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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

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 internationally¹. 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.

¹ Conference papers for the *Managing Marine Farming* forum are available at 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.²

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;

² 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.³

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). The

³ 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.⁴ 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

⁴ 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/ ('**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 oppose 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 2006⁵, 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.

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

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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.

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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

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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

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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.