



# edotasmania

using the law to protect the natural and built environment

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31 March 2016

Marine Fisheries and Aquaculture  
Productivity Commission  
GPO Box 1428  
Canberra City ACT 2601

**By email:** [fisheries.inquiry@pc.gov.au](mailto:fisheries.inquiry@pc.gov.au)

Dear Ms Cilento

## **Inquiry into the Regulation of Marine Fisheries and Aquaculture**

The Environmental Defenders Office (Tas) Inc (**EDO Tasmania**) is a non-profit, community based legal service specialising in environmental and planning law. We have a long-standing interest in best practice assessment and regulation of aquaculture and welcome this inquiry.

We acknowledge that the primary focus of the inquiry is wild capture marine fisheries, but wish to respond only in relation to Part 5: Aquaculture, specifically the following information request:

***Are existing regulatory arrangements well-targeted and efficient means for managing aquaculture operations and addressing potential environmental impacts?***

EDO Tasmania has made a number of previous, detailed submissions to similar recent inquiries focussing on regulation of aquaculture operations in Tasmania (copies of which are attached). It remains our view that the regulatory framework is not well targeted or efficient, often resulting in unnecessary duplication of effort for industry, lack of monitoring, and poor environmental outcomes.

We welcome the Tasmanian government's current efforts to bring the existing suite of biosecurity laws into one targeted and effective Biosecurity Act. We believe that there are similar opportunities to streamline environmental and planning regulations applying to marine farming in a manner that improves environmental outcomes.

Key issues and concerns, outlined in previous submissions, include:

- Lack of integration between land use and marine farming regulation. Local planning laws apply to the land-based components of marine farming, but not to aquaculture operations below high water mark. This compromises strategic planning efforts at the local and regional level, with local planning authorities expected to manage land uses which may impact, or be impacted by, marine farming, while having no involvement in decisions regarding the location, scale or management of marine farming operations.

EDO Tasmania believes that bringing the marine farming activities within the *Land Use Planning and Approvals Act 1993* would improve strategic planning, consistency of regulation and coordination of monitoring and compliance efforts.<sup>1</sup>

- Ministerial powers to override the recommendations of the independent, scientific advisory Marine Farming Planning Review Panel, even where the Panel indicates that a proposed marine farming operation will have adverse environmental impacts. Previous powers of refusal under the *Marine Farming Planning Act 1995* should be restored to the Panel.

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<sup>1</sup> For example, see the [submission of Kingborough Council](#) to the Senate Inquiry into the Regulation of Fin-Fish Aquaculture in Tasmania, and evidence of Mayor Stephen Wass detailed in the Senate Report (p81)

- The conflicting role of the Department of Primary Industries, Parks, Water and Environment (**DPIPWE**) as both proponent and regulator of the aquaculture industry. We believe that more consistent and targeted compliance action would be achieved by authorising the Environment Protection Authority to assess aquaculture proposals and to enforce permit conditions.
- Lack of independent, transparent monitoring activities. As a result of resource constraints, DPIPWE does not undertake routine monitoring, relying instead on reports provided by industry. Furthermore, such reports are often submitted “voluntarily”, rather than explicitly required by a permit condition. As a result, public access to raw monitoring data has been denied on the basis that it is commercial in confidence and that releasing it to the public will discourage industry from continuing monitoring activities.

EDO Tasmania recommends that monitoring activities be undertaken by DPIPWE (or an independent consultant engaged by DPIPWE), and that additional resources be secured through higher licensing fees. The additional fees would be offset by reduced monitoring costs incurred directly by industry. Monitoring data should also be actively made available to the public by publication on the DPIPWE website.

In its [report into the Inquiry into Regulation of Fin-Fish Aquaculture in Tasmania](#), the Senate recommended that the Tasmanian government provide additional resources to DPIPWE to allow for monitoring, enforcement and reporting activities. We support that recommendation.

- Reliance on “adaptive management” to address data deficiency. While we recognise that there are benefits to adaptive management which responds to unanticipated problems, reliance on adaptive management to overcome data shortfalls (rather than to deal with new information) is inappropriate, particularly in relation to impacts on endangered species.

If sufficient data is not provided to clearly identify risks and satisfy the decision maker that impacts on environmental values can be avoided, minimised or appropriately managed, further information should be requested from the proponent or the proposal should be refused. At the very least, data provided with a proposal must be sufficient to enable appropriate performance triggers to be set.

A week after the release of the Senate report referred to above, the Tasmanian Government released an [independent review by the Cawthron Institute into fish and marine health in Macquarie Harbour](#) (the site of significant aquaculture expansion since 2012, and ongoing concerns regarding dissolved oxygen levels). That report identified the need for a range of additional work to identify biological response indicators, appropriate monitoring sites, nutrient outputs, flow rates and a monitoring programme to improve understanding of farm-scale and harbour wide changes in water quality.

These findings support the need for more upfront information to ensure that approvals are not given without a clear understanding of potential impacts and a well-designed monitoring programme to identify and resolve problems in a timely manner.

- Decisions in relation to marine farming operations are not open to appeal. To improve transparency and scientific rigour, approval and amendment decisions should be subject to third party merits review in the Resource Management and Planning Appeal Tribunal. This is consistent with the rights of review available in relation to other significant resource management decisions in Tasmania.

Civil enforcement options should also be available to provide opportunities for concerned third parties to take action where the regulatory authority has consistently failed to act.

Thank you for the opportunity to provide comments on the Issues Paper.

Yours sincerely,

**Environmental Defenders Office**



Jess Feehely  
Principal Lawyer

**Attach:** Submission to Senate Inquiry into Regulation of Fin-Fish Aquaculture in Tasmania (June 2015) + attachments



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1 June 2015

Committee Secretary  
Senate Standing Committee on Environment and Communications  
PO Box 6100  
Parliament House  
Canberra ACT 2600

By email: [ec.sen@aph.gov.au](mailto:ec.sen@aph.gov.au)

Dear Ms McDonald

## **Inquiry into the Regulation of Fin-Fish Aquaculture in Tasmania**

The Environmental Defenders Office (Tas) Inc (**EDO Tasmania**) is a non-profit, community based legal service specialising in environmental and planning law. We have a long-standing interest in best practice assessment and regulation of aquaculture. Our activities in pursuit of that objective include:

- In 2012, we hosted a multi-stakeholder conference, "*Managing Marine Farming: Have We Achieved Best Practice?*", looking at the experience of marine farming planning and operation in Tasmania and internationally<sup>1</sup>
- Making representations to the 2012 House of Representatives Inquiry into the Role of Science in Fisheries and Aquaculture (see **Attachment 2**)
- Publishing a paper outlining regulatory regimes in a range of international jurisdictions and recommending changes to improve the Tasmanian framework (see **Attachment 3**)
- Participating in a range of constructive consultation forums with industry representatives.

The attached submission builds on those activities, focussing on the following terms of reference:

**(c) the adequacy of current environmental planning and regulatory mechanisms**

**(d) the interaction of state and federal laws and regulation**

Getting the regulatory framework right is the most effective way to ensure that the marine farming industry can continue in a sustainable manner and with community (and consumer) confidence that environmental impacts are being appropriately managed.

We would welcome the opportunity to appear at a hearing to respond to any questions or provide clarification in relation to the issues raised in this submission.

Yours sincerely,

**Environmental Defenders Office**

Jess Feehely  
Principal Lawyer

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<sup>1</sup> Conference papers for the *Managing Marine Farming* forum are available at [www.edotas.org.au/resources/conferences/](http://www.edotas.org.au/resources/conferences/)



## ATTACHMENT 1: Submission to Senate Inquiry into the Regulation of Fin-Fish Aquaculture in Tasmania

### Summary of key recommendations

- Marine farming should be brought within the *Land Use Planning and Approvals Act 1993* by:
  - Requiring regional coastal and marine plans to be developed through consultation with all affected stakeholders. The plans could identify appropriate zones for marine farming, set limits on intensity of development and performance based standards that must be achieved. Regional plans could be reviewed by the Tasmanian Planning Commission and implemented through planning schemes
  - Introducing Statewide guidance for marine farming provisions in planning schemes
  - Establishing the Marine Farming Planning Review Panel as a referral agency to consider applications for individual lease developments / expansions
  - Providing resources to planning authorities to adequately assess applications for marine farming operations
- Implement a clear hierarchy of objectives to guide decision making and prioritise maintenance of natural values
- Require applications for marine farming activities to be assessed by the EPA (as Level 2 activities)
- Authorise the EPA to monitor and enforce environmental conditions attached to any authority to conduct marine farming, and require monitoring data to be published on the EPA website
- Require the Marine Farming Planning Review Panel to include members with expertise in relation to marine ecology and hydrology and a member representing community issues
- Re-authorise the Panel to refuse applications for marine farming proposals that cannot meet sustainability objectives. To ensure that natural justice is achieved, allow any person affected by the decision to appeal against a refusal
- Require sufficient scientific data to be provided in order to assess the potential impacts of aquaculture proposals and identify clear impact thresholds before approvals are given
- Encourage the proactive release of information including monitoring reports, number of complaints received, enforcement action taken and follow up reports
- Amend lease and licence conditions to require monitoring data to be provided regularly, rather than relying on voluntary contribution of information by regulated operators
- Allow appeals to the Resource Management and Planning Appeal Tribunal against decisions to amend a marine farming development plan
- Direct the Auditor-General to undertake a review of monitoring and compliance activities under the MFPA and *Living Marine Resources Management Act 1995*
- Allow any interested person to commence civil enforcement proceedings under the MFPA
- Introduce innovative enforcement techniques, such as remediation orders and 'name and shame' provisions, to increase deterrent value
- Develop a clear Enforcement Policy to guide marine farming enforcement activity
- Encourage the Federal Environment Minister to review the decision that the Macquarie Harbour expansion was not a controlled action

These recommendations are discussed in greater detail below.

## Adequacy of current environmental planning regulation

### Problems with the current framework

Unlike most other use and development in Tasmania, marine farming in State waters is explicitly excluded from the operation of the *Land Use Planning and Approvals Act 1993 (LUPAA)*.<sup>2</sup> Instead, the principal pieces of legislation governing fin-fish aquaculture in Tasmania are the *Marine Farming Planning Act 1995* and the *Living Marine Resources Management Act 1995*.

The key deficiencies in the current regulatory regime for aquaculture are:

- Lack of integration with other planning regimes
- Conflicting management objectives for the regulator
- Lack of independent, scientific assessment in relation to aquaculture proposals
- Restrictions on public review of resource allocation decisions
- Lack of transparency in relation to monitoring, enforcement and environmental outcomes
- Limited enforcement actions

These issues are discussed in detail in the EDO Tasmania Issues Paper at [Attachment 3](#), but are summarised below.

### Lack of integration

In its 2004 assessment of environmental regulatory arrangements for aquaculture, the Productivity Commission noted:

*The fisheries or aquaculture legislation may also have multiple, and sometimes conflicting, objectives. The objects of the fisheries legislation in New South Wales, Victoria, Western Australia and Tasmania, for example, all recognise explicitly that there are alternative uses of fishery resources — for example, commercial fishing, aquaculture, recreational fishing, tourism and ‘non-consumptive uses’... However, there is little guidance on the appropriate weights to be assigned to competing uses or how conflicts between uses are to be resolved.*<sup>3</sup>

In particular, s.4(1) of the *Marine Farming Planning Act 1995 (MFPA)* seeks to achieve “well-planned sustainable development of marine farming activities” having regard to the need to:

- (a) integrate marine farming activities with other marine uses; and
- (b) minimise any adverse impact of marine farming activities; and
- (c) set aside areas for activities other than for marine farming activities; and
- (d) take account of land uses; and
- (e) take account of the community's right to have an interest in those activities.

The Department of Primary Industries, Parks, Water and Environment (**DPIPWE**) and the Marine Farming Planning Review Panel (see below) are required to take these objectives, and the general sustainable development objectives set out in Schedule 1 of the MFPA, into account in their decisions.<sup>4</sup> However, the separation of marine farming planning from coastal and land use planning frameworks can make it difficult to balance these objectives. In practice, DPIPWE, the agency responsible for both planning and regulation of marine farming, has a clear interest in favouring development of marine leases over other uses.

Planning authorities (i.e local councils) have jurisdiction over land use and development but generally have no jurisdiction over the marine farming planning process or decisions in relation to activities below high water mark.<sup>5</sup> As a result, planning schemes under LUPAA cannot regulate marine farming activities (other than land-based operations or land-based components of marine-

<sup>2</sup> LUPAA, s.20(7)

<sup>3</sup> Productivity Commission. 2004, *Assessing Environmental Regulatory Arrangements for Aquaculture*, Canberra, p31

<sup>4</sup> MFPA, s. 9(1)

<sup>5</sup> *Living Marine Resources Management Act 1995*, s. 5

based operations).<sup>6</sup> In contrast, the Minister can require a planning scheme to be amended to ensure that land based activities do not affect marine farming.<sup>7</sup> This provides an unfair priority for marine farming activities, and confounds consideration of the other criteria outlined in s.4(1) above.

The impacts of marine farming are not restricted to the water: marine farming introduces noise and odour issues, impacts on visual amenity, requires infrastructure and access to transport routes and processing facilities, and can interfere with tourism and recreation activities. The inability of councils to plan for, or be involved in the assessment of, marine farming continues to hinder effective strategic planning at a municipal or regional level. While Marine Farming Development Plans currently provide some guidance regarding the planned location of marine farms, the regularity of applications to amend such plans to expand or relocate marine farms means that the public has little confidence regarding the limits on growth and councils cannot make strategic decisions regarding infrastructure.

EDO Tasmania is a strong advocate for the inclusion of marine farming within the standard land use planning process under LUPAA, with responsibility for strategic planning, assessment and approval of development applications and enforcement of permit conditions falling to local government. The Productivity Commission has noted some concerns with this approach, stating that:

*[T]he Marine Farming Planning Act 1995 provides for a common approach to marine farming across state waters, and DPIWE appears to have the capacity and experience to manage the process and address environmental impacts. If individual Tasmanian local councils were responsible for marine aquaculture planning and decision-making, there could be potential capacity and consistency issues that could affect both aquaculture, and marine management.*<sup>8</sup>

We consider that these risks could be overcome by:

- Introducing a Planning Directive to provide statewide guidance on planning scheme provisions relating to marine farming to improve consistency<sup>9</sup>
- Requiring planning schemes dealing with marine farming to be reviewed by the Tasmanian Planning Commission to ensure that the Planning Directive is implemented
- Requiring the planning authority to refer development applications for marine farms, or which may affect existing marine farms, to the Marine Farming Planning Review Panel (or another body within DPIPWE) for comment prior to assessment by the planning authority<sup>10</sup>
- Providing resources (financial and technical) to planning authorities required to take on additional responsibilities in relation to marine farming activities.

The benefit of greater integration to achieving the sustainable development objectives of the Tasmania's Resource Management and Planning System justifies the initial costs involved in restricting the marine farming planning system to accommodate these changes. Over time, the integration of the assessment and approval process is likely to result in reduced costs and social broad benefits.

The Productivity Commission has also noted the consequences of poorly integrated coastal and marine planning:

*State marine and coastal planning instruments are in some cases outdated, lack implementation plans for on-ground action, and fail to adequately consider adjoining land uses. These problems can constrain aquaculture development, and affect existing aquaculture operations through poor coastal water*

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<sup>6</sup> See, for example, MFPA, s.19(3)(c)

<sup>7</sup> MFPA, s. 20(3) provides that the relevant Minister may 'require the Tasmanian Planning Commission to prepare an amendment to a planning scheme under that Act in respect of land which adjoins State waters to reduce the negative impact or likely negative impact of activities or future development on the land upon marine farming or other activities in State waters'.

<sup>8</sup> Above n3, p61

<sup>9</sup> Note, current planning reforms seek to implement a Statewide Planning Scheme. This could facilitate the introduction of Statewide provisions relating to aquaculture

<sup>10</sup> This is consistent with the approach taken in relation to Level 2 development, developments affecting heritage places or developments which may impact on sewerage or water infrastructure.

management, with further implications for environmental management. There may also be a lack of integration between marine / coastal and natural resource management plans.<sup>11</sup>

The *Tasmanian State Coastal Policy 1996* provides limited guidance in relation to aquaculture planning or coastal developments causing diffuse pollution discharges that may compromise off-shore aquaculture operations. This inhibits integrated resource planning which balances all competing uses having regard to the ecological capacity of the region. A revised draft Coastal Policy released for comment in 2013 attempted to address this, but has not been progressed by the current government. Again, greater Statewide direction on coastal and marine planning matters can be delivered through a Planning Directive or the proposed Statewide Planning Scheme currently under development.

### **Approaches in other jurisdictions**

The approaches adopted in other jurisdictions in which fin-fish aquaculture operations are common, including New Zealand and Scotland, recognise:

- the importance of an explicit hierarchy of objectives to guide decision-making; and
- that separate planning for marine farming does not deal adequately with complex interrelationships, ecosystem impacts and diverse stakeholder priorities.

For example, prior to 1991, marine farming in New Zealand was subject to sector-specific legislation<sup>12</sup> which identified aquaculture zones where marine farming was permitted. However, the *Resource Management Act 1991 (RMA)* incorporated marine farming into a general “effects based management” regime for all use and development. The RMA required “rigorous analysis the effects of the proposed activity can be adequately avoided, remedied or mitigated and are otherwise consistent with sustainable management”.<sup>13</sup> Further changes to the legislation were introduced in 2011 to give effect to policies, including the *New Zealand Coastal Policy Statement*.

All regional councils have adopted regional coastal plans that are consistent with this Coastal Policy Statement. Many regional coastal plans identify areas where marine farming cannot occur as well as specifying limits on the character, intensity, or scale of acceptable activities.

In 2014, the Environmental Defence Society Inc successfully challenged an amendment to a regional coastal plan to allow an aquaculture operation. In making its initial decision, the Board of Inquiry noted that allowing aquaculture would have “high” to “very high” effects on the landscape and natural values, but the compelling economic and biosecurity benefits of the proposal outweighed those concerns. On appeal, the Supreme Court held that the Board had erred in performing that “balancing act” – the terms of the Coastal Policy Statement clearly required that the objectives of protecting natural values be implemented, irrespective of economic or other considerations.<sup>14</sup> This did not mandate that no environmental harm could occur, but required the Board to be satisfied that sustainable management could be achieved.

This decision illustrates the need for legislation to provide explicit guidance on the factors to be balanced in resource management decisions and the appropriate weights assigned in the event of conflict. The decision also highlights the value of opportunities for third party review of resource management decisions (see below).

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<sup>11</sup> Above n.3, p50

<sup>12</sup> *Marine Farming Act 1971*

<sup>13</sup> Bret Birdsong, *Adjudicating Sustainability: New Zealand’s Environment Court and the Resource Management Act*, October 1998. As found at <http://www.fulbright.org.nz/news/1998-birdsong/>.

<sup>14</sup> *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* [2014] NZSC 38

## RECOMMENDATIONS

- Update *State Coastal Policy 1996* to more effectively address use and development in catchments, coastal areas and marine areas.
- Bring marine farming within the *Land Use Planning and Approvals Act 1993* by:
  - Requiring regional coastal and marine plans to be developed through consultation with all affected stakeholders (including the public). The plans could identify appropriate zones for marine farming, set limits on intensity of development and performance based standards that must be achieved. Regional plans could be reviewed by the Tasmanian Planning Commission and implemented through planning schemes;
  - Introducing Statewide guidance for marine farming provisions in planning schemes;
  - Establishing the Marine Farming Planning Review Panel (subject to the changes discussed below) as a referral agency to consider applications for individual lease developments / expansions;
  - Providing resources to planning authorities to adequately assess applications for marine farming operations
- If the *Marine Farming Planning Act 1995* remains, ensure that a clear hierarchy of objectives is set out to guide decision making. The hierarchy should prioritise maintenance of natural values.

## Regulatory independence

Effective regulatory frameworks rely on the independence of the regulators. The Productivity Commission identified the risks associated with lack of independence (or the perception of lack of independence):

*State government departments that are primarily responsible for the aquaculture regulatory arrangements often have potentially conflicting functions of policy development, implementation of regulation, industry promotion and development, and aquaculture research. There may be some size and efficiency advantages from the grouping of certain functions, but the conflict between regulatory and development roles may lead to public and industry mistrust over resource planning and allocation, regulatory approvals, monitoring and enforcement.*<sup>15</sup>

In Tasmania, the Marine Farming Branch within DPIPWE is responsible both for promoting and regulating the marine farming industry; potentially conflicting roles. For example, although the marine farming expansion at Macquarie Harbour was carried out by three private companies, Tassal Operations Pty Ltd, Huon Aquaculture Group Pty Ltd and Petuna Aquaculture Pty Ltd, DPIPWE was listed as the proponent for the action in the referral to the Federal Environment Minister. The referral documentation was prepared by DPIPWE and submitted only two days after the decision of the Tasmanian Minister to allow amendments to the *Macquarie Harbour Marine Farming Development Plan 2005* to facilitate the expansion, making it likely that the documentation was being prepared in advance of the Minister's decision.

The close relationship between the three companies and the regulator, a history of under-regulation and enforcement (see below), and explicit support expressed by DPIPWE for aquaculture projects all affect public trust in the rigour of the regulatory framework.

In other jurisdictions, marine farming impacts are regulated by agencies with direct responsibility for environmental management, such as Scotland's Environment Protection Agency. In contrast, the legislative role of Tasmania's Environment Protection Authority (**EPA**) is limited to the Director of the EPA being a member of the Marine Farming Planning Review Panel. While the EPA may provide advice to the Marine Farming Branch within DPIPWE, assessment, monitoring and enforcement activities remain the responsibility of DPIPWE.

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<sup>15</sup> Productivity Commission 2004, *Assessing Environmental Regulatory Arrangements for Aquaculture*, Canberra, p168



The perceived lack of independence in the assessment, approval and regulation of marine farming operations also strengthens the case introducing third party review and enforcement options (see below).

## RECOMMENDATIONS

- Require applications in relation to marine farming operations to be assessed by the EPA (either as a Level 2 activity under the Environmental Management and Pollution Control Act 1994, or by way of amendment to the MFPA to provide for the assessment. The EPA can require an operation to be refused, or allow it to be approved subject to environmental management conditions.
- Authorise the EPA to monitor and enforce environmental conditions attached to any authority to conduct marine farming

## Science-based decision making

Resource management decisions must be made on the basis of scientific evidence. In Tasmania, there are three major issues in relation to this:

- Research priorities to secure baseline data
- Access to timely, objective scientific input to guide decision-making
- Public access to data

### Research priorities

In his paper examining the role of science in the aquaculture debate in British Columbia, Professor Stephen Bocking notes:

*Effective science is also a matter of genuine, two way communication between scientists and those who use scientific information: a true dialogue, ensuring that research is not only relevant, but that its results are communicated in ways consistent with public concerns and perspectives on nature and the world. Only through such dialogue are scientific assessments likely to be sensitive to political realities, and political decisions likely to be scientifically realistic.*<sup>16</sup>

The Tasmanian and Commonwealth governments continue to show clear support for the aquaculture industry and to provide funding (matched or otherwise) for research institutions such as IMAS and the Fisheries Research and Development Corporation. These research organisations continue to provide excellent research outcomes and direction on improved sustainability. However, the need for industry funding to sustain these research programmes risks a level of capture in terms of the research agenda, outcomes of such research and availability of research data.

To the greatest extent possible, research agendas should be developed with input from a broader range of stakeholders to improve the practical application and ensure the greatest public benefit from research initiatives.

### Science in decision making

Decisions in relation to aquaculture proposals (developments or expansions) are referred to the Marine Farming Planning Review Panel (the **Panel**) for assessment. The Panel is established under the *Marine Farming Planning Act 1995* as an independent body comprised of eight individuals with expertise in a range of disciplines relevant to marine farming, as set out in s.8(2) of the MFPA:

- (2) *The Panel consists of 8 persons appointed by the Governor of whom–*
- (a) *one is the chairperson of the Panel; and*

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<sup>16</sup> Bocking, S. 2007. "Wild or Farmed? Seeking Effective Science in a Controversial Environment". Conference papers published in *Spontaneous Generations* 1:1 (2007). ISSN 1913-0465. University of Toronto, p55

- (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.

Notably, while nominees under s.8(a),(c),(d), (f) and (g) could have relevant scientific expertise, there is no explicit requirement for the Panel to include a member with qualifications in relation to marine ecology, hydrology, marine sediments or conservation management. Other than s.8(g), there is also no capacity for community concerns to be represented (e.g. residents concerned regarding nuisance impacts from marine farming).

Prior to 2011, the Panel was able to determine that unacceptable proposals could not proceed. The Panel was required to take into account public submissions, the recommendations of the Marine Farming Branch and the sustainable development objectives of the MFPA in making such a determination. However, in November 2011 the MFPA was amended to remove the power of the Panel to refuse a draft amendment to a Marine Farming Development Plan. Instead, the Panel could make a recommendation to the Minister only - the Minister would have the final decision in relation to the proposal and could also make any changes to the proposal without further consultation. The history of that amendment is discussed in more detail in [Attachment 2](#).

The Panel has an explicit mandate when assessing a proposed aquaculture development to consider whether the proposal can satisfy sustainability objectives. There may be good reasons why the Minister, having responsibility for a range of portfolios, would not accept a recommendation from an expert Panel to approve a proposed aquaculture development, even though the proposal, when considered in isolation, is considered to be sustainable. For example, the Minister may consider that the proposal will have unacceptable visual or amenity impacts on nearby residents, may interfere with views from key tourist spots or may place an undue burden on local government infrastructure.

In contrast, there can be no good reason to allow proposed marine farming activities where the independent, scientific expert Panel has determined that the amendments are not sustainable and recommended refusal. Decisions made by the Panel to refuse a proposal should be final (subject to a right of review – see below).

### **Adaptive management**

Generally, assessment and regulation of marine farming in Tasmania adopts an adaptive management approach. While we recognise that there are benefits to adaptive management which responds to unanticipated problems, adaptive management should not be used to overcome shortcomings in scientific evidence presented with an application.

If sufficient data is not provided to clearly identify risks and satisfy the decision maker that impacts on environmental values can be avoided, minimised or appropriately managed, further information should be requested from the proponent or the proposal should be refused. Reliance on adaptive management to overcome data shortfalls (rather than to deal with new information) is inappropriate, particularly in relation to impacts on endangered species.

For example, one significant concern in relation to the Macquarie Harbour expansion was the potential impact on the Maugean skate, *Zearaja maugeana*, an endangered species with a

restricted habitat range and an estimated population of only 2,500.<sup>17</sup> One of the identified threats to the species is increased nutrient levels, an outcome that was predicted to occur as a result of the proposed expansion. Environmental organisations raised concern that not enough was known about the ecology or biology of the Maugean skate, or the likely movement of nutrients within Macquarie Harbour, to ensure the species would not be significantly impacted.

The Marine Farming Branch within DPI/PWE recommended that the expansion be approved, despite noting that IMAS advice confirmed that there was “currently no information about the potential effects of salmon farming in Macquarie Harbour on the Maugean skate” and a dedicated survey to identify trigger values would not be completed until September 2012 (after the anticipated commencement of operations in Macquarie Harbour).

The Panel also acknowledged the lack of data regarding nutrient enrichment, the nature or effect of that enrichment and the potential effects of the expansion on the Maugean skate. Despite this, the Panel’s recommendation, and the subsequent documentation supporting the referral to the Federal Environment Minister, made a number of broad statements such as:

- “It is possible that skates will continue to be able to utilise the lease area”;
- “It therefore could be concluded that solid wastes are unlikely to have a significant impact on the Skate, based on the currently available information on the biology and ecology of the species.”

Those statements were not supported by the limited information available regarding the extent (and depth) of habitat of the threatened species, its grazing and breeding habits and its susceptibility to nutrient changes, as well as limited data regarding nutrient movement in the Harbour. Subsequent nutrient and dissolved oxygen levels experienced in Macquarie Harbour, and the impact of those levels on fish health and farm productivity<sup>18</sup> raise concerns that more rigorous baseline data should have been required as part of the assessment process rather than post-approval.

At the very least, data provided with a proposal must be sufficient to enable appropriate performance triggers to be set. In relation to the Maugean skate, this was not done.

## RECOMMENDATIONS

- Require the Panel to include a member with qualifications and expertise in relation to marine ecology and hydrology.
- Require the Panel to include a member representing community issues.
- The MFPA should be amended to reverse the 2011 amendments and re-authorise the Panel to refuse applications for marine farming proposals that cannot meet sustainability objectives. To ensure that natural justice is achieved, any person affected by the decision, including third parties who made representations, should be entitled to appeal against a refusal.
- Decision-making frameworks must require sufficient scientific data to be provided in order to assess the potential impacts of aquaculture proposals *before* approvals are given. The MFPA must require the Panel and the Minister to be satisfied as to the likely impacts of a proposal and to identify clear thresholds which, if exceeded, will require operations to cease.

<sup>17</sup> Parsons, K. 2011. *Nowhere Else on Earth: Tasmania’s Marine Natural Values*. Report prepared for Environment Tasmania, Aqenal. Available at [oceanplanet.org.au/resources/nowhere-else-on-earth-tasmanias-marine-natural-values/](http://oceanplanet.org.au/resources/nowhere-else-on-earth-tasmanias-marine-natural-values/).

<sup>18</sup> See, for example, “Salmon Farmers Fear for Water in Macquarie Harbour”

[http://www.themercury.com.au/news/politics/salmon-farmers-fear-for-water-in-macquarie-harbour/story-fnpp9w4j-](http://www.themercury.com.au/news/politics/salmon-farmers-fear-for-water-in-macquarie-harbour/story-fnpp9w4j-1227247445832)

[1227247445832](http://www.themercury.com.au/news/politics/salmon-farmers-fear-for-water-in-macquarie-harbour/story-fnpp9w4j-1227247445832), the submission to this Inquiry by Environment Tasmania and Senate Hansard, 2 March 2015, regarding leaked industry documents.

## Transparency and review options

In order to secure public support and confidence, regulatory frameworks must be transparent and subject to scrutiny. This requires public involvement in decision-making, access to information on which decisions are based, and opportunities to challenge decisions on the basis that they will not achieve stated sustainable outcomes.

*Firstly, determining what is sustainable for a community will depend on accurately ascertaining the community's preferences, which is best done by incorporating them into the decision making process. Second, it is generally accepted that better environmental decisions will result from a greater flow of information, including information that is held or developed by the members of local communities. Finally, open public participation is encouraged on fairness grounds; if decisions are to be made that will broadly affect the community, then it is fair to provide members of the community the opportunity to participate.<sup>19</sup>*

### Access to information - assessments

The MFPA currently provides for applications for amendments to Marine Farming Development Plans to facilitate expansion or relocation of marine lease areas to be publicly advertised. Supporting material in relation to the expansion (including Environmental Impact Statements) is also required to be published. Any person may make a representation in respect of the proposal and request to appear at the Panel hearing to outline their concerns. While there are variations in the quality of data presented with an application, the statutory obligation to provide access to information and to involve the public in the decision making process must be commended.

It is consistent with other land use processes, and with international marine farming practices, to facilitate public involvement in decisions regarding marine farming operations.

### Access to information – regulatory actions

In contrast, the same level of transparency has not been achieved in relation to ongoing regulation of marine farming operations. In 2004, the Productivity Commission noted in relation to all aquaculture jurisdictions:

*At present, there appears to be limited reporting by, and auditing of, the main agencies responsible for aquaculture and environmental regulatory arrangements in each state... Within confidentiality restrictions, aspects of regulatory and approval processes that could be reported on include: the number of applications; the number approved/rejected; discretionary approvals; exemptions; processing times; appeals; monitoring and enforcement actions. As well as potentially improving accountability and transparency, reporting such information may help to improve the application of regulation by identifying potential regulatory constraints and opportunities for improvements with approval processes.<sup>20</sup>*

This observation remains true a decade later. It is our experience that obtaining access to information regarding monitoring, compliance and enforcement action can be extremely difficult. The information is rarely accessible without a Right to Information request (which may take many months to be resolved), and such applications are often refused on the basis of commercial in confidence exemptions or the volume of material that would need to be supplied.

In contrast, while monitoring requirements in Canada are largely discretionary, the law requires all information regarding environmental assessments that are undertaken to be made publicly available. This assists with the transparency of monitoring and encourages performance improvements.

Another justification given for the refusal to release monitoring data voluntarily submitted by industry is that its release would discourage future voluntary data submissions. This is not a valid justification, given DPIPWE's powers to compel the submission of relevant data. While there are clear advantages to maintaining good regulatory relationships with industry, where data is in the public interest (particularly where it relates to public or environmental health), the information should be both required to be submitted and readily available to any interested person.

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<sup>19</sup> Bret Birdsong, "Adjudicating Sustainability: New Zealand's Environment Court and the Resource Management Act", October 1998. As found at <http://www.fulbright.org.nz/news/1998-birdsong/>

<sup>20</sup> Above n3, pp134-135

## Merits review

In controversial resource management issues, including aquaculture, debate centres around scientific information (including the lack of information, or difficulty of accessing information). As a result, rigour and transparency in the assessment process is critically important. However, it is not uncommon for different stakeholders to point to conflicting scientific information to support their views, as Professor Stephen Bocking points out:

*Science has been used by all parties, not just as a source of information about risks and benefits, but as a source of authority. Both those who favour [marine]farming and those who oppose it invoke science to support their arguments, their framing of the issue (as a question of managing an economically valuable, environmentally sound activity, or conversely, of protecting wild salmon stocks from a hazardous industry), and their claims to be presenting an objective, impartial perspective.<sup>21</sup>*

Recognising the ability to use evidence selectively (and politically) to further different objectives, it is critical for evidence used in decision making to be independently tested through merits review. Unfortunately, there are limited opportunities for such review under the current Tasmanian regulatory framework.

For most significant land use and development decisions under LUPAA, any person who made a representation can appeal to the Resource Management and Planning Appeal Tribunal. The appeal will be heard *de novo*, meaning that the Tribunal effectively re-hears the evidence and makes its own determination as to whether the use or development should proceed. This is also the case in New Zealand<sup>22</sup> and Scotland.

In contrast, there is no right to appeal against a decision under the *Marine Farming Planning Act 1995* to amend a Marine Farming Development Plan to facilitate an aquaculture proposal. Particularly given concerns regarding the independence of the decision-making structure under the MFPA (see above), a right of appeal is important and should be open to any person who made a representation in respect of the proposal (including affected residents, NGOs, other industries, tourism operators and the local government).

Allowing a right of appeal to the Resource Management and Planning Appeal Tribunal would provide appropriate scrutiny from a body with experience in resource management and procedural fairness that is required to further the sustainable development objectives of the Resource Management and Planning System. The Tribunal has powers to dismiss frivolous appeals and to award costs in appropriate situations, which is sufficient to deter appeals which lack merit.

## RECOMMENDATIONS

- Encourage the proactive release of information including monitoring reports, number of complaints received, enforcement action taken and follow up reports
- DPIPWE should amend lease and licence conditions to require monitoring data to be provided regularly, rather than relying on voluntary contribution of information by regulated operators
- Allow all parties (including the proponent and any person who made a representation) to appeal to the Resource Management and Planning Appeal Tribunal against a decision to amend a marine farming development plan to facilitate a new marine farming operation

**Note:** *bringing marine farming planning and approvals under LUPAA would generally mean that such decisions would be subject to merits review by the Tribunal*

<sup>21</sup> Bocking, S. 2007. "Wild or Farmed? Seeking Effective Science in a Controversial Environment". Conference papers published in *Spontaneous Generations* 1:1 (2007). ISSN 1913-0465. University of Toronto, p55

<sup>22</sup> *Resource Management Act 1991*, s.120 (resource contents; First Schedule, s.14(1) (policy statements and plans)

## Monitoring and enforcement

Even subject to the reservations outlined above, adaptive management will not be effective without appropriate monitoring and enforcement activities to facilitate adaptation. Encouraging improved performance will only be successful if there is a credible threat that stronger action will be taken if no improvement is demonstrated.

For example, the Marine Farming Development Plan for Tasmania's D'Entrecasteaux Channel imposes a plan-wide nitrogen cap to control nutrient impacts. However, there is currently limited monitoring to determine whether the cumulative contribution of each lease area to the nitrogen load exceeds the cap, and no ongoing assessment to determine whether the existing cap is set at a sustainable level (particularly having regard to other land-based nutrient sources contributing to the nitrogen load in the Channel).

The Productivity Commission noted in 2004 that, while critical for regulatory effectiveness, monitoring and enforcement activity often "appears to suffer from a lack resources."<sup>23</sup> This remains the case, and is generally used to justify the reliance on self-monitoring. In New Zealand, the costs of monitoring activities carried out by the Ministry of Conservation or the local planning authority are paid for by marine farm operators.<sup>24</sup> At the time of the Productivity Commission report, a similar position existed in Tasmania.<sup>25</sup>

The Productivity Commission also noted that regular auditing and review of monitoring and enforcement systems can have benefits for all stakeholders by improving the effectiveness and efficiency of operations.<sup>26</sup>

### Monitoring

There is currently limited independent monitoring of marine farming operations – the Marine Farming Branch relies largely on reports and video surveillance submitted by the operators themselves every 6 or 12 months. A recent review by Hugh Kirkman<sup>27</sup> questioned whether this monitoring regime is adequate to identify and respond to risks. In particular, Kirkman stated that the frequency of video samples "seems inadequate for a meaningful assessment of impacts" and recommended that surveillance be conducted more regularly.<sup>28</sup>

The Broadscale Environmental Monitoring Program provides data on water quality across the south-east, but is collated only every three years. There are concerns that the monitoring sites selected as for that program are not representative and do not provide relevant data for modelling or managing the impacts of marine farming in the south east. Lack of pre-marine farming baseline data relating to environmental health also limits the capacity of the monitoring programme to identify the extent and impact of changes in nutrients.<sup>29</sup>

As outlined above, it has been our experience that it is difficult for the public to obtain access to monitoring data.

### Enforcement

There are a number of enforcement options under the MFPA and *Living Marine Resources Management Act 1995*, including

- Fines up to \$6,500 for marine farming equipment being located outside a lease area<sup>30</sup>;

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<sup>23</sup> Above n3, p.135

<sup>24</sup> *Resource Management Act 1991*, s. 36(1)(c)

<sup>25</sup> Above n3, p.131

<sup>26</sup> Above n3, p134-135

<sup>27</sup> Kirkman, H. 2014. *Review of Monitoring the Environmental Effects of Salmon Farming in Tasmania*. Available at [www.et.org.au](http://www.et.org.au)

<sup>28</sup> Above n23, p4

<sup>29</sup> Ross, D and C. MacLeod. 2013. *Evaluation of Broadscale Environmental Monitoring Program*. Available at [www.dpipwe.tas.gov.au](http://www.dpipwe.tas.gov.au)

<sup>30</sup> MFPA, s.94

- Fines up to \$65,000, or up to 2 years in prison, for contravening marine farming licence conditions<sup>31</sup>;
- Issuing infringement notices (fines up to \$650) for minor breaches;
- Allocation of demerit points for offences – accumulation of 200 demerit points over 5 years may lead to temporary disqualification from obtaining a marine farming licence;
- Cancellation or suspension of licence for 5 years if the licence holder contravenes the licence conditions<sup>32</sup>.

Despite this range of options, a review of reported enforcement activities indicates that many observed breaches are unpunished and fines, if imposed, rarely exceed \$500 (see **Attachment 2**). Without more consistent and effective enforcement activity, there is little incentive for marine farming operations to achieve, much less exceed, their obligations.

The objective of any enforcement activity is improved performance, rather than simply penalising the offender. However, it is clear from Attachment 2 that the approach being taken has little deterrent value and has failed to prevent ongoing environmental impacts. Similarly, while the Productivity Commission commended Tasmania's 'demerit system' for marine farming, the requirement to accumulate 200 demerit points before any serious consequences occur significantly reduces the efficacy of the system as a deterrent against breaches.

Given the 'clean, green' branding of Tasmania's marine farming companies, and their susceptibility to reputational damage, introducing penalties that require publication of transgressions may provide an appropriate deterrent.

To ensure that enforcement actions are effective, and consistently applied, DPIPWE and the EPA should adopt clear enforcement guidelines setting scientifically-based performance indicators, identifying a scale of enforcement actions, and indicating which actions will be taken in response to failure to meet those indicators (including graded increases in enforcement activity for repeat offenders).

### **Civil enforcement**

Both LUPAA and the *Environmental Management and Pollution Control Act 1994* provide opportunities for any person with a 'proper interest' to take action in the Tribunal where the provisions of the Act are being breached (e.g. a permit is not being complied with or unlawful environmental harm is being caused). The opportunity for a third party to take action where the regulator has failed to do so is significant to public confidence and acts as a further deterrent against contraventions by proponents.

Similar opportunities are provided by the legislation in New Zealand<sup>33</sup> and Canada.<sup>34</sup> The introduction of wide civil enforcement powers such as those in place in New Zealand or under LUPAA would significantly improve enforcement outcomes in Tasmania.

### **RECOMMENDATIONS**

- Direct the Auditor-General to undertake a review of monitoring and compliance activities undertaken under the MFPA and *Living Marine Resources Management Act 1995*
- Request advice from IMAS regarding the desired frequency of monitoring at marine farming sites, and implement any advice received
- Monitoring activities should be conducted by the EPA, with costs recovered from proponents through higher licensing fees and all data published on the EPA website
- Allow any interested person to commence civil enforcement proceedings where lease or licence conditions are not being met

<sup>31</sup> *Living Marine Resource Management Act 1995*, s.86A

<sup>32</sup> *Living Marine Resource Management Act 1995*, s.90

<sup>33</sup> *Resource Management Act 1991*, ss.316(5) and 338(4)

<sup>34</sup> *Farm Practices Protection (Right to Farm) Act*, R.S.B.C. 1996, c. 131

- Develop a clear Enforcement Policy (similar to the one currently in place for the *Environmental Management and Pollution Control Act 1994*) to guide enforcement activity, including thresholds for action, innovative enforcement techniques (such as remediation orders or 'name and shame' provisions) and escalating penalty scales.

## Relationship between Commonwealth and State regulations

The Commonwealth Government has limited involvement in relation to marine farming operations, unless those operations are likely to have a significant impact on matters of national environmental significance under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

Significantly, the Macquarie Harbour expansion was referred to the Federal Minister under the EPBC Act but the Minister determined that the action was not a controlled action provided it was carried out in accordance with the *Macquarie Harbour Marine Farming Development Plan 2005* (as amended). For the reasons outlined above, we have concerns about whether compliance with that plan is sufficient to avoid significant impacts on the listed Maugean skate or the values of the adjacent Tasmanian Wilderness World Heritage Area.

The risk in determining that the action is not controlled is that the Federal Minister is now unable to intervene to address significant impacts, unless the Minister is satisfied that the action is not being carried out in the manner described. This unduly restricts the Minister's ability to take action to protect threatened species and World heritage values.

However, pursuant to s.78 of the EPBC Act, the Minister may revoke the decision that the action is not a controlled action and replace it with a decision that the matter IS a controlled action that requires assessment, IF satisfied that is warranted because:

- Substantial new information about the impacts of the action is available;
- A substantial change in circumstances has occurred that was not foreseen at the time of the decision

In light of recent evidence of nutrient issues, low dissolved oxygen levels and concerns regarding expected water flows, the Federal Minister should consider revoking his original decision and requiring an assessment of the Macquarie Harbour expansion under the EPBC Act. Such an assessment would allow appropriate stocking caps to be set to ensure that nutrient levels do not impact on matters of national environmental significance. Recognising the operation as a controlled action would also allow for the Federal Minister to take enforcement action where the Tasmanian government regulators have failed to do so.

## RECOMMENDATION

- The Federal Environment Minister should exercise his power under s.78 of the EPBC Act to review the decision that the Macquarie Harbour expansion was not a controlled action.





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11 May 2012

Secretary  
Standing Committee on Agriculture, Resources, Fisheries and Forestry  
House of Representatives  
PO Box 6021  
Canberra ACT 2601

By email: [arff.reps@aph.gov.au](mailto:arff.reps@aph.gov.au)

Dear Sir / Madam

## Inquiry into the Role of Science for Fisheries and Aquaculture

The Environmental Defenders Office (Tas) Inc (**EDO Tasmania**) is a non-profit, community based legal service specialising in environmental and planning law. As a legal centre, our submission concentrates on the issue of governance arrangements, and the role of science in guiding regulatory decision-making in relation to fisheries and aquaculture.

In March 2012, EDO Tasmania hosted a multi-stakeholder conference, "*Managing Marine Farming: Have We Achieved Best Practice?*", which looked at the experience of marine farming planning and operation in Tasmania and internationally<sup>1</sup>. Our comments to this inquiry arise largely from discussion generated by that conference.

### Summary of comments

- Readily available access to credible science is essential to regulatory decision making as a mechanism to achieve sustainable development. In the fisheries and aquaculture context, scientific information must form the basis for decisions regarding strategic planning, assessment of proposals, monitoring programmes, enforcement activities and, where necessary, law reform.
- Fisheries and aquaculture management should explicitly adopt holistic, ecosystem-based management strategies and a precautionary approach.
- Decision-making frameworks must require sufficient scientific data to be provided in order to assess the potential impacts of aquaculture proposals *before* approvals are given. Reliance on adaptive management to overcome data shortfalls (rather than to deal with new information) is inappropriate, particularly in relation to impacts on endangered species.
- Opportunities should be provided for merits review of decisions in relation to fisheries and aquaculture proposals, to ensure evidence is subject to rigorous, objective assessment.
- While recognising resource pressures on government agencies, environmental monitoring should be conducted (or at least audited) by independent organisations, rather than relying on industry self-monitoring.

<sup>1</sup> Conference papers for the *Managing Marine Farming* forum are available at [www.edo.org.au/edotas](http://www.edo.org.au/edotas)

- Government agencies need to adopt rigorous compliance guidelines and develop a culture of consistent, incremental enforcement activity in response to breaches of licence conditions. Enforcement guidelines should establish clear, scientifically-based performance indicators and triggers for enforcement action.
- Regulatory agencies should also look to gaps in available science to guide an objective research agenda. While contributions from affected industries should not be discouraged, such contributions should not influence assessment decisions or divert the general scientific agenda away from public interest sustainability research and towards research into commercial innovations. To manage this risk, multi-stakeholder panels (including community, ENGO, academic and industry representatives) should be appointed to set scientific research priorities, monitor and disseminate research, and oversee the evaluation and application of the results of scientific research.
- EDO Tasmania supports development of accreditation programmes (such as the proposed Aquaculture Stewardship Council certification), provided the certification criteria are rigorous and transparent. Criteria must consider environmental outcomes, not just processes - having an environmental management plan should not be sufficient to satisfy the requirements, the applicant must demonstrate that the plan has been successfully implemented, is responsive, and is achieving sustainability outcomes.
- Once a rigorous certification programme is established, government funding for aquaculture projects should be contingent upon the recipient achieving certification.

## Role of science

Having access to timely, relevant, evidence-based science is essential to regulatory decision making. Regulatory agencies must be guided by available science to provide the basis for planning and assessment decisions, and look to gaps in available science to guide the research agenda.

In his paper examining the role of science in the aquaculture debate in British Columbia, Professor Stephen Bocking notes:

*Science must also be effective, which means solving problems and advancing the policy agenda. This entails fulfilling a diversity of roles, from anticipating emerging issues, to addressing those with which we are already familiar. And this, in turn, requires a very broad definition of relevance, to be achieved, as philosophers of science such as James Brown have argued, through a pluralistic research strategy. Such a strategy would draw on a diversity of participants in setting research priorities acknowledging, in particular, the essential role that independent scientists like Alexandra Morton have played in broadening the salmon farming research agenda. Effective science is also a matter of genuine, two way communication between scientists and those who use scientific information: a true dialogue, ensuring that research is not only relevant, but that its results are communicated in ways consistent with public concerns and perspectives on nature and the world. Only through such dialogue are scientific assessments likely to be sensitive to political realities, and political decisions likely to be scientifically realistic.<sup>2</sup>*

The challenges experienced in British Columbia are replicated in a range of environmental controversies, and certainly risk being replicated in relation to Tasmania's aquaculture management arrangements. Given this, there are clear benefits for the government in:

- articulating a clear policy position and the strategic research agenda necessary to achieve that position;

<sup>2</sup> Bocking, S. 2007. "Wild or Farmed? Seeking Effective Science in a Controversial Environment". Conference papers published in *Spontaneous Generations* 1:1 (2007). ISSN 1913-0465. University of Toronto, p55

- involving a range of interest groups in setting the research agenda; and
- ensuring public access to the research results.

Equally, as discussed below, the public needs to be given an opportunity to comment on scientific assessment submitted in support of proposals, and to seek review of the assessment in appropriate circumstances.

A range of research organisations, including the Fisheries Research and Development Corporation and IMAS, provide excellent research outcomes and direction on improved sustainability. However, we believe that allowing future research agendas to be developed with input from a broader range of stakeholders will improve practical application and ensure the greatest public benefit from research initiatives.

### **Strategic, precautionary approaches**

At a minimum, broad scientific knowledge should be implemented through holistic management frameworks, and strategic approaches to planning for fisheries and aquaculture projects. In this regard, we strongly endorse the recognition in the 2007 Commonwealth *Guidelines for the Ecologically Sustainable Management of Fisheries* that:

*Those who depend on our oceans for their social, economic and cultural requirements recognise the need for ecosystem based fisheries management, particularly the need for precautionary management of fisheries.*

Strategic and precautionary approaches are particularly important in respect of appropriate management of, and adaptation to, predicted impacts of climate change on the fishing and aquaculture industries, and the ecosystems on which they rely. However, in practice, these approaches are often inadequately implemented.

#### **Example 1: Tasmanian Rock Lobster Fishery**

In February 2012, the Tasmanian Rock Lobster Fishery received export approval under s.303DC of the *Environment Protection and Biodiversity Conservation Act 1999*. The decision to give export approval (by amending the list of exempt native specimens) must be made having regard to the precautionary principle. However, despite overwhelming scientific evidence that declining populations of large Rock Lobsters within the fishery has resulted in proliferation of urchin barrens that threaten biodiversity generally, and the commercial viability of Tasmania's abalone industry, the Minister's delegate was satisfied that export could continue for a further five years.

His statement of reasons notes that he was satisfied that the Tasmanian government would continue to work on localised management areas, annual reviews of catch limits and continued research into urchin control to address the issue. However, an IMAS report submitted with the application for accreditation noted that the most efficient way to allow stocks to recover to levels where predation on urchins would address sustainability concerns was to close the fishery for a significant period.

Given the strength of evidence regarding the ecological and economic impacts of urchins, and the essential role of increased rock lobster populations in addressing those impacts, the extension of export approval for a further five years cannot be seen as precautionary.<sup>3</sup>

#### **Example 2: Impacts on Maugean Skate in Macquarie Harbour**

Tasmania's three largest aquaculture companies, Tassal Operations Pty Ltd, Huon Aquaculture Group Pty Ltd and Petuna Aquaculture Pty Ltd, are currently seeking approval to expand their operations in Macquarie Harbour (see [www.dpipwe.tas.gov.au](http://www.dpipwe.tas.gov.au)). The

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<sup>3</sup> The Tasmanian Conservation Trust submission to this Inquiry provides more details in relation to the Tasmanian Rock Lobster situation.

proposed expansion will increase the area under marine farming leases from 564 hectares to 926 hectares (an increase of approximately 60%).

One significant concern in relation to the proposal is the potential impact on the Maugean skate, *Zearaja maugeana*. The Maugean skate, "a Gondwanan relic that is the oldest lineage of skate in the world", has an estimated population of only 2,500 and its habitat range is restricted to Bathurst Harbour – Port Davey and Macquarie Harbour.<sup>4</sup> Given low population numbers and highly limited distribution, any reduction or fragmentation of habitat or disruption of breeding cycles may lead to a significant impact on the species.

One of the identified threats to the species is increased nutrient levels, an outcome predicted to occur as a result of the proposed expansion.

In response to concerns raised by environmental organisations that not enough was known about the ecology or biology of the Maugean skate, or the likely movement of nutrients within Macquarie Harbour, to ensure the species would not be significantly impacted, the Marine Farming Branch of the Department of Primary Industries, Parks, Water and Environment recommended that the expansion be approved. Significantly, the Marine Farming Branch report noted:

- Updated IMAS advice confirmed that "There is currently no information about the potential effects of salmon farming in Macquarie Harbour on the *Maugean skate*"
- A dedicated harbour-wide sampling program is currently underway involving collection of data on a monthly basis from October 2011 to September 2012 at representative sites across Macquarie Harbour, which would be used to identify trigger values to be "built into the regulatory adaptive management framework and used to manage marine farming in Macquarie Harbour."
- "Should the proposed amendment be approved, it is anticipated that fish would be introduced into new lease sites in August 2012."
- "It is proposed that if marine farming activities were having a significant impact on the Maugean skate then this would likely be observed in video footage undertaken in the monitoring of industry."

Given the scientific advice that it was not currently possible to predict the impact of salmon farming on the Maugean skate, and the fact that even the preliminary sampling and monitoring work would not be completed until September 2012, seeking approval to get fish in pens by August 2012 (before appropriate trigger limits have been set) is not precautionary. Similarly, relying on video footage submitted every 12 months to determine whether there is any material impact on a highly localised endangered species is not precautionary, and may not be responsive enough to adequately protect the species.

This proposal is currently being assessed by the Marine Farming Planning Review Panel. The Panel is expected to make a recommendation to the Minister regarding the proposal by the end of May 2012.

### Science-based decision making

As discussed above, it is critical that resource management decisions be made on the basis of scientific evidence. Recent amendments to Tasmania's *Marine Farming Planning Act 1995* have moved decision-making in relation to aquaculture proposals away from a scientific basis and allowed the decisions to be more politically motivated.

The Marine Farming Planning Review Panel (the **Panel**) is established under the *Marine Farming Planning Act 1995* as an independent panel comprised of eight individuals with expertise in a range of disciplines relevant to marine farming. Prior to the recent

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<sup>4</sup> Parsons, K. 2011. *Nowhere Else on Earth: Tasmania's Marine Natural Values*. Report prepared for Environment Tasmania, Aqenal. Available at [oceanplanet.org.au/resources/nowhere-else-on-earth-tasmanias-marine-natural-values/](http://oceanplanet.org.au/resources/nowhere-else-on-earth-tasmanias-marine-natural-values/) ('**Nowhere Else on Earth**'). A hard copy of the report can be provided on request.

amendments, the Panel was responsible for assessing proposed amendments to marine farming development plans to allow expansion, relocation or other changes to marine farming activities and able to refuse inappropriate proposals. The Panel was required to take into account public submissions, the recommendations of the Marine Farming Branch and the sustainable development objectives of the legislation.

In March 2011, the Panel exercised its powers to refuse a proposed amendment which would have allowed an expansion of Tassal's operations at Soldiers Point in the D'Entrecasteaux Channel (the **Soldiers Point decision**). Having regard to all the evidence, the Panel considered that the projected economic benefits of the proposed expansion did not outweigh the adverse impacts of the proposal on a fragile reef system near the site.

Referring to this decision in parliament on 17 May 2011, the Premier stated:

*This is the first instance of the panel rejecting a draft amendment according to section 41(2)(b) of the Marine Farming Planning Act 1995. This development would have allowed eight more stocked cages at the farm, which would have enabled better fish health management practices and more investment. **It is disappointing that it did not go ahead but there is a planning system in place. It has gone through the planning system and that independent expert panel has brought down its deliberations on this matter.** (emphasis added)*

Despite this apparent faith in the established planning process, in November 2011 the government enacted the *Marine Farming Planning Amendment Act 2011*. Significantly, the amending legislation removed the power of the Marine Farming Planning Review Panel to refuse a draft amendment to a Marine Farming Development Plan. Instead, that decision now rests with the Minister for Primary Industries, who has also been given power to make any changes to the proposed amendments he considers appropriate without further consultation.

In his second reading speech when introducing the *Marine Farming Planning Amendment Bill 2011*, Primary Industries Minister, Bryan Green, made it clear that the amendments were made in direct response to the Soldiers Point decision – an explicit indication the amendments were intended to allow decisions regarding aquaculture development to be determined on the basis of politics rather than science. Furthermore, the amendments were introduced one week after the application to allow expansion of aquaculture in Macquarie Harbour was released for public comment. The Minister, and the government generally, have been explicit in their support of that proposal.

The Panel has an explicit mandate to consider whether a proposed aquaculture development can satisfy sustainability objectives. There may be good reasons why the Minister, having responsibility for a range of portfolios, would not accept a recommendation from an expert Panel to approve a proposed aquaculture development, even though the proposal, when considered in isolation, is considered to be sustainable. For example, the Minister may consider that the proposal will have unacceptable visual or amenity impacts on nearby residents, may interfere with views from key tourist spots or may place an undue burden on local government infrastructure.

In contrast, there can be no good reason to allow proposed marine farming activities where the independent, scientific expert Panel has determined that the amendments are not sustainable and recommended refusal.

We urge the Committee to recommend that the amendments to the *Marine Farming Planning Act 1995* be repealed, and the Minister be required to adopt the recommendations of the Panel (subject to merits review, discussed below).

## Adaptive management

### Minimum data requirements

The EIS and government response in respect of Macquarie Harbour emphasise the role of adaptive management in aquaculture, to respond to new issues as they arise. While we recognise that there are definite benefits to adaptive management which responds to unanticipated problems, adaptive management should not be used to overcome shortcomings in scientific evidence presented with an application.

That is, if sufficient data is not provided to satisfy the decision maker that impacts will be avoided, minimised or appropriately managed, the proposal should be refused, or further information sought from the proponent. The application should not be approved, subject to conditions requiring information to be submitted later which could indicate that the proposal was inappropriate.

Furthermore, adaptive management requires triggers for adaptation to be identified. The information provided at the outside must be sufficient to enable appropriate triggers to be set.

### Responsive management

Adaptive management will also not be effective without appropriate monitoring and enforcement activities to facilitate adaptation. Encouraging improved performance will only be successful if there is a credible threat that stronger action will be taken if no improvement is demonstrated.

There are a number of enforcement options under the relevant legislation, including:

- Fines up to \$6,500 (or \$650 per day for a continuing offence) for marine farming equipment being located outside a lease area (s.94 of the *Marine Farming Planning Act 1995*);
- Fines up to \$65,000 (or \$6,500 per day for a continuing offence), or up to 2 years in prison, for contravening marine farming licence conditions (s.86A, *Living Marine Resource Management Act 1995*);
- Issuing infringement notices (fines up to \$650);
- Allocation of demerit points for offences – accumulation of 200 demerit points over 5 years may lead to temporary disqualification from obtaining a marine farming licence;
- Fines up to \$650,000 or up to 2 years in prison for contravening Fisheries Rules; or
- Cancellation or suspension of licence for 5 years if the licence holder contravenes the licence conditions (s.90, *Living Marine Resource Management Act 1995*).

There appears to be a relatively active enforcement culture in relation to fisheries management, where people are regularly fined or prosecuted for taken in excess of quotas, taking species out of season or fishing without a licence.

In contrast, the table in **Attachment 1** was compiled from a review of Departmental correspondence regarding non-compliance in respect of marine farming licences from January 2006 – January 2012. Despite the range of enforcement options available, many observed breaches are unpunished and fines of only \$400-\$520 have been issued in respect of repeated, and what should be regarded as reasonably significant, breaches. For example:

- **Pillings Bay, Lease No 176** – In 2008, spontaneous out-gassing is observed. In 2009, out-gassing was evident at one bay and “thin to feint” patches of *Beggiatoa* were observed. In 2010, the *Beggiatoa* was described as extensive and observed in “thick mats”. Despite three years of apparently worsening conditions, no penalty was imposed. The value of the adaptive management approach is questionable if the result was a spread of *Beggiatoa*.

- **Liberty Point, Lease No 217** – despite observations that “the level of organic enrichment has resulted in significant impacts and breaches of licence conditions”, no fine was imposed.
- **Great Taylors Bay, Lease No 203** - complaints regarding equipment outside the lease area was made for four months without change, before a fine of only \$400 + 4 demerit points was imposed (NB: 200 demerit points are required before any serious consequences flow from their accumulation).
- **Hideaway Bay, Lease No 93** – DPIPWE officers identified equipment outside the lease area, inadequate marking of the lease area and dead and dying birds entangled in nets. The officer observed that Huon Aquaculture had made no effort to remove the birds. A fine of \$500 was imposed.

While the objective of any enforcement activity is improved performance, rather than penalising the offender, the repeated offences shown in the table do not suggest that the small fines imposed have much deterrent value.

We recommend that DPIPWE adopt clear enforcement guidelines setting scientifically-based performance indicators, identifying a scale of enforcement actions, and indicating which actions will be taken in response to failure to meet those indicators (including graded increases in enforcement activity for repeat offenders). Importantly, DPIPWE must take consistent action in accordance with its guidelines where monitoring reveals that performance indicators are not met.

## Monitoring

It is self-evident that adaptive management approaches, and sustainable management generally, will not succeed without rigorous scientific monitoring against key performance indicators.

While we recognise the limited resources available to government agencies for monitoring activities, particularly where marine farming and fishing operations occur in regional areas, regular monitoring should be undertaken by the regulator, rather than relying on monitoring submitted by the industry itself. At a minimum, regular, random and unannounced audits of monitoring results must be undertaken to provide some assurance that the results submitted are accurate and representative of the impacts being caused by operations.

## The value of merits review

Science often fuels debate on controversial environmental management issues, such as fisheries and aquaculture, with all sides of the debate drawing on scientific information to support their views. As discussed above, it is critical that resource management decisions be made on the basis of rigorous and transparent scientific evidence, however, as Professor Bocking points out:

*In all these debates environmental knowledge is strongly evident. Science has been used by all parties, not just as a source of information about risks and benefits, but as a source of authority. Both those who favour farming and those who are opposed invoke science to support their arguments, their framing of the issue (as a question of managing an economically valuable, environmentally sound activity, or conversely, of protecting wild salmon stocks from a hazardous industry), and their claims to be presenting an objective, impartial perspective.*

Recognising the ability to use evidence selectively (and politically), it is critical that the evidence used in decision making be able to be independently tested through merits review. Unfortunately, such opportunities are limited in respect of fisheries and aquaculture management.

Following the challenge by the Humane Society International to the decision to declare the Southern Bluefin Tuna fishery as an approved wildlife trade operation in 2006<sup>5</sup>, the EPBC Act was amended to remove the right to appeal against Ministerial decisions on wildlife trade operations. Similarly, no right of appeal exists for decisions to accredit fisheries management plans or to amend the list of exempt native specimens for export purposes. There is also no right to appeal against a decision under the *Marine Farming Planning Act 1995* to approve an amendment to a Marine Farming Development Plan to facilitate an aquaculture proposal.

Particularly where, as in Tasmania, the agency responsible for assessing and monitoring marine farming activities is also responsible for active promotion of the industry, a right of appeal is important and should be open to any person who made a representation in respect of the proposal (including affected residents, NGOs, other industries, tourism operators, the local government).

In Tasmania, a right of appeal would allow the decision to be reviewed by the Resource Management and Planning Appeal Tribunal. The Tribunal has powers to dismiss frivolous appeals and to award costs in appropriate situations, which is sufficient to deter appeals lacking in merit.

We urge the Committee to advocate for appeal rights in respect of relevant fisheries and aquaculture decisions to ensure that science-based decisions are subject to appropriately rigorous review.

## Accreditation

EDO Tasmania supports the development of programmes under which companies who can demonstrate compliance with rigorous and transparent criteria achieve certification. For example, the work currently being done by the Salmon Aquaculture Dialogue to develop standards for responsible aquaculture is worthwhile and will be useful to set sustainability benchmarks. However, any certification programme aimed at demonstrating sustainability must:

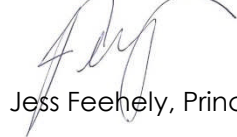
- Be based on clear, defensible indicators;
- Incorporate both inputs and outputs for industry (e.g. energy use, feed source, chemical use, light emissions) and direct and indirect impacts (e.g. loss of opportunity for recreational fisheries, downstream impacts);
- Require implementation of procedures, rather than just having procedures;
- Require regular, independent review of certified companies, and continue to encourage improvement even where indicators are met.

When appropriate certification programmes are established for fisheries and aquaculture, government agencies should give priority to certified companies in terms of funding opportunities or offer other incentives such as research assistance or reduced licence fees.

Thank you for the opportunity to make these comments. If you would like to discuss anything in this submission, please do not hesitate to contact me.

Yours sincerely,

**Environmental Defenders Office**



Jess Feehely, Principal Lawyer

**Enc:** Table of enforcement activities – marine farming breaches, Tasmania.

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<sup>5</sup> *Humane Society International and Minister for the Environment and Heritage [2006] AATA 298*



## TASSAL PTY LTD

LOCATION / LEASE #	DATE	ISSUE/OFFENCES	REQUIREMENTS OR PENALTIES IMPOSED
Billey Blue, No. 194	July 2009	Annual video assessment showed out gassing on disturbance	Sediment recovery required, pens should be left to fallow before being re-stocked.
Brabazon Point, No. 186	July 2009	Annual video assessment showed spontaneous out gassing at one pen bay. Tassal advised Dept. that this pen bay had been re-surveyed and there were no signs of spontaneous out gassing although there was significant <i>Beggiatoa</i> .	Dept. is satisfied that the site can continue to be stocked on the condition that it has a long fallow period and that subsequent footage from the 2010 video survey shows this site has recovered.
Creeses Mistake, No 190	July 2009	Annual video assessment showed out gassing on disturbance	Sediment recovery required, pens should be left to fallow before being re-stocked.
Great Taylors Bay, D'Ent Channel , No. 185	July 2009	Annual video assessment showed out gassing on disturbance	Sediment recovery required, pens should be left to fallow before being re-stocked.
Great Taylors Bay, D'Ent Channel , No. 203	28/06/2006	Marine Farming Equipment outside lease area	
	3/10/2006	Marine Farming Equipment outside lease area – following a complaint from Marine and Safety Tasmania.	
	24/10/2006	Re-inspection as a result of previously observed breaches of s94 MFPA. Marine Farming Equipment outside lease area. Cages had also been found outside lease area in June 2006 and Oct 2006.	\$400 + 4 demerit points
	22/05/2008	Video footage showed spontaneous gas bubbling from two pen bays and gas bubbling on disturbance from one pen bay.	Resurvey required before restocking.
	July 2009	Annual video assessment showed out gassing on disturbance	Sediment recovery required, pens should be left to fallow before being re-stocked.
Killara, No. 189	22/05/2008	Video footage showed spontaneous gas bubbling from 2 pen bays and gas bubbling on disturbance from one pen bay.	Resurvey required prior to restocking.
Liberty Point Central , No. 214	22/05/2008	Video footage showed pen bays with gas bubbling on disturbance	No requirements mentioned
	July 2009	Annual video assessment showed spontaneous out gassing at one pen bay.	Tassal advised the Dept. this pen has been fallowed and will not be restocked until after the next video survey in early 2010 and therefore no requirement for a follow up survey.

## TASSAL PTY LTD

LOCATION / LEASE #	DATE	ISSUE/OFFENCES	REQUIREMENTS OR PENALTIES IMPOSED
Long Bay, No. 55	9/08/2005	Annual video assessment – presence of fine bubbles spontaneously rising from the sediment in fallowed pen. Breach of licence conditions.	Must provide Dept. with video footage of seabed prior to restocking.
Macquarie Harbour West Coast, No. 214	11/05/2005	Having Marine Farming Equipment outside lease area. Lease 214 was noted as having a history of marine farming equipment being found outside the lease area, e.g. May 2004, and again during the follow up inspection in July 2004 (2 out of 10 trip lines remained outside area).	\$400 fine + 4 demerit points
Macquarie Harbour West Coast, No. 219	11/05/2005	Having Marine Farming Equipment outside lease area. In addition, the navigation mark prescribed for the southern most point of the lease area was not in position. However, the Dept. was advised that this has broken off the day before (replacement ordered).	\$400 fine + 4 demerit points
Meads Creak, No. 77	22/05/2008	Video footage showed pen bays with gas bubbling on disturbance	No requirements mentioned
	July 2009	Annual video assessment showed spontaneous out gassing at one pen bay with out gassing on disturbance at two pen bays.	Tassal advised Dept. that the moorings at this site are being relocated and therefore there is no requirement for a follow up survey.
Parsons Cove , No. 193	22/05/2008	Video footage showed spontaneous gas bubbling from one pen bay and gas bubbling on disturbance from one pen bay.	Site requires resurvey before restocked.
	July 2009	Annual video assessment showed out gassing on disturbance	Sediment recovery required, pens should be left to fallow before being re-stocked.
Port Esperance Dover, No. 77	1/06/2004	Cages found outside lease area.	No reference made to requirements
	1/10/2005	Cages found outside lease area	
	10/10/2005	Sea cages outside the western boundary of the lease area.	Doesn't appear that an infringement notice was issued.
	19/09/2006	Cages found outside lease area	Infringement notice issued.
	24/10/2006	Re-inspection as a result of previously observed breaches of s94 MFPA. Marine Farming Equipment outside lease area. Cages had also been found outside lease area in September 2006, October 2003 and June 2004 – all amounted to a breach of s94 MFPA.	\$400 + 4 demerit points
	7/10/2007	Several of the temporary marks did not comply with the IALA requirements as determined by the Marine and Safety Tasmania.	Cautionary infringement notice issued in respect of observed marking inadequacies.
	6/12/2007	Re-inspection subsequent to previously observed inadequacies in the marking of the lease areas. Marine Farming Equipment outside lease area.	\$400.00 fine

## TASSAL PTY LTD

LOCATION / LEASE #	DATE	ISSUE/OFFENCES	REQUIREMENTS OR PENALTIES IMPOSED
		Compliance with marking advice from 7/10/07.	
Redcliffs, No. 201	22/05/2008	Video footage showed spontaneous gas bubbling from two pens.	Site requires resurvey prior to being restocked.
Roberts Point, No 142	July 2009	Annual video assessment showed spontaneous out gassing at one pen.	Tassal advised the Dept. that the moorings at this site are being relocated to another location within the lease area and therefore there is no requirement for a follow up survey.
	22/05/2008	Video footage showed pen bays with gas bubbling on disturbance	No requirements mentioned
South Central Harbour , No. 219	22/05/2008	Video footage showed spontaneous gas bubbling from two pen bays and gas bubbling on disturbance from two pen bays. One compliance spot dive outside the lease area showed signs of organic enrichment that may be attributable to finfish culture. 2006 inspections found cages located outside the lease area in the vicinity of this area.	Resurvey of the impacted pen bays on this lease is required prior to restocking.
Stringers Cove, 209	7/10/2007	One prescribed mark was not deployed at the southern boundary of lease no. 209.	Cautionary infringement notice issued in respect of observed marking inadequacies.
	6/12/2007	Having Marine Farming Equipment outside lease area. Marking advice had not been restored as per MAST requirements 7/10/07.	\$400.00 fine
	22/05/2008	Video footage submitted showed the seabed to be spontaneously gas bubbling from one pen bay and gas bubbling on disturbance from one pen bay. One seabed also showed significant quantities of uneaten feed.	Resurvey required prior to restocking.
Tinderbox, No 90	4/07/2007	Follow up video- survey footage indicated the presence of unacceptable impacts within pen bays with spontaneous outgassing from sediments within two pen bays and gas bubbling on disturbance at two other pen bays.	Pens can only be restocked following the submission of video footage showing sufficient recovery. Dept. will undertake random inspections in the near future.
	6/08/2007	Follow up video footage from January 2007. Survey showed the fallowed pens have recovered sufficiently to allow restocking.	
	July 2009	Annual video assessment showed spontaneous outgassing at 3 pen bays with outgassing on disturbance at 2 pen bays.	Tassal advised the Dept. that the moorings at this site are being relocated to another location within the lease are and therefore there is no requirement for a follow survey.
	9/08/2005	Annual video assessment – high density of <i>Mytilus edulis</i> (alive and dead). Density of these mussels is of concern given that such numbers may affect change in sediment characteristics and attract significant numbers of <i>Asterias amurens</i> . Breach of licence condition 3 (1.4).	Dept. will conduct a site visit

## TASSAL PTY LTD

LOCATION / LEASE #	DATE	ISSUE/OFFENCES	REQUIREMENTS OR PENALTIES IMPOSED
	22/05/2008	Video footage submitted showed the seabed to be spontaneously gas bubbling from one pen bay and gas bubbling on disturbance from two other pen bays.	Resurvey required prior to restocking.
Tinderbox, No. 91	24/10/2006	Letter stating that video footage and survey were inadequate, pursuant to s1, Schedule 3V of marine farming licences, Dept. upgraded the procedural requirements for any video surveys. Survey footage indicated spontaneous out gassing from sediments with 2 pen bays and gas bubbling on disturbance at two other pen bays.	\$400 + 4 demerit points

## HUON AQUACULTURE

LOCATION	DATE	ISSUE/OFFENCE	REQUIREMENTS
Deep Bay, Port Cygnet, Lease No. 200	27/08/2008	Trip lines outside the northern boundary of the lease.	
	10/09/2009	The northern IALA lit special marks were up to 60 meters from their correct position as well as two mooring lines outside the south-west section of the lease area.	Reference was made to this in another letter, so there were no requirements listed.
	7/09/2010	Two unstocked cages were located outside the lease area and the northern IALA lit special marks were located up to 30 meters from their correct position.	Caution issued.
	16/09/2008	Annual video assessment showed spontaneous out gassing, constituting a breach of licence conditions	\$480.00 Extend the fallowing of 3 specific pens for as long as possible.
	17/02/2011	Having Marine Farming Equipment outside lease area. It was noted in the letter that lease no.200 has a history of having equipment outside the lease area.	\$520 fine
	5/02/2009	Two mooring lines and 80 metre polar circle cage were located outside the lease area	Reference was made to this in another letter, so there were no requirements listed.
East of Redcliff's, Lease No. 221	16/09/2008	Annual video assessment identified a number of instances where sediments on various lease areas were heavily impacted with out gassing on disturbance and spontaneous out gassing was evident.	Dept. required data reports in respect to bird netting trials conducted on a number of lease sites.
	29/09/2010	Annual video assessment showed debris occurring at the fishrace, harvest race and water fill station, as well as at 2 pen bays.	The lease area must be kept tidy. Following the 2009 survey HAC made an undertaking to remove the excess debris.
	6/06/2007	Annual video assessment showed outgassing and disturbance of sediments was apparent, this constitutes a breach of licence conditions	HAC is required to keep the bay fallow until such time as there is clear visible evidence of recovery in sediment condition.
	27/08/2009	Annual video assessment showed a significant number of feed pellets at pen bay RB21. This is significant and concerning given the potential for adverse impacts to the benthos associated with this unnecessary organic enrichment.	No requirements listed.
Flathead Bay, Huon River, Lease No. 87	26/08/2005	MAST Mooring by-laws - inadequate marks	\$500.00 penalty
	6/06/2007	Annual video assessment showed outgassing and disturbance of sediments was apparent, this constitutes a breach of licence conditions	HAC is required to keep the bay fallow until such time as there is clear visible evidence of recovery in sediment condition.
	16/09/2008	Annual video assessment identified a number of instances where sediments on various lease areas were heavily impacted with out gassing on disturbance and spontaneous out gassing was evident.	
	8/12/2008	Failing to comply with Marine Farming Development Plan – failure to adequately mark marine farming lease.	\$480.00 penalty

## HUON AQUACULTURE

LOCATION	DATE	ISSUE/OFFENCE	REQUIREMENTS
Flathead Bay, Huon River, Lease No.93	26/08/2005	MAST Mooring by-laws - inadequate marks	\$500.00 penalty
Hideaway Bay, Huon River, Lease No. 93	16/09/2008	Annual video assessment showed high copper levels are an ongoing issue.	The pens will now be subject to non-antifoulant licence conditions when the licence is renewed.
	27/08/2009	Annual video assessment showed excess debris identified	HAC said it would be removed. Lease area must be kept neat and tidy.
	29/09/2010	Annual video assessment showed debris occurring at the fishrace, harvest race and water fill station, as well as at 2 pen bays.	The lease area must be kept tidy. Following the 2009 survey HAC made an undertaking to remove the excess debris.
	24/08/2005	Equipment outside lease area - 2 floats with lines attached were observed outside lease area, MAST Mooring by-laws - inadequate marks, dying birds observed entangled in nets - HAC has made no effort to remove dead or entangled birds.	\$500.00 penalty
Lease No. 141	16/09/2008	Annual video assessment identified a number of instances where sediments on various lease areas were heavily impacted with out-gassing on disturbance and spontaneous out gassing was evident.	
Lease No. 151	6/06/2007	Annual video assessment showed outgassing and disturbance of sediments was apparent, this constitutes a breach of licence conditions	HAC required to keep the bay fallow until there is clear visible evidence of recovery in sediment condition.
	16/09/2008	Annual video assessment showed spontaneous out gassing, constituting a breach of licence conditions.	HAC will be required to keep these bays fallowed until such time as there is clear visible evidence of recovery in sediment condition.
Lease No. 167	16/09/2008	Annual video assessment identified a number of instances where sediments on various lease areas were heavily impacted without gassing on disturbance and spontaneous out gassing was evident.	
Pillings Bay, Lease No. 24	6/06/2007	Annual video assessment showed outgassing and disturbance of sediments was apparent, this constitutes a breach of licence conditions	HAC is required to keep the bay fallow until such time as there is clear visible evidence of recovery in sediment condition.

## HUON AQUACULTURE

LOCATION	DATE	ISSUE/OFFENCE	REQUIREMENTS
Pillings Bay, Lease No. 176	16/09/2008	Annual video assessment showed spontaneous out gassing, constituting a breach of licence conditions.	HAC will be required to keep these bays fallowed until such time as there is clear visible evidence of recovery in sediment condition.
	27/08/2009	Annual video assessment showed thin to feint patches of <i>Beggiatoa</i> at 4 pen bays, small patches of grey sediment and black-grey organic matter. Evidence of an unacceptable impact at or extending beyond 35 metres from the boundary of the lease area. Spontaneous out gassing was evident at one pen bay.	Approval must be granted before re-stocking. HAC to undertake follow up survey work as a priority. Following the submission and assessment of the follow up survey, the Dept. will determine if any additional benthic assessment needed.
	29/09/2010	Annual video assessment showed thick mats of <i>Beggiatoa</i> and evidence of spontaneous outgassing from the sediment observed during the 2009 survey.	The pen bay must be left to fallow for the remainder of the year.

## SEVRAP FISHERIES

LOCATION	DATE	ISSUE/OFFENCE	REQUIREMENTS
Table Head, Lease No. 215.	2/6/2007	Video footage showed organic enrichment in the form of dark sediments, <i>Dorvellid sp</i> and <i>Beggiatoa sp</i> . Pens should be left to fallow for sufficiently long enough to allow sediment recovery at the pens site.	Fallow periods must be sufficiently long to ensure sediment recovery.
Liberty Point, Lease No. 217.	2/6/2007	Video footage showed the level of organic enrichment has resulted in significant impacts and breaches of licence conditions	Immediate fallowing of these pens was required to allow for recovery. If pens need to be occupied a follow up survey of the pen bays is required prior to restocking.



# It smells Fishy!

## Tasmania's Marine Farming Regulatory Framework, and how to improve it

*An assessment prepared by Environmental Defenders Office (Tas) Inc\**

The marine farming industry in Tasmania was recently trumpeted as 'the number one economic development success story over the past 20 years' with the industry projected in the 2011-2012 financial year to achieve a gross value of \$450 million. The extraordinary strength of the industry is even more remarkable when you consider that it is relatively new - pacific oyster farming in the State is less than fifty years old and commercial salmon farming commenced only 20 years ago.<sup>1</sup> Whilst the economic attraction of the industry is clear, particularly in remote, regional and rural communities, increasing concern is being raised about the lack of a robust regulatory framework.

This article outlines some of the criticisms of the current Tasmanian system, reviews the regulatory frameworks in other marine farming countries, and recommends changes to move Tasmania towards a best practice model.

## Tasmania

### *Marine Farming Planning Act 1995*

The *Marine Farming Planning Act 1995* (Tas) (the Act) regulates the marine farming industry in Tasmania, including both the planning process and the allocation of marine farming leases.<sup>2</sup> The Act sets out a number of purposes and objectives which it seeks to achieve:<sup>3</sup>

*(1) The purpose of this Act is to achieve well-planned sustainable development of marine farming activities having regard to the need to –*

*(a) integrate marine farming activities with other marine uses; and*

*(b) minimise any adverse impact of marine farming activities; and*

*(c) set aside areas for activities other than for marine farming activities; and*

*(d) take account of land uses; and*

*(e) take account of the community's right to have an interest in those activities.*

*(2) A person must perform any function or exercise any power under this Act in a manner which furthers the objectives of resource management.*

In seeking to assure that these important aims and objectives are achieved, the Act establishes an 8 member Marine Farming Planning Review Panel (the Panel) comprised of experts from a variety of backgrounds including local government, marine farming, recreational boating, planning,

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\* Prepared July 2012. EDO Tasmania wishes to thank Ben Bartl for all his work on this paper. EDO Tasmania also blames him entirely for the title!

<sup>1</sup> Bryan Green, Minister for Primary Industries and Water, Hansard, Thursday 17 November 2011. As found at <http://www.parliament.tas.gov.au/HansardHouse/isysquery/b5fe3677-a26b-464e-9ac7-11ece8e651ab/1/doc> (Accessed 4/3/2012).

<sup>2</sup> Long title of the *Marine Farming Planning Act 1995* (Tas).

<sup>3</sup> Section 4 of the *Marine Farming Planning Act 1995* (Tas).

marine resource management and the environment.<sup>4</sup> The Panel is responsible for assessing marine farming development plans, including amendments to allow expansion, relocation or other changes to marine farming activities. In making its assessment, the Panel is required to take into account public submissions, the recommendations of the Marine Farming Branch and the sustainable development objectives of the legislation.<sup>5</sup>

The Act, and the government agency responsible for its implementation, claims that the legislation establishes a framework under which marine farming is integrated with other marine uses, adverse impacts are minimised and community concerns are adequately addressed. However a number of criticisms are apparent.

### **Limited Integration of Water and Land-Based Marine Farming Activities**

Most land use and development in Tasmania is subject to the *Land Use Planning and Approvals Act 1993 (LUPAA)*<sup>6</sup>. However, planning and development in relation to marine farming in State waters is explicitly excluded from the operation of LUPAA.<sup>7</sup> Whilst local councils have jurisdiction over some land based activities associated with marine farming,<sup>8</sup> they possess no jurisdiction over the marine farming planning process or decisions in relation to activities below high water mark.<sup>9</sup>

Though nothing in a planning scheme can regulate marine farming activities (other than land-based components), the Minister can require a planning scheme to be amended to ensure that land based activities do not affect marine farming.<sup>10</sup> This provides an unfair priority for marine farming activities. The impacts of marine farming are not restricted to the water: marine farming introduces noise and odour issues, impacts on visual amenity, requires infrastructure and access to transport routes and processing facilities, and can interfere with tourism and recreation activities. The inability of councils to plan for, or be involved in the assessment of, marine farming continues to hinder effective strategic planning at a municipal or regional level.

Experience around the globe (see, for example, the discussion regarding New Zealand below) has demonstrated that sectoral approaches are generally insufficient to deal with real world complex interrelationships and diverse stakeholder priorities. Sustainable development requires ecosystem based strategic planning.

The creation of a separate resource management system for the marine farming sector, and the restrictiveness of this system in terms of third party / community input, is contrary to the goal of sustainable development espoused in Tasmanian legislation.

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<sup>4</sup> Section 8 of the *Marine Farming Planning Act 1995* (Tas).

<sup>5</sup> Section 9(1) of the *Marine Farming Planning Act 1995* (Tas).

<sup>6</sup> Other than forestry and mining

<sup>7</sup> Section 20(7)(d) of the *Land Use Planning and Approvals Act 1993* (Tas).

<sup>8</sup> See for example section 19(3)(c) of the *Marine Farming Planning Act 1995* (Tas).

<sup>9</sup> Below the high water mark: see section 5 of Tasmania's *Living Marine Resources Management Act 1995* (Tas).

<sup>10</sup> Section 20(3) of the *Marine Farming Planning Act 1995* (Tas) providing that the relevant Minister may 'require the Tasmanian Planning Commission to prepare an amendment to a planning scheme under that Act in respect of land which adjoins State waters to reduce the negative impact or likely negative impact of activities or future development on the land upon marine farming or other activities in State waters'.

## Limited rights of appeal

The objectives of Tasmania's Resource Management and Planning System (**RMPS**), which both LUPAA and the *Marine Farming Planning Act 1995* are subject to, include encouraging public participation in resource management decisions.

Presently, draft marine farming development plans and amendments to plans are exhibited and any member of the public may make representations. This level of participation is similar to the situation with draft planning schemes and discretionary use and development.<sup>11</sup> However, once a marine farming development plan has been certified, there is no further public involvement in the lease allocation, licensing or development process.

In contrast to applications assessed under LUPAA, where any person who made a representation in relation to a proposed development has a right to appeal to the Resource Management and Planning Appeal Tribunal (**RMPAT**), appeals under the Act are limited to appeals against a *refusal* to consider an amendment or to grant a lease, or appeals on the grounds that the proposal will adversely affect other marine farming operations.<sup>12</sup> Expressed in another way, there are no general rights to appeal against a decision to approve an amendment on grounds relating to the environment, sustainability or social issues.

## Science-based decision-making

Recent changes to the Act mean that the Panel is now only able to make *recommendations* to the Minister, rather than having power to refuse applications for amendments allowing new/expanded lease areas. The Minister is not required to follow the Panel's recommendation (although they are required to table in Parliament their reasons for any decision contrary to a recommendation<sup>13</sup>). This change was made after the Panel, for the first time ever, refused an application for a lease expansion at Soldiers Point in the D'Entrecasteaux Channel, noting that the projected economic benefits of the proposed expansion did not outweigh the adverse impacts of the proposal on a fragile reef system.

The power for the Minister to override the independent, expert Panel's advice appears to make the assessment process more political than scientific. The Panel has an explicit mandate to consider whether a proposed aquaculture development can satisfy sustainability objectives.

There may be good reasons why the Minister, having responsibility for a range of portfolios, would not accept a recommendation from an expert Panel to approve a proposed aquaculture development, even though the proposal, when considered in isolation, is considered to be sustainable. For example, the Minister may consider that the proposal will have unacceptable visual or amenity impacts on nearby residents, may interfere with views from key tourist spots or may place an undue burden on local government infrastructure.

In contrast, there can be no good reason to allow proposed marine farming activities where the independent, scientific expert Panel has determined that the amendments are not sustainable and recommended refusal. This is particularly true where no rights of appeal exist to challenge the decision.

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<sup>11</sup> Sections 25-27 of the *Marine Farming Planning Act 1995* (Tas).

<sup>12</sup> Section 75(1) of the *Marine Farming Planning Act 1995* (Tas).

<sup>13</sup> See sections 9(1)(c) and 42A of the *Marine Farming Planning Act 1995* (Tas).

## Codes of practice

Many industries and activities in Tasmania, such as forestry, mining and quarrying and the dairy industry, are subject to a code of practice providing detailed guidance on how activities should be conducted. Some codes, such as the Forest Practices Code, have statutory force while others are not independently enforceable but may be included as permit conditions.

In contrast, marine farming in Tasmania is not currently subject to any industry code, whether voluntary or enforceable. A draft Code of Practice was developed by industry in the early 2000s, but was never progressed and is no longer applied.

## Monitoring and enforcement

Reliance on adaptive management (that is, changing management systems in response to new information or observed problems) will not be effective without appropriate monitoring and enforcement activities to facilitate adaptation. Encouraging improved performance will only be successful if there is a credible threat that stronger action will be taken if no improvement is demonstrated. For example, the Marine Farming Development Plan for Tasmania's D'Entrecasteaux Channel imposes a plan-wide nitrogen cap to control nutrient impacts. However, there is currently limited monitoring to determine whether the cumulative contribution of each lease areas to the nitrogen load exceeds the cap, and no ongoing assessment to determine the impacts of emissions to establish whether the existing cap is set at a sustainable level.

There is currently limited independent monitoring of marine farming operations – the Marine Farming Branch relies largely on reports and video surveillance submitted by the operators themselves, and there are few coordinated/holistic monitoring efforts.

There are a number of enforcement options under Tasmanian legislation, including

- Fines up to \$6,500 for marine farming equipment being located outside a lease area<sup>14</sup>;
- Fines up to \$65,000, or up to 2 years in prison, for contravening marine farming licence conditions<sup>15</sup>;
- Issuing infringement notices (fines up to \$650) for minor breaches;
- Allocation of demerit points for offences – accumulation of 200 demerit points over 5 years may lead to temporary disqualification from obtaining a marine farming licence;
- Cancellation or suspension of licence for 5 years if the licence holder contravenes the licence conditions<sup>16</sup>.

Despite this range of options, a review of reported enforcement activities from 2006-2012 indicates that many observed breaches are unpunished. Fines are rarely imposed and even more rarely exceed \$500. Without more consistent and effective enforcement activity, there is little incentive for marine farming operations to achieve, much less exceed, their obligations.

Both the *Land Use Planning and Approvals Act 1993* and *Environmental Management and Pollution Control Act 1994* provide opportunities for any person with a 'proper interest' to take action in

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<sup>14</sup> s.94 of the *Marine Farming Planning Act 1995*

<sup>15</sup> s.86A, *Living Marine Resource Management Act 1995*

<sup>16</sup> s.90, *Living Marine Resource Management Act 1995*

RMPAT where the provisions of the Act are being breached (e.g. a permit is not being complied with or unlawful environmental harm is being caused). The opportunity for a third party to take action where the regulator has failed to do so is significant to public confidence and acts as a further deterrent against contraventions by proponents. The absence of any civil enforcement opportunity in relation to marine farming activities further weakens the enforcement regime.

## Scotland

Scotland is the largest producer of farmed Atlantic Salmon in the European Union with an estimated farm gate value in 2008 of £367 million.<sup>17</sup> Whilst marine farming is dominated by farmed salmon, the Scottish industry also comprises rainbow trout, brown trout, sea trout, halibut, Arctic charr, mussels and Pacific oysters.<sup>18</sup>

### Integrated planning

In contrast to the situation in Tasmania, marine farming is not exempt from the principal piece of planning legislation in Scotland, the *Town and Country Planning (Scotland) Act 1997 (the Scottish Act)*.<sup>19</sup> Instead, the *Scottish Planning Policy*<sup>20</sup> sets out the Government's policy regarding marine farming, indicating how the planning system can seek to accommodate marine farming developments whilst safeguarding the environment and other uses. For example:

*105. Development plans should identify areas which are potentially suitable for new or modified fish farm development and sensitive areas which are unlikely to be appropriate for such development. In potential development areas fish farm development may be appropriate, subject to locational and environmental considerations. Sensitive areas are unlikely to be suitable for fish farm development unless adverse impacts can be adequately mitigated. When designating potential development areas and sensitive areas, planning authorities should take into account carrying capacity, landscape, natural heritage and historic environment interests, potential conflict with other users and other regulatory controlled areas...<sup>21</sup>*

*106. Fish farms are likely to require land based facilities and where possible these facilities should be considered as part of or simultaneously with the application for the fish farm...*

*109. There is potential for conflict between fish farming and local fishing interests, including commercial inshore fishing and recreational fishing. The effects of fish farm development on traditional fishing grounds, salmon netting stations and angling interests should be considered....*

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<sup>17</sup> *Delivering Planning Reform for Aquaculture*. As found at <http://www.scotland.gov.uk/Resource/Doc/304025/0095384.pdf> (Accessed 4/3/2012).

<sup>18</sup> Marine Scotland, *A Fresh Start – The Renewed Strategic Framework for Scottish Aquaculture* at 6. As found at <http://www.scotland.gov.uk/Publications/2009/05/14160104/0> (Accessed 4/3/2012).

<sup>19</sup> The *Town and Country Planning (Marine Fish Farming) (Scotland) Order 2007* which came into force on 1 April 2007 extended the planning system to include marine fish farming. Section 26 of the Act now specifically includes marine farming within the definition of development,

<sup>20</sup> 'Scottish Planning Policy' (February 2010) As found at <http://www.scotland.gov.uk/Resource/Doc/300760/0093908.pdf> (Accessed 4/3/2012).

<sup>21</sup> *Locational Guidelines for the Authorisation of Marine Fish Farms in Scottish Waters* was published by Marine Scotland in 2009. Each planning authority can also publish supplementary guidance for fish farming in specific areas, including advice on how to design fish farms and associated development to minimise landscape and visual impact

## Code of Practice

In addition to its integrated planning regime, Scotland has implemented a Code of Practice for marine farming, dealing with a range of issues such as cage and equipment design, security, management and operational practices. The *Code of Good Practice for Scottish Finfish Aquaculture (the Code or CoGP)*<sup>22</sup> has been operational since 2006 and was recently reviewed and updated, taking account of the best available evidence and of changes in legislation and policy.

The code is currently voluntary, however companies who choose to sign up are independently audited against the Code provisions. Companies are increasingly seeking to obtain market advantage by demonstrating compliance with the Code. The *Scottish Planning Policy* also points out that compliance with the Code will provide support for planning applications.<sup>23</sup>

The Code does not replace legislation obligations for marine farming activities. Instead, it seeks to “achieve balanced and proportionate regulation of the industry’s activities, without overwhelming preoccupation with regulatory detail or bureaucracy.”<sup>24</sup> The Code also aims to continuously improve the standards of all operators and, through wider adoption and independent auditing, to provide assurances to all stakeholders, consumers and the general public that Scottish finfish aquaculture is a responsible sector producing sustainable products.

## Science-based decision-making

Before planning permission can be given, section 40 of the Scottish Act makes clear that that ‘the likely environmental effects of the proposed development’ must be assessed, including the effect on the ‘water environment’.<sup>25</sup>

The *Scottish Planning Policy* provides that a planning authority determining a marine farming application should:

107....take into account the direct and cumulative effects of the proposed development on the environment, including carrying capacity, visual impact and the effects on the landscape, marine historic environment and the sea or loch bed. The needs of local communities and other interests should also be taken into account alongside the economic benefits of the sustainable development of the fish farming industry and the operational needs of fish farms.... Where adverse cumulative impacts are significant and cannot be mitigated, planning permission should not be granted...

Once environmental and social effects have been assessed, the planning authority is responsible for determining marine farming applications (and related development) and has the same power to grant or refuse the application as for any other developments.

## Monitoring and enforcement

Scottish aquaculture operations, like all other industries that discharge into the marine environment, are regulated under the *Water Environment (Controlled Activities) (Scotland) Regulations 2011*. These regulations allow for independent monitoring of marine farms and provides for enforcement where breaches are identified (see Part V of the *Water Environment (Controlled Activities) (Scotland) Regulations 2011*). Monitoring and enforcement of the Regulations is carried out in Scotland by the Scottish Environment Protect Agency.

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<sup>22</sup> As found at <http://www.thecodeofgoodpractice.co.uk/publish> (Accessed 4/3/2012).

<sup>23</sup> Scottish Planning Policy, clause 108

<sup>24</sup> As found at <http://www.thecodeofgoodpractice.co.uk/publish> (Accessed 4/3/2012).

<sup>25</sup> Section 3(2) of the *Water Environment and Water Services (Scotland) Act 2003*.

## New Zealand

The New Zealand marine farming industry established itself in the latter-half of the twentieth century and is today dominated by shellfish -namely mussels and oysters- as well as salmon. In 2009, according to information provided by *Aquaculture New Zealand*, marine farming was comprised primarily of mussels (72% of total value) followed by salmon (22%) and oysters (6%).<sup>26</sup>

### Integrated Planning and science-based decision making

New Zealand's marine farming industry is primarily managed through the *Resource Management Act 1991* (the **New Zealand Act**), the same Act under which any other land use or coastal activity is assessed and managed. Similar to Tasmania's RMPS, the goal of the New Zealand Act is 'promoting the sustainable management of natural and physical resources'.<sup>27</sup>

Prior to the introduction of the *Resource Management Act 1991*, marine farming in NZ was subject to sector-specific legislation<sup>28</sup> which identified specified aquaculture zones where marine farming was permitted. With the introduction of the *Resource Management Act 1991*, marine farming became subject to an "effects based management" regime which required "rigorous analysis the effects of the proposed activity can be adequately avoided, remedied or mitigated and are otherwise consistent with sustainable management".<sup>29</sup> Proposals were assessed individually for each location, rather than having specified areas where aquaculture was presumed to be acceptable. For each proposed location, it is now up to the proponent to demonstrate that marine farming will satisfy the requirements of the zone that have been developed having regard to scientifically determined thresholds.<sup>30</sup>

The Ministry of Conservation has produced a *New Zealand Coastal Policy Statement*, and all regional councils have adopted regional coastal plans that are consistent with this Statement. The regional coastal plans may identify areas where marine farming cannot occur as well as specifying limits on the character, intensity, or scale of acceptable activities.<sup>31</sup>

The New Zealand Act also explicitly requires proponents for any proposal with the potential to cause significant adverse impacts to describe potential alternative locations or methods for undertaking marine farming activities, and a justification for why the alternatives have not been adopted.<sup>32</sup>

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<sup>26</sup> Aquaculture New Zealand, 'New Zealand Aquaculture Exports' as found at <http://aquaculture.org.nz/industry/overview/> (Accessed 8 May 2012).

<sup>27</sup> Section 5(2) of the *Resource Management Act 1991*.

<sup>28</sup> *Marine Farming Act 1971*

<sup>29</sup> Bret Birdsong, Adjudicating Sustainability: New Zealand's Environment Court and the Resource Management Act, October 1998. As found at <http://www.fulbright.org.nz/news/1998-birdsong/> (Accessed 7 May 2012).

<sup>30</sup> Hamish Rennie. 'New Zealand mariculture – Unfairly challenged?' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 513.

<sup>31</sup> Regional coastal plans include mean high water at spring tides to the 12-nautical mile limit.

<sup>32</sup> See s88(4) and Schedule 4 of the *Resource Management Act 1991*.

## Public Participation

The New Zealand Act also promotes broad public participation in environmental decision-making, including marine farming. As an author noted, encouraging public participation through the *Resource Management Act 1991* was considered an essential principle of sustainability for several reasons:<sup>33</sup>

*First, determining what is sustainable for a community will depend on accurately ascertaining the community's preferences, which is best done by incorporating them into the decision making process. Second, it is generally accepted that better environmental decisions will result from a greater flow of information, including information that is held or developed by the members of local communities. Finally, open public participation is encouraged on fairness grounds; if decisions are to be made that will broadly affect the community, then it is fair to provide members of the community the opportunity to participate.*

There is a presumption in favor of public notification of applications for resource consents under the *Resource Management Act 1991*,<sup>34</sup> allowing interested parties to make submissions and thereby secure a right of appeal to the Environment Court.<sup>35</sup>

Like Tasmania's RMPAT, the Environment Court is a specialist body conducting *de novo* ('new trial') merits review of resource management decisions. The court is able to hear a large number of matters concerned with planning applications including marine farming, thereby providing both accountability and transparency of decision-making.

## Monitoring and enforcement

Under the New Zealand Act, the Minister of Conservation is responsible for preparing coastal policy statements, approving regional coastal plans and permits for restricted coastal activities and monitoring activities.<sup>36</sup>

Interestingly, the costs of monitoring activities carried out by the Ministry of Conservation or the local planning authority are paid for by the proponent, including marine farm operators.<sup>37</sup>

In New Zealand 'any person' may apply to the Environment Court for an enforcement order where they allege that laws or permit conditions are not being complied with.<sup>38</sup> In addition, any person may request the Court to initiate proceedings regarding a criminal offence committed under the Act.<sup>39</sup> These broad rights to bring third party action ensure that 'any person' can commence proceedings where a marine farming operation contravenes the provisions of the New Zealand Act.

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<sup>33</sup> Bret Birdsong, *Adjudicating Sustainability: New Zealand's Environment Court and the Resource Management Act*, October 1998. As found at <http://www.fulbright.org.nz/news/1998-birdsong/> (Accessed 7 May 2012).

<sup>34</sup> Section 87 of the *Resource Management Act 1991* provides a 'resource consent' definition.

<sup>35</sup> Section 120 (resource contents; First Schedule, section 14(1) (policy statements and plans) of the *Resource Management Act 1991*.

<sup>36</sup> Section 28 of the *Resource Management Act 1991*.

<sup>37</sup> Section 36(1)(c) of the *Resource Management Act 1991*.

<sup>38</sup> Section 316(5) of the *Resource Management Act 1991*.

<sup>39</sup> Section 338(4) of the *Resource Management Act 1991*.



## Canada

Canada boasts the world's longest coastline, largest freshwater system and largest tidal range. Given its environmental advantages, it is unsurprising that both the *Canadian Aquaculture Industry Alliance* and *Statistics Canada* highlight the significant financial contribution the marine farming industry provides, particularly the production of Atlantic salmon in British Columbia. Currently, British Columbia ranks as the fourth largest producer of farmed salmon in the world behind Chile, Norway and Scotland.<sup>40</sup> In 1986, Canadian aquaculture production amounted to only 10,488 tonnes, valued at \$35 million; by 2010, production had grown to 160,924 tonnes with a value of over \$919 million.<sup>41</sup>

### Integrated planning

Regulatory responsibility for marine farming in Canada is split between the federal and provincial governments.<sup>42</sup>

The *Oceans Act* is the most important federal statute for the marine farming industry, providing for the development and implementation of plans for the integrated management of all activities affecting Canadian estuaries, coastal waters and marine waters. The plans are developed by the Minister in collaboration with other Ministers and agencies, local governments, indigenous organisations, coastal communities and "other persons".<sup>43</sup>

As was noted by one commentator, Canada's use of 'integrated management' is intended 'to bring together interested parties, stakeholders and regulators to reach general agreement on the best mix of conservation, sustainable use and economic development of coastal and marine areas for the benefit of all Canadians'.<sup>44</sup>

### Science- based decision making

Marine farming operations involving the construction of facilities are treated as 'projects' to be assessed under the *Canadian Environmental Assessment Act (CEAA)*<sup>45</sup>. Projects involving work that will interfere with navigable waters<sup>46</sup>, cause harmful alteration, disruption or destruction of

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<sup>40</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 53.

<sup>41</sup> 'Aquaculture Statistics', as found on the Statistics Canada website at [www.statcan.gc.ca](http://www.statcan.gc.ca) (Accessed 12 May 2012).

<sup>42</sup> Sections 91(12), (13) and (16) of the *Constitution Act, 1867* (UK), 30 and 31 Vict., c. 3, reprinted in R.S.C. 1985, App. II, No. 5.

<sup>43</sup> *Oceans Act*, S.C. 1996, c. 31.

<sup>44</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 52.

<sup>45</sup> There are 4 'triggers' that will initiate the CEAA assessment process: (1) the project proposal trigger; (2) the financial trigger; (3) the land interest trigger; and (4) the law list trigger: subsections 5(1)(a)-(d) of the *Canadian Environmental Assessment Act*, S.C. 1992 c. 37. See also Fisheries and Oceans Canada, Interim Guide to Information Requirements for Environmental Assessment of Marine Finfish Aquaculture Projects at 1.5 As found at <http://www.dfo-mpo.gc.ca/aquaculture/ref/AAPceaafin-eng.htm> (Accessed 12 May 2012).

<sup>46</sup> Section 5(1) of the *Navigable Waters Protection Act*. S.C. 1985, c. N-22.

fish habitat<sup>47</sup> or may cause 'significant adverse environmental effects' in another province (transboundary effects)<sup>48</sup> will also require assessment under the CEAA.

Once it is determined that the CEAA process applies to a given marine farming project, the process outlined in the *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements* is then followed.<sup>49</sup> There are 4 types of environmental assessment that may be undertaken:

- Screening;
- Comprehensive study;
- Mediation; or
- Panel review.<sup>50</sup>

The level of assessment performed with respect to marine farming projects has consistently been screening.<sup>51</sup> Screenings are self-directed processes in which the responsible agency has discretion to decide how the assessment is to be conducted, including the extent to which public participation, if any, will be required.<sup>52</sup>

Generally, the proponent's environmental impact statement will serve as the screening document. Where the responsible agency believes that the information provided by a proponent is not adequate to enable them to assess the proposal, they have powers to ensure that necessary further studies are undertaken.<sup>53</sup> In practice, screenings for marine farming have almost always required significantly more detail beyond the environmental impact statement before a decision is made.

In general, marine farming is not subject to additional assessment requirements at a provincial level. For example, in British Columbia, marine farming development applications are not required to obtain a project approval certificate under the *BC Environment Assessment Act* and are therefore not subject to any assessment under that Act.<sup>54</sup>

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<sup>47</sup> Section 35(2) of the *Fisheries Act* S.C. 1985, c. F-14.

<sup>48</sup> Section 48(1) of the *Canadian Environmental Assessment Act* providing that where there is no significant trigger, the minister has the discretionary power to refer the project to a mediator or review panel where the project may cause significant adverse environmental effects in another province or outside Canada, or on aboriginal lands.

<sup>49</sup> S.O.R./97-181. As found at <http://laws-lois.justice.gc.ca/eng/regulations/SOR-97-181/index.html> (Accessed 12 May 2012).

<sup>50</sup> See Fisheries and Oceans Canada, Interim Guide to Information Requirements for Environmental Assessment of Marine Finfish Aquaculture Projects at 1.5 As found at <http://www.dfo-mpo.gc.ca/aquaculture/ref/AAPceaafin-eng.htm> (Accessed 12 May 2012).

<sup>51</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 68.

<sup>52</sup> Section 18(3) of the *Canadian Environmental Assessment Act*, S.C. 1992 c. 37.

<sup>53</sup> Section 18(2) of the *Canadian Environmental Assessment Act*, S.C. 1992 c. 37.

<sup>54</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 70.

However, marine farming operations may be subject to assessment under the *Species at Risk Act*<sup>55</sup> if the project is likely to affect a listed wildlife species or its critical habitat.<sup>56</sup> The proponent is required to identify any adverse effects and measures that will be taken to avoid, minimise and monitor impacts.

While the preamble to the *Oceans Act* and the CEAA both explicitly refer to a precautionary approach to the conservation, management and exploitation of marine resources, the precautionary principle has not yet been incorporated into any provincial marine farming legislation.<sup>57</sup>

## Public Participation

At a federal level, public input is always sought where comprehensive studies, mediation or panel enquiries are required for a marine farming proposal. For comprehensive studies, members of the public have the right to make written comments on the study report;<sup>58</sup> for review panels, public hearings are required.<sup>59</sup> However, public participation is limited where the proposal is assessed by way of screening, the most common assessment technique for marine farming proposals.

There are also no rights of appeal in respect of decisions made under the screening assessment process. VanderZwaag has argued that assessment rigour should be improved by making public participation mandatory (rather than discretionary), requiring written governmental responses to public comments and providing a right of appeal 'to ensure decision-makers have considered all critical questions, including cumulative effects and potential impacts on endangered or threatened species'.<sup>60</sup>

A number of opportunities for public participation in marine farming decisions exist in British Columbia. In particular:

- applications for all new marine farming lease will be required to undertake public consultation.<sup>61</sup> The *Finfish Aquaculture Licensing Policies and Procedures for Applications* states that 'reasonable efforts will be made to notify affected parties and provide them with an opportunity to comment on the application'.<sup>62</sup>

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<sup>55</sup> S.C. 2002, c. 29.

<sup>56</sup> Atlantic salmon for example is listed in schedule 1 of the *Species at Risk Act* as endangered in the Inner Bay of Fundy.

<sup>57</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 83.

<sup>58</sup> Section 21.1 of the *Canadian Environmental Assessment Act*, S.C. 1992 c. 37.

<sup>59</sup> Section 34(b) of the *Canadian Environmental Assessment Act*, S.C. 1992 c. 37.

<sup>60</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 82.

<sup>61</sup> *Aquaculture Land Use Policy* at paragraph 8.1.7.

<sup>62</sup> The section also provides that the Minister of Agriculture and Lands may require the applicant to provide public notice of the proposed application in a manner that is acceptable. As found at [www.agf.gov.bc.ca/fisheries/aqua\\_report/2004-5/Appendix2.pdf](http://www.agf.gov.bc.ca/fisheries/aqua_report/2004-5/Appendix2.pdf) (Accessed 12 May 2012).

- Under section 63 of the *Land Act* (which extends to marine areas), any individual may make a formal objection on a land tenure application (such as an application for a lease over marine farm). If an objection is filed, the minister has the absolute discretion to appoint an individual to hold a hearing and make recommendations regarding the issue(s) raised. The Minister making a final order will consider this recommendation.
- Under the *Farm Practices Protection (Right to Farm) Act*<sup>63</sup> any person who is 'aggrieved by any odor, noise, dust or other disturbance arising from a farm operation' is entitled to make a complaint to the Farm Practices Board. If the chair of the Board is satisfied that a settlement of the complaint is unlikely, a panel of the board will be established to hear the complaint.<sup>64</sup>

### Monitoring and enforcement

Pursuant to section 38(1) of the *Canadian Environmental Assessment Act*, all forms of environmental assessment **may** also be subject to monitoring and a follow-up program where appropriate. It has been pointed out by some commentators that this monitoring and mitigation discretion is a weakness of the Act and could be strengthened through an enforceable permit condition requiring monitoring.<sup>65</sup>

## Options for Improving Tasmania's System

Examining the regulatory regimes for marine farming in other jurisdictions highlights some of the improvements that could be made to Tasmania's system.

Most significantly, the experience in Scotland and New Zealand confirm the strategic and ecosystem management benefits of developing an integrated planning system in which marine farming is treated no differently from other uses and developments. In Tasmania, this could be achieved by:

- Making the Tasmanian Planning Commission responsible for reviewing marine farming development plans, and incorporating these as amendments to existing planning schemes. Though there would be no further right of appeal for any party (including the marine farm operator) against a decision of the Commission, the Commission is generally considered to be a more independent, open and comprehensive assessment panel than the Marine Farming Review Panel and is explicitly required to further the objectives of the RMPS.
- The Tasmanian Planning Commission could also develop a statewide planning directive on marine farming to ensure consistency between planning schemes. Where necessary, regional plans could also be developed, similar to the regional coastal plans adopted in New Zealand and the regional land use strategies already in place in Tasmania.

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<sup>63</sup> R.S.B.C. 1996, c. 131.

<sup>64</sup> Section 5 of the *Farm Practices Protection (Right to Farm) Act* R.S.B.C. 1996, c. 131.

<sup>65</sup> David VanderZwaag, 'Canadian aquaculture and the principles of sustainable development – Gauging the law and policy tides and charting a course' in *Aquaculture Law and Policy – Towards principled access and operations*, edited by David VanderZwaag and Gloria Chao (Routledge: New York 2006) at 83.

- Applications for any marine farming development to be made to the local planning authority in the first instance, and can be referred to the Marine Farming Planning Review Panel, or the Marine Farming Branch for comment where appropriate.<sup>66</sup> The Panel could then make recommendations to the council regarding the application, and require particular conditions to be imposed if the application is approved, but the council would retain ultimate power to approve or refuse the application.

A Tasmanian planning system that includes marine farming will better reconcile concerns for the environment and other interests affected by development by engaging with relevant stakeholders and protecting environmental interests.

Science-based decision making could be immediately improved by repealing the recent amendments to the *Marine Farming Planning Act 1995* giving the Minister discretion to ignore the recommendations of the Panel. Any statewide planning directive should require all applications for marine farming development to include, at a minimum, information regarding cumulative impacts to the water environment, any threatened species or ecological communities likely to be affected, details of nutrient release from the proposal, details of anticipated antibiotic use, measures to contain impacts within the lease area, monitoring and adaptive management provisions, and any alternative locations for the proposed marine farm.

The introduction of merits review through appeals to the RMPAT from any decision to amend a marine farming development plan or lease expansion will also allow the scientific basis for decisions to be challenged, leading to more rigorous and objective decisions. As in Canada, all information regarding completed environmental assessments should also be made publicly available to facilitate ongoing monitoring and review of performance.

Ideally, Tasmania would follow the approach adopted in Scotland and adopt a detailed Code of Practice to provide guidance on how individual marine farming operations can achieve sustainability. Compliance with the Code should be mandatory, as it is for the Forest Practices Code.

Finally, monitoring and enforcement should be improved by the introduction of a clear Departmental Enforcement Policy (similar to the one currently in place for the *Environmental Management and Pollution Control Act 1994*) to guide enforcement activity, including thresholds for action, innovative enforcement techniques (such as remediation orders or 'name and shame' provisions) and escalating penalty scales. Monitoring activities should be conducted by an independent agency such as Scotland's EPA (rather than the Marine Farming Branch, which has an interest in supporting the aquaculture industry) and all costs should be recovered from proponents through higher licensing fees.

The introduction of wide civil enforcement powers such as those in place in New Zealand would also significantly improve enforcement action by allowing concerned third parties to step in where the regulator has failed to act.

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<sup>66</sup> In the same way that all development applications that affect sewerage must be referred to a Regional Water Authority and all development applications which involve Level 2 activities must be referred to the EPA.