and the provision of funding for various conservation and development programs' (Davis 1996, 26). The Commonwealth also has concurrent powers with the states that allow for shared responsibility horizontally and vertically across governments over maritime issues (Mathews 1975, xvii). However, the State and Commonwealth's fisheries responsibilities, some of which are located in the Bass Strait, have been further defined through the negotiations of the Offshore Constitutional Settlement.

#### *The Offshore Constitutional Settlement and Fisheries*

Since Federation there have been a number of jurisdictional disputes between the Commonwealth and states over offshore matters. The height of intergovernmental conflict was demonstrated through the enactment of the *Seas and Submerged Lands Act* 1973 where the Commonwealth asserted jurisdictional control from the low water mark, which until then had been under the control of the states. Following a High Court Case in the Commonwealth's favour, the Commonwealth and states then entered negotiations and agreed

upon the Offshore Constitutional Settlement (OCS) where the states regained their original jurisdiction from the low water mark (or 'state waters') to the three nautical mile boundary through the legislative arrangements (see Haward 1989). This boundary was reinforced by the *Coastal Waters (State Powers) Act 1980* and *Coastal Waters (State Titles) Act 1980*.

The 1979 Offshore Constitutional Settlement (OCS) came into force in 1983 and it outlined provisions for the states to regain their jurisdiction from the low water mark to the three mile territorial limit. The OCS also provided the Commonwealth the capacity to continue its involvement in ocean and marine resource policy decision making. Consequently, 'the OCS was implemented in a complex, *ad hoc* and overlapping administrative manner' (Haward and Vince 2008, 97).

The OCS fisheries package outlined new arrangements for fisheries management between the Commonwealth and the states. The package aimed to introduce flexibility to fisheries management through provisions for individual fisheries and joint authorities where intergovernmental cooperation was required. While four joint authorities were proposed, only two were established - the Western Australian Fisheries Joint Authority and the Northern Territory Fisheries Joint Authority (Gullett 2008, 50).

The package outlined the Commonwealth's fishing responsibilities which included retaining control over the Australian Fishing Zone (AFZ) and transboundary stocks such as the southern bluefin tuna. Section 4 (1) of the *Fisheries Amendment Act 1978* specified that the AFZ includes 'waters adjacent to Australia commencing at baselines and extending 200 nautical miles seaward'. The AFZ was declared in 1979 and the fisheries activities within it are managed under the *Fisheries Management Act 1991*.

The states regained their original jurisdiction over territorial waters up to the three mile limit and were allocated control of fisheries to the boundary of the AFZ (Opeskin and Rothwell 1991, 423).<sup>2</sup> The OCS is applied where state and Commonwealth jurisdiction overlaps and it outlines agreements with states over specific fisheries. In the Bass Strait, the scallop fishery is managed under the OCS Agreement between the Commonwealth and Tasmania. The Commonwealth has responsibility over the scallop fishery in the central portion of Bass Strait while Tasmania retains authority of the fishery over the area 20 miles from its coast (Gullett 2008, 51).<sup>3</sup> The scallop fishery has been an exploited resource over the last few decades. The scallops were almost completely depleted in the 1970s and 80s, and although new management measures were put in place in the 1990s, the fishery collapsed again in 1998/9 (Buxton, Haddon and Bradshaw 2006, 98). While the fishery was reopened in 2001, fishing did not occur and further changes were made to the fishery. Suffice to say, that the scallop fishery in the Bass Strait is a fragile resource that may be in recovery now but may not always be so in the future.

Under the OCS arrangements, the Tasmanian government has jurisdiction over the Rock lobster, Abalone, and Giant Crab fisheries located in the Bass Strait. These fisheries are managed under separate management plans and the *Living Marine Resources Management Act 1995* (Tas). The OCS is one example of Commonwealth–State negotiations where the Commonwealth has controlled the outcome in its favour. Most importantly it signifies that the Commonwealth can choose to be involved in state jurisdictional issues if it desires.

*Australia's Oceans Policy*

*Australia's Oceans Policy* was released in 1998 and Regional Marine Plans (RMPs) were originally identified as the key method of implementing the policy (see Vince 2004, 2006 and 2008). *Australia's Oceans Policy* reinforced the requirement that different marine sectors needed to reorient towards an integrated, ecosystem-based management approach in Commonwealth marine waters. In October 2005, RMPs were given a legislative basis through section 176 of the EPBC Act and were changed to Marine Bioregional Plans (MBPs). By linking the marine plans to the EPBC Act, the environmental focus became a key priority for the marine plans (see Vince 2008).

Marine bioregional plans also provide the platform for the National Representative System of Marine Protected Areas (MPAs). Tasmania is part of the South East region which was the first RMP to be established under the oceans policy. The South East RMP and its system of MPAs has been reviewed and adjusted to conform to a MBP. The Boags Commonwealth Marine Reserve which is part of the South East MPA system is located on the North-western tip of Tasmania, in the Bass Strait.

#### *EPBC Act and the marine environment*

The development of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and its entry into force in 2000 saw the introduction of 'strategic assessment' of fisheries where fisheries are assessed against a standard set of environmental indicators. The EPBC Act applies to Commonwealth fisheries and all activities that may impact the environment within Commonwealth waters. Specific applications of the EPBC Act with regard to the pulp mill are discussed later in this paper. The Commonwealth has chosen the EPBC Act to respond to the Pulp Mill process rather through other avenues (such as jurisdictional or constitutional legal provisions).

#### *Tasmanian State Coastal Policy*

The states and the Northern Territory have near complete jurisdiction over the coastal zone within their boundaries. There were some areas, however, where the Commonwealth has direct responsibilities for the coastal zone and these include 'land containing defence establishments, lighthouses or other reserves, and the regulation of foreign investment in development projects through the Foreign Investment Review Board' (Haward 1990). The jurisdictional framework for coastal zone management was outlined in the OCS and the *Intergovernmental Agreement on the Environment* that came into effect in 1992 (see Commonwealth of Australia 1992; Vince 2004, 18).

*Tasmanian State Coastal Policy* came into operation October 10, 1996 and must be taken into account in local planning schemes and planning applications; regional and local area coastal management plans (Kay and Lester 1997, 277). It has no limit on its inland jurisdiction and extends to the limit of Tasmania's territorial sea, which includes all islands south of thirty nine degrees twelve minutes, and north of forty five degrees south, except Macquarie Island (The Sustainable Development Advisory Council 1995, 3). The Policy endeavours to guide decision making and facilitate integration of planning for the coastal zone. A *Revised Draft State Coastal Policy* was released in 2008 and is currently under review by the RPDC (Department of Premier and Cabinet 2009).

The original policy (which is still in effect) states that community involvement is a requirement for coastal zone management. An outcome of the Policy says that

Communities will be given the opportunity to make submissions to all plans or policies affecting the coastal zone. Consultative meetings with relevant and

interested community groups and individuals in local or regional areas will be held in conjunction with the release of policies and plans wherever possible (State Coastal Policy 1996, 15).

It goes on to say that ‘research into coastal processes and matters related to coastal zone planning and management by government or research institutions will be encouraged and assisted where possible’ (State Coastal Policy 1996, 15).

The Policy also refers to marine farming under the outcomes for coastal uses and development. It states that ‘Marine Farming Development Plans will be prepared, approved and gazetted under the *Marine Farming Planning Act* 1995 and consistent with the objectives, principles and outcomes of this Policy’ (State Coastal Policy 1996). Atlantic salmon farming is also a growing industry based on the Tamar Estuary within close proximity to the suggested pulp mill site.

#### *Tasmanian marine protected areas strategy*

In 2001, the Tasmanian Marine Protected Areas Strategy was released by the Marine and Marine Industries Council (MMIC). The Strategy fulfils the Tasmanian Government’s obligations to follow the national *Guidelines for Establishing the National Representative System of Marine Protected Areas* (MPAs) (see ANZECC 1998, Kriwoken and Stump 2006, 298). One Tasmanian MPA is located in the Bass Strait – the Kent Group Marine Reserve surrounding Deal Island. The MPA is divided into a no-take zone and a restricted fishing zone and is known for its large seal population. According to the Tasmanian Department of Primary Industries and Water (DPIW) ‘the Kent Group includes the southern-most strongholds of several fish species including the violet roughy, mosaic leatherjacket and Wilson’s weedfish, and the southern limit of distribution of Maori wrasse, One-spot Puller and Banks shovelnose’ (DPIW 2008).

Three ‘research areas’ are also identified in the Bass Strait and these include Waterwitch Reef, Inner Sister Island and Swan Island (DPIW 2008). The aim of the Strategy is ‘to establish and manage a comprehensive, adequate and representative system of marine protected areas, to contribute to the long-term ecological viability of marine and estuarine system, and to protect Tasmania’s biological diversity’ (MMIC 2001, 6). Secondary goals include ecological, economic, social and scientific goals. These goals are particularly important when assessing effluent effects in the Bass Strait, as the Tasmanian government is obligated to, *inter alia*, protect the MPAs; the habitats of economically important species; habitats of importance for recreation and tourism; and achieve the support and cooperation of the community (MMIC 2001, 7).

#### **The RPDC process and marine issues**

When the pulp mill project was first announced in 2003, Gunns indicated that the mill would not use a chlorine bleaching process and that it would be ‘green’ in design (Buckman 2008, 136). In February 2005, the chlorine bleaching process was returned to the pulp mill design. The chlorine bleaching process heavily relies on the excessive use of fresh water<sup>4</sup>, and after it is used the mill would discharge approximately thirty billion litres of effluent into the Bass Strait each year (Putt 2005). The pulp mill’s effluent will contain organochlorine, a chemical that can be toxic depending on levels of concentration. This has become the source of contention for many marine stakeholders interested in the effects of the mill on the marine environment.

The Tasmanian Fishing Industry Council (TFIC) was first to address the impact a pulp mill would have on the industry as soon as the RPDC began its assessment process in 2004 (TFIC 2008). A Pulp Mill Symposium was held on 24 November 2005 by the UTas Environment Collective and the Wilderness Society. The TFIC was asked to review the industry's main issues with the proposed pulp mill. Andrew Febey, the then Chief Executive of TFIC argued that the Tasmanian seafood industry was worth \$300 million per annum, employed over 7000 people and that is a major economic driver in some coastal communities (Febey 2005). At this stage of the process, the TFIC was not completely against a pulp mill as long as it utilised 'the best technology available, using timber that is harvested on a sustainable basis and with no discharge of substances that damage the marine environment, especially in the long-term...' (Febey 2005).

The RPDC's public consultation process was originally scheduled from July to September 2006 following the submission of an Integrated Impact Statement (IIS) by Gunns. The IIS was submitted in July 2006 (Gale 2008, 263). The IIS included eighteen volumes ranging from a toxicology report by Toxikos (volume 10), wharf impacts (volume 11), toxicity assessment by Ecotox (volume 17) and hydrodynamic modelling (volume 18) (Gunns 2006). Seven hundred and eighty submissions were submitted to the RPDC in response to the IIS (RPDC 2007). The majority of submissions against the pulp mill reflected upon the effects of effluent on the marine environment and scrutinized the IIS report. Specifically the submissions questioned:

- Where the effluent would be released in the Bass Strait and the effects of this location
- The level of chlorine in the effluent
- The level of dioxins in the effluent
- The 'backwash' or 'flushing' of effluent into the Tamar estuary and Bass Strait
- The Bass Strait's circulation
- and lack of scientific certainty of the effects of the effluent for the whole life of the pulp mill.

Key submissions reflecting the issues above included those from Paul Sandery of Flinders University; the TFIC; the Tasmanian Abalone Council (TAC); Surfrider Foundation Australia (SFA); and Van Diemen Aquaculture. Paul Sandery responded to the RPDC by examining the hydrodynamic modelling studies in the IIS. He argued that due to slow flow rates and sediment transport in the Tamar estuary would induce a stagnation area. He went on to say that 'this implies over time, this part of the estuary could become concentrated with any contaminants and pollutants entering it' (Sandery 2006). He argued that the IIS does not address this issue and that further consideration needs to be made regarding the flushing of the Estuary. Moreover, the IIS does not address the 'potential long-term impact on Tamar Estuary nurseries, Bass Strait marine ecosystems and South East Fishery' (Sandery 2006).

The TFIC argued in its submission to the RPDC that the previous reports on the effects of the pulp mill did not demonstrate adequate monitoring program of the marine environment or an 'acceptable baseline of scientific data'. They also believed that the credibility of Gunns' case was undermined – particularly where it states that chlorine is not toxic. They went on to say 'Gunns have failed to take seriously the potential toxicity risks associated with the effluent they are proposing to discharge' (TFIC 2006). Nowak reviewed the toxicity assessment in the IIS as a part of the TFIC submission. Nowak argued that the Ecotox report (volume 17 of the IIS) does not address long term toxicity levels or the impacts of coastal ecology; it does not investigate ecosystem or fishery impacts; little information about monitoring is provided; and there is little information predicting impacts beyond one kilometre of the pipeline (Nowak

2006, p5). Furthermore, the abalone, seahorse and salmon farms in the Tamar could be affected through the release of toxic substances during dredging activities that may occur during the pulp mill's construction.

In addition, the TAC concerns were detailed in the TFIC's report, however, their main concerns were reinstated in a separate submission to the RPDC. TAC argued that 'there is an established and sustainable abalone fishery in direct proximity to the effluent pipe line discharge point' (TAC 2006). The lack of flushing ability of the Bass Strait 'will cause effluent to build up along the coastline of northern Tasmania and therefore, place the abalone fishery in the immediate vicinity under the possible threat of toxic build up' (TAC 2006). TAC's main concerns were that the toxins may 'bio-accumulate' in marine organisms over time and that scientific information presented can only be an approximation of what may happen over time.

The SFA, a community-based organisation, submitted its response to the RPDC in October 2006. It raised two main concerns in its submission, that the IIS failed to address the 'direct human health impact' on surfers and recreational users of the beaches, and the lack of scientific details regarding the marine environment for the life of the pulp mill. The SFA's submission included three volumes of detailed analysis on direct human health impact studies; indirect (chronic) marine life impacts; and a review of Gunns' hydrodynamic modelling report (SRF 2006).<sup>5</sup> The submission also indicated that the effluent may have 'suspended solids and bacteria' (SFA Press Release 2006). The SFA argued that this has not been addressed by the IIS, or how these solids and bacteria will affect human and marine ecosystem health. The SFA also argued for stakeholder inclusion in coastal management and future monitoring programs as outlined in the *State Coastal Policy* (SFA 2008, 16). The policy's principle 'Integrated management and protection of the coastal zone is a shared responsibility' recognises that 'communities have an important role to play in coastal management through the participation in decision making, input into policy and plans, and direct management' (State Coastal Policy 1996, 7).

Van Diemen Aquaculture is located directly opposite the proposed mill site. Their concerns were also submitted to the RPDC, with a particular emphasis on the possible changes to estuary conditions that will affect the growth of salmon. In their submission, they argued that sediment disturbance and slight temperature changes to the estuary water cause harmful disease in salmon (Hogarth 2006). The IIS indicated that sediment disturbance will occur during construction, however, there is little reference to how much disturbance will occur and during what periods of time. All these factors can contribute to detrimental effects on Van Diemen Aquaculture.

In addition to the submissions, the RPDC also commissioned reports to review some issues that had arisen from the IIS. Beca AMEC Limited was requested by the RPDC to review the toxicological appendices of the IIS report. They argued that where the IIS claims dioxins do not bioaccumulate in seals 'seems rather provocative and is at best controversial, at worst at odds with most available evidence' (Beca AMEC Ltd 2006, 2). They also suggested that modern bleaching technology should replace chlorine bleaching in the mill's design.

All the submissions and information regarding the marine ecosystem of the Tamar estuary and Bass Strait were to be reviewed by the RPDC. However, in March 2007, Gunns pulled out of the RPDC process and feedback on the consultation process was also halted. The

stakeholder's opportunity to restate their positions in a formal policy process was taken away at this time.

### **PMAA and marine issues**

Gunns pulled out of the RPDC process on the 14 March 2007 and the marine stakeholder submissions were deemed invalid. In the meanwhile, the Tasmanian government drafted a Pulp Mill Assessment Bill and stakeholders had the option to lobby Tasmanian politicians and Governor directly to voice any view about the Bill or the pulp mill. One such example was Professor Andrew Wadsley (2007) who wrote to the Governor of Tasmania with concerns over the Bill and marine issues:

I urge you to withhold assent from the "PULP MILL ASSESSMENT BILL 2007" currently before Parliament until it has been subject to constitutional and judicial review. This bill, if enacted, removes any right of appeal to take civil action against the Pulp Mill Project for any breach of Tasmanian law (s11)...Under the Pulp Mill Assessment Bill, I have no way of presenting my work for public scrutiny, no way to participate in the assessment process, and no way to take civil action against the mill owner should our worst fears be realised and dioxins contaminate the food chain...

The Tasmanian Government passed the *Pulp Mill Assessment Act (2007)* (PMAA) without any further investigation into the impacts of the pulp mill on the marine ecosystem. The PMAA contains 'provisions that prevented legal action under criminal law (including corruption)' (Gale 2008, 266). While the fisheries and marine stakeholders in any other political setting would have at this stage of the policy process tried to seek legal action, the PMAA has stopped them from being able to do so.

The media also became an outlet for stakeholders to voice their concerns about the new Act and their position on the pulp mill. The ABC's 7.30 Report (5<sup>th</sup> June 2007) claimed that Gunns 'has not adequately addressed the issue of air and marine pollution. The Fishing industry fears effluent from the mill could taint its catch, worth almost \$500 million each year' (Nettlefold 2007). Key issues began to emerge from this story. John Hammond, a scallop fisherman, spoke about the Bass Strait fishermen's concerns. Neil Stump from the TFIC stated that their questions have been 'fobbed off' by decision makers. Wadsley's research was also made public and it was claimed that he had '...spent four weeks examining Gunns' data. He believes dioxin levels could be up to 1,400 times greater than the company suggests, rendering seafood too toxic to eat' (Nettlefold 2007).

In June 2007, ten thousand people (Stedman 2007) attended the Wilderness Society's rally against the pulp mill in Launceston, arguably one of the largest rallies since the Franklin below Gordan Dam dispute in Tasmania in the 1980s (Buckman 2008, 143). Fisheries representatives were present at the rally and they again raised their issues with the pulp mill. Hammond addressed the crowd during this rally and said what has become an infamous line in the pulp mill debate in Tasmania - 'If a greenie means you want clean water and clean air and clean seas, then you can count me in' (Stedman 2007). This 'green' stance by fishermen is unique in Australian fisheries management history. Australian history demonstrates that the fishing industry has regularly been involved in disputes over MPAs, fishing quotas and other limitations to their industry. Consequently, the fishing industry has been in conflict, at one time or another, with governments and/or with other sectors (see for example, Baelde 2005; Vince 2004). While the fishing industry is embracing sustainable management measures as

outlined by the oceans policy and through strategic assessments under the EPBC Act (see above), tensions often remain between environmental and economic goals.

In the meanwhile, SWECO PIC, a Swedish consulting company was asked during this process to assess the pulp mill against environmental guidelines as the alternative fast track process to give clearance to the mill. Wadsley (2007b) reviewed the SWECO PIC assessment report and found that the report made ‘false and misleading statements, and omit[s] significant issues required for assessment under the Pulp Mill Assessment Act (2007).’ With regard to marine issues, Wadsley (2007b, 1) identified that the report did not address the impact of dioxin.<sup>6</sup> Wadsley also argued that dioxin pollution has been underestimated by SWECO PIC and that it could have detrimental affects on marine environment (Wadsley 2007b, 7).

### **Commonwealth Pulp Mill Review - protecting the sea?**

The pulp mill proposal was referred to the Commonwealth government’s Department of Environment and Water Resources (DEWR) to be reviewed under the EPBC Act. A referral under the EPBC Act was lodged in 2004 and then withdrawn when a second referral was lodged in 2005. The third referral (2007/3385) replaced the second and a consultation process giving stakeholders an opportunity to voice their concerns regarding the pulp mill was enacted. The public was invited to comment on the validity of the referral. Following this first phase of consultation, the Minister decided that the project was to be further assessed.

The second round of consultation which ended in June 2007, focussed on the assessment of ‘Preliminary Documentation’ prepared by Gunns and the mill’s impact on three areas of the EPBC Act – listed threatened species and ecological communities; listed migratory species; and the Commonwealth marine area. Approximately one hundred and twenty submissions referred to listed threatened species and ecological communities, and listed migratory species; and approximately two hundred and twenty submissions referred to the Commonwealth Marine Environment (Gunns 2007). Interestingly, only one hundred and thirty submissions directly addressed the Preliminary Documentation.

In July 2007, Gunns submitted their response to the submissions in a 175 page document. The report claimed that ‘the majority of submissions commented negatively on the PMAA (sic) (2007)...and disapproved of Gunns’ withdrawal from the RPDC assessment process’ (Gunns 2007, 30). According to this report, no submissions provided comment on marine species that may be affected by the pulp mill on the proposed site (Gunns 2007, 104). A number of submissions referred to marine seabirds and it was found that ‘no significant impacts are likely’ for any of the species listed (Gunns 2007, 104). The report addressed concerns of effluent on marine species but argued

the assessment found that the treated effluent will not alter the existing primary production of the surrounding ecosystem, and will not cause direct toxicity to organisms. An assessment of the impact of treated effluent on listed threatened species was undertaken, and none of the listed threatened species were found to be especially susceptible to any of the constituents in the treated effluent (Gunns 2007, 111).

With regard to the Commonwealth Marine area, a large part of the report dealt with the impacts of the effluent on Bass Strait and the Tamar Estuary, and the flushing of Bass Strait. Sandery, who in his submissions to the RPDC and the Commonwealth argued that the hydrodynamic models needed to be reviewed, had his research compared with the GHD

report that was commissioned by Gunns (Gunns 2007, 132). Wadsley's analysis on the dioxin levels in fish was also counter argued (Gunns 2007, p145). The report concluded the majority of public comments concerned issues which were already addressed in the material previously provided to the Commonwealth Minister for the Environment and Water Resources, there are few changes or additions required to the Preliminary Documentation, or other information previously provided to the Minister (Gunns 2007, 167).

The third consultation period was an invitation for the public to comment on the proposed decision and conditions for the pulp mill proposal. It ended on the 31<sup>st</sup> of August 2007 and thirty thousand submissions were received (Turnbull 2007). Many of the key marine stakeholders that submitted proposals to the RPDC also sent submissions to the Commonwealth government. Although the Commonwealth did not make these submissions publicly available, some stakeholders published their submission on their websites.

The Tasmanian Seafood Industry Council's (TSIC- formally TFIC) (2007) submission, for example, raised concerns that there was a lack of information in the Toxicity reports that were submitted by Gunns to the Commonwealth (such as the Toxikos Report in 2007). They argued that further research needs to be done and that the Toxikos report is only a review of previous literature – most of which is based on freshwater ecosystems in the northern hemisphere. As outlined in the RPDC process, they argued that longitudinal studies measuring levels of toxicity need to be measured and this was not addressed by the Toxikos report.

In October 2007, the then Environment Minister Malcolm Turnbull announced that the mill would go ahead, and it would be assessed against forty eight environmental conditions. The DEWR states that the key aspects of the conditions are:

- an integrated Environmental Impact Management Plan that will strictly prescribe all actions relating to *Environment Protection and Biodiversity Conservation Act 1999* matters
- an independent panel, drawn from national and international experts, to oversee the design, implementation and monitoring of the pulp mill
- an independent inspector, appointed by the Australian Government, to monitor Gunns compliance
- guarantee of tertiary treatment of effluent, should it become necessary (DEWR 2008).

Following the conditions, an Independent Expert Group was appointed in October 2007 to provide scientific and expert advice on the process. Buckman (2008, 146) notes that the 'new conditions also allowed the amount of chlorate pollution that could be released to be nearly doubled.' He goes on to argue

An investigation by *The Age*, however, found the mill would be far from world class: the mill's allowable dioxin release would equal the entire allowable release from all of Sweden's bleached pulp and paper industry, which produces seven times the amount of pulp Gunns' mill would. Erik Nystrom, from the Swedish Environmental Protection Agency, told the paper: "why they have set their levels at this level I don't know. Any Swedish mill that saw such levels would be alarmed and act immediately."

Canadian pulp mill dioxin release limits are also significantly tougher than the levels Turnbull allowed Gunns (Buckman 2008, 146).

In early November 2008, the Wilderness Society announced its concern that the impact of the pulp mill over marine life and the fishing industry will not be assessed until after an approval decision is made (ABC 2008). The Minister for the Environment's spokesman claimed that 'detailed modelling of the marine impact will be carried out before the mill can be commissioned' (ABC 2008).

On the 5<sup>th</sup> January 2009, Minister for Environment, Peter Garrett announced that three modules of the Environmental Impact Management Plan (EIMP) had not been approved. The modules L (Precommissioning Management), M (Monitoring) and N (Remedial Response Strategies) and their connection to hydrodynamic modelling were identified as being in need of review. In his *Statement of Reasons* for this decision, Garrett (2009) claimed that 'the completion of the hydrodynamic modelling is essential to understanding how the proposed mill may impact on the Commonwealth marine area, and to determining whether response strategies to mitigate any potential impacts may be required, and the nature of these strategies.' The statement extends the time for the completion of the EIMP to 3 March 2011. In addition, Garrett (2009) acknowledges that he took into account 'the Precautionary Principle (as set out in the EPBC Act)' in reaching his decision. While the Commonwealth is limited in what decisions it can make regarding the Pulp Mill, the review of the three EIMP modules demonstrates that the marine environment is still an issue of importance for the Commonwealth.

### **An assessment of the process – under-reviewing the marine issues or 'flexibly interpreting' them?**

The discussion above demonstrates that marine issues have been under-reviewed by the Tasmanian government, suggesting that the Tasmanian government has left some of these issues to be assessed by the Commonwealth. The Tasmanian State Coastal Policy provides the opportunity for reviewing marine impacts and involving stakeholder participation, however, it has not been applied. The Tasmanian government has also accepted Gunns' research as being sufficient. As the marine stakeholders identified in their submissions, the long term impacts of dioxin in the marine ecosystem were not addressed in the Gunns' commissioned studies and needed further review. Despite these concerns, Gunns have not changed their position or addressed this issue in subsequent reports.

There are also difficulties in predicting what may or may not happen in such cases. Scientists can research examples from other pulp mills and estimate possible outcomes, but the real outcomes will only be measured when the pulp mill is actually functioning. Therefore, the marine stakeholders' concerns are applicable as a precautionary approach to the pulp mill, one which is supported by many of the policies adopted by the Tasmanian and Commonwealth governments (see above). The Tasmanian government, however, has not applied the precautionary principle when dealing with this pulp mill issue.

The stakeholders' submissions under the EPBC Act may have been assessed, but since they are not publicly available stakeholders can only assume that their views have been taken into account given that the Commonwealth is reviewing the three modules of the EIMP. However, the Commonwealth process has meant that any submissions outside the scope of the EPBC Act could not be addressed, and issues of importance to stakeholders may have been dismissed for being beyond the scope of what was being assessed. For instance, the impacts

on human life and people's use of the ocean cannot be addressed through the EPBC Act process. While the SRF brought this to attention during the RPDC assessment process, there has been little opportunity for this issue to be reviewed through either the PMAA process or the Commonwealth review process. The EPBC Act pertains specifically to listed threatened species and ecological communities, listed migratory species and the Commonwealth marine area, and does not address the environmental issues impacting on human and recreational use of the ocean.

In addition to the speculative nature of some of the scientific studies, the selective use of this information has also driven political decision making. The Forest Industries Association of Tasmania (FIAT) claimed in August 2007 that the public has been 'confused' due to the 'misinformation' that has been circulated in the Tasmanian community (Forest Industries of Tasmania 2007). FIAT argued that the level of dioxins released in the effluent will be so minimal it is 'equivalent to one grain of salt in 24 Olympic swimming pools' (Forest Industries of Tasmania 2007).

Ironically, the Association's press release on 'facts, fiction and politics' demonstrated that it too selected which information it used to make its argument. It claimed that the Tasmanian Aquaculture and Fisheries Institute's (TAFI) study of the 'vicinity of the proposed effluent pipeline...concluded that this region could not be currently fished commercially, and it is also unlikely that this area will, on its own, ever support a commercial scallop bed' (Forest Industries of Tasmania 2007). While this is correct, it is important to note that the Institute's study was limited to the following parameters: to survey scallop bed locations within a 500m and or 1000m radius from the proposed pipeline, and to identify the location of any productive scallop beds within a broader area (north of the 1000m radius and surrounding Tenth Island) (Semmens and Harrington 2007, p1). One scallop bed near Tenth Island was identified as being commercially viable but it would only make up a small part of the total allowable catch. TAFI was *not* commissioned to survey beyond this area, nor was it required to survey whether the effluent would affect existing scallop beds beyond the surveyed area.

This was also the catalyst for the FIA to argue that fisheries stakeholders were misleading the public, yet the TAFI report was not an analysis of Bass Strait fisheries. FIA's interpretation of TAFI's report is an example of what Evans (1997) calls 'interpretative flexibility' of predictive modelling. The TAFI report's conclusions were flexibly interpreted and provided a basis for FIA to dismiss the fishing industry's concerns.

Duncan (2006, 75) argues that 'predictive models can create a façade of "concreteness" when the conclusions they derive are relevant under a narrow set of circumstances.' This has certainly been the case with the marine impact assessments that were included in the IIS and Gunns has continued to support this evidence throughout the subsequent assessments. The marine stakeholders have called for further scientific analysis of the effects of the effluent on the marine ecosystem and reinforcing the need for further analysis to include 'explicit disclosure, cross-check and testing scenarios, world views and assumptions that underpin claims derived from predictive models' (Duncan 2006, 85). Duncan also argues that a politically driven assessment process will be reflected in its outcomes (Duncan 2006, 85). Many of the decisions on the pulp mill have been politically driven to such an extent that in an opinion piece in the *Australian* (2009) it is claimed that 'approvals involving the state and federal governments could use streamlining and more transparency. At the moment,

supporters and opponents of a project can pick hospitable political jurisdictions in which to fight in the same way lawyers sometimes pick courts to fight in.’

Further outcomes of this flawed policy process came to light in November 2008, where the pulp mill project was declared ‘dead’ (AAP 2008) and Deputy Premier, Lara Giddings announced that the Government’s pulp mill steering committee had been disbanded and that ‘there’s less chance of it being [built] in the current economic climate’ (Naidoo 2008). Despite this and the lack of financial backing of the mill, on the 20th July 2009, Gunns began land clearing on sites connected to the pulp mill (ABC 2009).

### **Conclusion**

This paper has argued that the impacts of the pulp mill on the marine environment have been under-reviewed by the Tasmanian government and the Commonwealth is limited to addressing marine issues through the EPBC Act. The focus on marine issues illustrates that it is only one small part of the whole pulp mill policy process. Other environmental issues such as forestry, air pollution and fresh water usage together with marine issues reflect a ‘wicked problem’ (see Rittel and Webber 1973) in the development of the mill.

The overview of state and Commonwealth jurisdictional responsibilities and policies dealing with marine issues demonstrated the complex legal framework that could be applied to the Pulp Mill process by both governments in their support of the marine environment. The Commonwealth has chosen its limited involvement in the Pulp Mill process through the EPBC Act rather than any other legislative avenues it could have pursued if it wanted to prevent the mill’s development. The enforcement of the PMAA has now made it almost impossible for any stakeholder to question or be involved in the state’s pulp mill policy process.

Furthermore, this paper has argued that some scientific evidence regarding effluent discharge has been flexibly interpreted and can be counter argued by both pro and anti pulp mill groups. The message from the marine stakeholders in their submissions to the RPDC and the Commonwealth government was that more research needs to be completed and a precautionary approach taken when reviewing the impacts of the mill on the marine environment. If this approach was taken by all decision makers and the RPDC process continued the problem with marine issues being ‘under-reviewed’ or ‘flexibly interpreted’ could have then been avoided and good environmental governance attained. As a result there is a growing distrust in the Tasmanian community reflected in the mass mobilisation against pulp mill policy decisions.

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<sup>1</sup> One nautical mile is equivalent to 1.852 kilometres.

<sup>2</sup> In the case of *Bonser v La Macchia* 122, CLR (1969), authorises the Commonwealth through Section 51 (x) of the Constitution to legislate with respect to fisheries only beyond the three mile limit.

<sup>3</sup> The scallop fishery is split three ways with Tasmania, Victoria and the Commonwealth. Victoria has similar arrangements to Tasmania and has jurisdiction over the fishery up to 20 miles from its coast.

<sup>4</sup> It has been reported that the mill would use approximately 72 megalitres of fresh water each day.

<sup>5</sup> The AMC Search consultant's report that made up the second volume addressed the IIS deficiencies with regard to the ocean environment and concluded that further specific investigations, measurements and monitoring of sediment, the sites of the outfall, nutrient concentrations, and seagrass beds 'as "hotspots" for transient species' needed to be completed (SRF 2006, p2).

<sup>6</sup> In addition, the report did not assess or qualify the assessment of the following sections of the PMAA guidelines:

- D1.1 – for emissions to the marine environment, emission limits will be set at levels that can be achieved using AMT, unless lower limits are required to protect recognised water quality objectives;
- D.1.2 – more stringent standards may be required to mitigate any deleterious environmental impacts identified during the environmental impact assessment for the proposed mill;
- D1.11 – depending on the circumstances and characteristics of the receiving waters there may be justification for setting limits on other wastewater discharge parameters e.g. nutrients, pH, temperature and possibly flow (Wadsley 2007b, 1).