

# MANAGING MARINE FARMING PRESENTATION

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## Seals and the Tasmanian Aquaculture Industry

To a Tasmanian seal, salmon is like a cross between a Big Mac and heroin. It is junk food for seals, except no doubt a bit healthier and probably a bit more addictive.

Seals are attracted to fish farming operations when poor practices provide access to fish, and farm structures provide an opportunity to get out of the water and rest.

For years seals have been relocated as a way of getting them away from farms. This is not very effective and leads to conflict with recreational and commercial fishers.

Many seals simply return and, of course, there are animal welfare issues associated with trapping and transporting these large wild animals, not to mention OH&S concerns for the people who have to handle them.

Both recreational and commercial fishers have concerns as they believe that allowing seals to become accustomed to boats, and learning to associate boats with food, will lead to unwanted interactions. Calls to halt this practice have been largely ignored.

More recently, more than 10 seals have been killed due the implementation of a Tasmanian Government process (*The Protocol for the Humane Destruction of Seals*) in the last 18 months, supposedly to protect workers.

The TCT believes that these Government sanctioned killings should not have occurred. Normal seal behaviour may be interpreted as threatening when it isn't. In fact, seals do not represent a significant threat if commonsense is applied.

Even if the perceived risk is accepted as real, killing seals after they are identified as a threat does not provide adequate protection to workers. If seals were a genuine threat they could easily attack workers before they were identified and captured.

The real solution is to ensure that seals do not have access to fish or farm structures. Technologies and strategies exist that exclude seals from fish and have been successfully used in Washington State for years, where there are very stringent laws protecting marine mammals.

These technologies include:

- Underwater nets that exclude seals;
- Electric fences and bird nets that stop seals accessing fish from above; and
- Strategies to prevent fish from escaping while fish transfers are being carried out.

It is also essential that strategies be adopted which do not effectively reward seals for bad behaviour. For example, at one time it was common practice at some farm sites to throw morts (deceased fish) away from divers who were feeling threatened. The seals soon learned to start intimidating divers, as they were getting rewarded by dead fish.

### **Encouraging a change in attitude**

Tasmanian salmon growers mainly supply a domestic market where considerations of marine mammal welfare are important. This means that a market focussed campaign to encourage changes in practices would likely be very effective.

A colleague of mine has already approached two of the major buyers who have indicated they do not want to sell fish products associated with killing seals.

Effective seal exclusion technologies are being rapidly implemented in Tasmania by Tassal, which has made a policy decision to no longer kill seals.

### **Conclusion**

Seals **do not** have to be killed so that fish can be farmed in Tasmania.

The Tasmanian Government seal management strategy has resulted in normally protected seals being deliberately killed with Government approval for no good reason. The existing Government protocol should be discarded. Market forces in Australia will work to protect seals in the future.

I think it is unacceptable, and unnecessary, for marine mammals such as seals to be regularly killed in what is at best an ineffective concession to concerns about Occupational Health & Safety and at worse a cynical way to stop seals eating fish without paying for exclusion infrastructure and technology that would offer real protection to fish and workers.

Informing workers about normal seal behaviour and developing better work practices should reduce anxiety. Implementing better technologies can also alleviate the risks to fish (with consequential reductions in perceived risks to workers). These strategies must be preferred to the continued culling and ineffective relocation programmes.

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## Tasmanian Aquaculture: Planning Process Problems

The Marine Farming Planning Review Panel has been the statutory authority responsible for the main planning decisions for the Tasmanian aquaculture industry since the *Marine Farming Planning Act 1995* was introduced.

Unfortunately, planning for Tasmanian aquaculture development is not integrated with the mainstream planning system and suffers from a lack of accountability, transparency, and meaningful public participation.

If you have just become aware of the planning system for aquaculture in Tasmania and the operation of the Marine Farming Planning Review Panel (the **Panel**) in the last year or so, you could easily get the impression that the current planning system does a reasonable job at fairly considering and giving equal weight to both sides on development issues. After all, last year the Panel rejected the expansion proposal at Soldiers Point in response to environmental concerns. Doesn't that suggest that the planning system is looking after the interests of the wider community and not just those of the aquaculture industry?

In fact, as far as I am aware, this decision was the first time that the Panel has ever actually rejected an application to expand aquaculture activities since the Panel was created. A closer look at the decision also shows that the aquaculture planning process continues to display fundamental problems (though, to give credit where it is due, the decision was well documented and provides clear explanations for the outcomes – in contrast to previous Panel decisions for which the rationale has been poorly documented).

In this presentation I will outline some of the odd outcomes that have resulted shortcomings in the marine farming planning system, and ongoing concerns about the role of the Panel.

### 1. No requirement for transparent decision-making process

Many concerns were raised about the Soldiers Point proposal, ranging from pollution affecting a nearby business, to noise and visual pollution, to benthic impacts of solids and nutrients on a nearby reef. In the end it was concerns about benthic impacts of waste material from the new fish cages on an adjacent reef that resulted in the proposal being knocked back.

The reef was used by the Marine Discovery Centre at Woodbridge for education purposes. The associated invertebrate community of sponges etc was considered particularly vulnerable to pollution from fish farms. Interestingly, the vulnerable reef area was not identified during the formal assessment process, but was first brought to the attention of the Marine Farming Branch by the Marine Discovery Centre itself.

Another issue was the impact of this development on potential spotted handfish and its habitat. The critically endangered spotted handfish is found only in SE Tasmania and has previously been observed in the D'Entrecasteaux Channel near Soldiers Point. At the public hearing before the Panel proposal I made the point that if the environmental survey was unable to find a sizeable reef, how can we be confident that small handfish in the area would have been found?

I did not receive any useful response to this concern.

While it is to the credit of the Panel that the decision to reject the proposal was based on concerns about environmental impacts of fish farm pollution on a reef area, it has to be pointed out that the many other legitimate concerns raised during the consultation process were dismissed without detailed reasons.

Things such as noise and visual pollution and loss of access to fishers and other recreational users are recognised in the documentation associated with the Soldiers Point decision, but these concerns were not given much consideration and did not appear to influence the decision.

## **2. Lack of scientific rigour in decision making**

### Nutrients

It's generally accepted that Tasmania's marine environment is mostly nutrient poor, compared to most other salmonid producing areas in the world - such as Canada or Norway - due to runoff from nutrient poor soils and a lack of nearby upwellings.

Raising nutrient levels can have unwanted ecological consequences, changing algal communities of reefs, or triggering toxic phytoplankton blooms, which can contaminate water and shellfish with toxins.

In written and spoken submissions I repeatedly asked how the Panel could be sure that increasing nutrients from fish farm pollution (e.g. faeces, urine and food waste) would not result in serious problems.

The TCT was assured that our concerns about nutrients from aquaculture were unfounded and that such inputs would be insignificant. I asked for some sort of evidence but never received a sensible answer. The closest I got was being directed to a reference based on research in the Bay of Fundy. Given that the Bay of Fundy on the east coast of Canada has the highest tidal range in the world, very fast currents and very high natural nutrient loadings, I felt that research conclusions based on that area simply cannot be compared to Tasmanian conditions.

Moving forward a few years, a CSIRO study of the Huon system indicated that aquaculture contributes around 25% of total nutrient loading (human related inputs make up about 50% of the total). Though the ecological consequences are still not completely understood, it became clear that toxic blooms represent a threat to the aquaculture industry.

Currently, regular warnings are given regarding toxic shellfish and cases of paralytic shellfish poisoning, which can lead to permanent nerve damage or even death, have been reported. While the exact causes of these sorts of blooms are hard to identify, it is certain that increased nutrient loading does encourage their occurrence, and that fish farms are contributing large amounts of nutrients to the Huon Estuary and the D'Entrecasteaux Channel.

All these issues raised concern within DPIPWE for a short time. More recently, that concern (or at least responses to the concern) seems to have lessened.

In its response to written submission during the Soldiers Point process, the Planning Authority actually acknowledged our concerns about nutrients. As far as I can remember, this is the first time DPIPWE has acknowledged concerns raised by the Tasmanian Conservation Trust about nutrients since the Marine Farming Planning Act 1995 was introduced.

As well as CSIRO's Huon Estuary study there appears to be useful monitoring being done by the Broad Scale Environmental Monitoring Program (BEMP). In fact the Planning Authority states that "*TAFI have been engaged by DPIPWE to evaluate and interpret the data from the BEMP. This work is expected to commence in mid 2011 [Note: **after** the Soldiers Point process] and together with other relevant research will assess the monitoring site specific and regional data against the predictions of earlier system-wide modelling.... This evaluation will inform the PAs future management strategies for the MFDP area.*"

It did not seem consistent with a sensible, precautionary approach to even consider any further expansion of the aquaculture industry in the Huon Estuary / D'Entrecasteaux Channel until at least after the proposed evaluation has been completed and more thorough assessment of nutrient impacts has been carried out. However, the assessment proceeded.

The planning system should require greater certainty regarding the capacity of a waterway to sustain nutrient inputs before endorsing new or expanded marine farming leases.

#### Nitrogen caps

One recent advance in aquaculture management has been the introduction of a cap on nitrogen inputs. This is a kind of de facto limit on nutrient loading. Unfortunately, the upper limits that are set need more scientific justification, and there is a need for an independent auditing process to ensure that the cap is actually being applied.

#### Example: Flinders Island Oysters

During the development of the *Flinders Island Marine Farming Development Plan*, a proposal was made to introduce Pacific oysters into this part of Bass Strait.

Pacific oysters are an introduced species and a pest when their planktonic young drift from farm into the wild. These feral oysters displace native species and their sharp shells can make access to the coast by recreational users difficult. Many places, including the foreshore in the Tamar River and D'Entrecasteaux Channel, have been heavily degraded by the presence of these pests.

Tasmanian oyster producers normally grow sterile triploid oysters, using a heat shock during fertilisation to produce animals that do not reproduce and consequently grow faster. This process has benefits as, theoretically, pest species can be grown commercially without the risk of populations being sustained in the wild. This was the justification used to permit the introduction of an exotic pest into Flinders Island.

Unfortunately, the process that creates sterile animals is not 100% reliable and some viable animals are produced along with the sterile animals, so there was no way to guarantee Pacific oysters would not become established in the marine environment.

These risks of introducing an exotic pest were pointed out in submissions. Despite the numerous concerns raised, the Panel recommended approval of the proposal. Thankfully, the Minister recognised the risks and ultimately did not approve the proposal to introduce Pacific Oysters into the waters around Flinders Island.

In my view, while the outcome in this instance was a good one for the environment, it demonstrated a failure of the planning system as the Panel initially made the wrong decision. The Minister's decision was influenced by political issues (which ultimately favoured a better environmental outcome), however the decision should be based on a clear, objective, scientific impact assessment.

*Example: Marine Farming Zone near Ninepin Point Marine Protected Area*

Some years ago an area just to the north of Ninepin Point in the D'Entrecasteaux Channel was identified by the Marine Farming Branch as being suitable for aquaculture. A proposal was made to zone it as a new aquaculture lease area.

Opposition was provided by three Tasmanian government departments (Parks and Wildlife, Tourism and the Coastal Unit within DPIWE), one of Australia's leading marine ecologists, local residents and the TCT. There were concerns raised about noise and visual pollution, water pollution damaging the nearby marine protected area, and loss of amenity.

The only support for this proposal came from the Marine Farming Branch, and just one aquaculture company. Predictably, the Panel (and the Minister) approved the change, despite the level of opposition even within government agencies. The decision was never adequately explained or justified.

In the wake of this decision, the TCT understands that there was a Government direction that its departments and staff no longer make critical public submissions to the aquaculture planning process.

In a bizarre twist that highlights the complete bias of this process, the new area was never actually occupied since, on further consideration by the aquaculture company, it was considered to be unsuitable as a farm site and abandoned.

**3. Failure to have regard to legitimate community concerns regarding access, noise and visual amenity**

Lack of concern about noise, visual pollution and lack of access caused by the aquaculture industry has been a feature of DPIWE in the past, and has been demonstrated by previous decisions made by the Panel. Loss of amenity is a legitimate concern and ignoring it highlights the failure of the marine farming planning process to take into account genuine community concerns.

Concerns about pollution by nutrients or antibiotics, or other ecological impacts, can be difficult for non-experts to observe or comprehend. In contrast, the fact that fish farms have a visible and sometimes noisy presence, and take up space on the water while excluding other users is easy to understand.

Loss of access for recreational users has been a long standing complaint about the increasing area being given over to the aquaculture industry. For example, other water users such as sailors, fishers and divers are being excluded from traditionally important areas. Beachgoers, shore walkers and residents are being confronted by what is perceived by many as a noisy and unsightly industrial activity.

Though the Soldiers Point decision resulted in refusal of a proposed expansion, the Planning Authority was very dismissive of amenity-based concerns. On page 26 of its s.40 report (responding to written submissions), the Planning Authority stated:

*"... this proposed amendment will increase the visual impact of marine farming operations at Soldiers Point to surrounding residents. This is an unavoidable impact of this proposal".*

#### **4. Lack of broad representation on the Panel**

One fundamental problem associated is that the members of the Panel are not representative of the broader, affected community. The Panel consists of 8 persons appointed by the Governor of whom –

- (a) one is the chairperson of the Panel; and
- (b) one is a person nominated by the chairperson of the Tasmanian Planning Commission with ability and experience in planning issues; and
- (c) one is the Director, Environment Protection Authority; and
- (d) one is a person with ability in marine resource management; and
- (e) one is a person with ability to assess boating, recreational and navigational issues; and
- (f) one is a person with experience in marine farming; and
- (fa) one is a person with expertise in local government issues; and
- (g) one is a person nominated by the Minister.

The Marine Farming Planning Review Panel is non-representative and there is no requirement for it to actually represent the interests of local communities, recreational users or take into account environmental impacts.

I have been a member of two peak recreational fishing bodies that have each requested membership on the panel. Both requests were rejected.

#### **5. There is no mechanism to ensure that submissions by the public are taken into account, and only limited scope for appeal**

A previous manager wrote in the Industry magazine *Fishing Today* that one of the purposes of the new act was to prevent time consuming legal challenges to the planning process. The Act seems to have achieved that outcome. Of course, many feel that their rights have been ignored as a result.

When the *Marine Farming Planning Act 1995* commenced, the Tasmanian Conservation Trust sought legal advice about challenging decisions made under the legislation. No useful avenue for appeal was identified. The lawyer did make the comment that the public consultation required by the *Act* gave the appearance of public participation, but that there was no requirement for the Panel to actually take into account any public submissions.

There is no right of appeal against a decision of the Panel, and judicial review options are limited by the absence of a requirement to have regard to the issues raised in representations or during public hearings.

## **6. Lack of information**

There are many instances where basic information is not provided (and not required to be provided) under the current system.

A recent call for submissions in respect of an aquaculture plan in Port Sorell was only advertised in the *Examiner and Advocate*. Too bad if you only get the *Mercury*, or don't regularly read the public notices section of the papers!

I was recently contacted by an academic at the School of Aquaculture in Launceston and asked if I had a map of marine farming areas in Tasmania. This should be a basic resource available on the DPIPWE website.

Access to this basic information would improve the community's ability to get involved in the planning process.

## **Conclusion**

I hope I have managed to illustrate some of the shortcomings that result from the current approach, and the way the process generally works to exclude meaningful participation by the public.

In my experience, planning for aquaculture in Tasmania is very much a top-down, authoritarian process and almost always dismisses public concerns. It has even ignored concerns raised within Government itself.

The Tasmanian Conservation Trust has outlined the shortcomings in the aquaculture planning process many times, including making submissions during two previous reviews of the legislation.

The Tasmanian Government has a history of undermining the integrated resource management and planning system it implemented in the early 1990s – from forestry and canal estates to the pulp mill, public participation and planning processes have been ignored.

### **The solution is simple:**

Bring aquaculture planning into Tasmania's mainstream planning process and replace the Marine Farming Planning Review Panel with the Tasmanian Planning Commission to ensure a more balanced planning process for the aquaculture industry in the marine environment.

Looking back at the way the aquaculture industry has developed in Tasmania over the last 20 years, and thinking about the concerns that have been raised by members of the community as well as by other Government departments, I

can't help thinking that a better planning system, with real public participation, would have:

- delivered almost everything that the industry wanted;
- encouraged scientific research that would have made the industry more secure; and
- provided the industry with much better standing in the community.

We do **not** need a separate planning authority for the aquaculture industry. We can simply use the existing planning processes to provide a more integrated, accessible and transparent approach.