

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.¹ 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.² The Act sets out a number of purposes and objectives which it seeks to achieve:³

(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,

* 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!

¹ 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).

² Long title of the *Marine Farming Planning Act 1995* (Tas).

³ Section 4 of the *Marine Farming Planning Act 1995* (Tas).

marine resource management and the environment.⁴ 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.⁵

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)*⁶. However, planning and development in relation to marine farming in State waters is explicitly excluded from the operation of LUPAA.⁷ Whilst local councils have jurisdiction over some land based activities associated with marine farming,⁸ they possess no jurisdiction over the marine farming planning process or decisions in relation to activities below high water mark.⁹

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.¹⁰ 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.

⁴ Section 8 of the *Marine Farming Planning Act 1995* (Tas).

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

⁶ Other than forestry and mining

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

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

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

¹⁰ 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.¹¹ 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.¹² 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 recommendation¹³). 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.

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

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

¹³ 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 area¹⁴;
- Fines up to \$65,000, or up to 2 years in prison, for contravening marine farming licence conditions¹⁵;
- 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 conditions¹⁶.

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

¹⁴ s.94 of the *Marine Farming Planning Act 1995*

¹⁵ s.86A, *Living Marine Resource Management Act 1995*

¹⁶ 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.¹⁷ 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.¹⁸

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)*.¹⁹ Instead, the *Scottish Planning Policy*²⁰ 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...²¹

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....

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

¹⁸ 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).

¹⁹ 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,

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

²¹ *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)*²² 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.²³

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.”²⁴ 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’.²⁵

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.

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

²³ Scottish Planning Policy, clause 108

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

²⁵ 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%).²⁶

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'.²⁷

Prior to the introduction of the *Resource Management Act 1991*, marine farming in NZ was subject to sector-specific legislation²⁸ 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".²⁹ 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.³⁰

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.³¹

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.³²

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

²⁷ Section 5(2) of the *Resource Management Act 1991*.

²⁸ *Marine Farming Act 1971*

²⁹ 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).

³⁰ 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.

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

³² 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:³³

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*,³⁴ allowing interested parties to make submissions and thereby secure a right of appeal to the Environment Court.³⁵

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.³⁶

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.³⁷

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.³⁸ In addition, any person may request the Court to initiate proceedings regarding a criminal offence committed under the Act.³⁹ 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.

³³ 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).

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

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

³⁶ Section 28 of the *Resource Management Act 1991*.

³⁷ Section 36(1)(c) of the *Resource Management Act 1991*.

³⁸ Section 316(5) of the *Resource Management Act 1991*.

³⁹ 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.⁴⁰ 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.⁴¹

Integrated planning

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

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".⁴³

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'.⁴⁴

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)*⁴⁵. Projects involving work that will interfere with navigable waters⁴⁶, cause harmful alteration, disruption or destruction of

⁴⁰ 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.

⁴¹ 'Aquaculture Statistics', as found on the Statistics Canada website at www.statcan.gc.ca (Accessed 12 May 2012).

⁴² 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.

⁴³ *Oceans Act*, S.C. 1996, c. 31.

⁴⁴ 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.

⁴⁵ 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).

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

fish habitat⁴⁷ or may cause 'significant adverse environmental effects' in another province (transboundary effects)⁴⁸ 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.⁴⁹ There are 4 types of environmental assessment that may be undertaken:

- Screening;
- Comprehensive study;
- Mediation; or
- Panel review.⁵⁰

The level of assessment performed with respect to marine farming projects has consistently been screening.⁵¹ 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.⁵²

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.⁵³ 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.⁵⁴

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

⁴⁸ 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.

⁴⁹ 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).

⁵⁰ 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).

⁵¹ 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.

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

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

⁵⁴ 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*⁵⁵ if the project is likely to affect a listed wildlife species or its critical habitat.⁵⁶ 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.⁵⁷

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;⁵⁸ for review panels, public hearings are required.⁵⁹ 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'.⁶⁰

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.⁶¹ 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'.⁶²

⁵⁵ S.C. 2002, c. 29.

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

⁵⁷ 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.

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

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

⁶⁰ 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.

⁶¹ *Aquaculture Land Use Policy* at paragraph 8.1.7.

⁶² 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 (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*⁶³ 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.⁶⁴

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.⁶⁵

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.

⁶³ R.S.B.C. 1996, c. 131.

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

⁶⁵ 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.⁶⁶ 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.

⁶⁶ 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.