

# Department of Primary Industries, Parks, Water & Environment

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Dear Mr Wright

## FIN FISH FARMING IN TASMANIA

Please find enclosed, a submission to the Legislative Council Government Administration Committee 'A' Inquiry into Fin Fish farming in Tasmania provided by the Department of Primary Industries, Parks, Water and Environment (DPIPWE).

DPIPWE is the Agency responsible for the administration of the legislation that regulates the planning and operation of the marine and freshwater salmonid aquaculture industry in Tasmania under the *Living Marine Resources Management Act 1995*, the *Marine Farming Planning Act 1995* and the *Inland Fisheries Act 1995*.

Thank you for the opportunity to comment.

Yours sincerely

Jason Jacobi  
ACTING SECRETARY

4 December 2019

# Finfish Farming in Tasmania

Submission to the Legislative Council Government  
Administration Committee 'A' Inquiry



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## Introduction

The Department of Primary Industries, Parks, Water and Environment (DPIPWE) is the agency responsible to the Minister for Primary Industries and Water and the Minister for the Environment, Parks and Heritage for the administration of the legislation that governs the Tasmanian finfish aquaculture industry.

The finfish aquaculture industry includes both marine and freshwater farming operations and currently relates to the culture of two salmonid species; rainbow trout (*Oncorhynchus mykiss*) and Atlantic salmon (*Salmo salar*).

The finfish aquaculture industry consists of two distinct stages:

1. freshwater fish farms (hatcheries) located in inland waters where juvenile fish (smolt) are produced; and
2. marine farming lease sites located in State waters where the smolt are grown to harvest size.

## Brief history

Salmonids were introduced into Tasmania from Great Britain to establish commercial fisheries and for recreational purposes. The Plenty River was selected as the site of the first salmon and trout hatchery in the Southern Hemisphere and the Salmon Ponds were constructed in 1862.

The first successful shipment of salmonid ova arrived in 1864, including around 100 000 Atlantic salmon ova and several thousand brown trout ova. While brown trout (*Salmo trutta*) established successful breeding populations, Atlantic salmon failed.

Brook trout (*Salvelinus fontinalis*) and rainbow trout (*Oncorhynchus mykiss*) have also been successfully introduced into the State, with populations of these species now established. Attempts to introduce sockeye salmon (*Oncorhynchus nerka*) and quinnat salmon (*Oncorhynchus tshawytscha*) failed, despite several attempts.

The Tasmanian finfish marine farming industry originated from freshwater trout farms that were established at Bridport in 1964 and at Russel Falls in 1974. This led to the first successful marine farming trial at Nubeena in the early 1980's, where rainbow trout hatched in freshwater were transferred to seawater for grow out.

The success of these trials led to the introduction of Atlantic salmon ova from New South Wales (NSW) in 1984. The ova were originally imported from Nova Scotia, Canada with broodstock held in a hatchery in NSW.

The industry was established as a joint venture agreement between the Tasmanian Government, Norwegian company Noraqua, and local salmon growers. This agreement was developed as an Act of Parliament.

The agreement allowed the transfer of technology and knowledge from Noraqua to assist in the development of the industry during the initial development phase and to establish Salmon Enterprises of Tasmania Pty Ltd (SALTAS), which was responsible for the culture and distribution of smolt to its shareholders.

Up until the late 1990s SALTAS was the only producer of Atlantic salmon smolt in the State, while today a number of private companies have established hatcheries to produce the smolt.

The salmonid industry has grown rapidly from the mid-1980's and has become integral to the fine food component of the Tasmanian brand, providing significant employment (both directly and indirectly through related industries) and generating \$838 million as gross beach value in 2017-18<sup>1</sup>.

The original growth of the industry was administered under the *Fisheries Act 1959* which was repealed in 1995. The Tasmanian salmonid marine farming industry is now principally administered by the *Marine Farming Planning Act 1995*, *Living Marine Resources Management Act 1995*, *Inland Fisheries Act 1995* and the *Environmental Management and Pollution Control Act 1994*.

## Industry Structure

There are currently 16 licenced salmonid freshwater fish farms (hatcheries) operating in inland waters and 47 licenced salmonid marine farming leases in Tasmanian State waters.

There are six freshwater fish farms using flow through systems, seven using combined recirculating and flow through systems, and three using fully recirculating aquaculture systems (RAS).

The salmonid industry has traditionally relied on flow through freshwater fish farms, which are no longer generally considered best-practice from an environmental perspective. Increasingly the salmonid industry is moving to fully recirculating systems with the waste water used to irrigate agricultural land.

Tasmanian salmonid marine farms occupy a total area of 2670 hectares in seven marine farming development plan areas (see Figure 1 for a map of salmonid marine farming development plan areas in Tasmania). Salmonid farming in Tasmania is currently predominantly undertaken by three, vertically integrated companies that grow fish from eggs to harvest.

Tassal Group Limited comprises the trading entities Tassal Operations Pty Ltd and Aquatas Pty Ltd, holding marine farming leases in the D'Entrecasteaux Channel and Huon River, Tasman and Norfolk Bay and Macquarie Harbour marine farming development plans. Tassal Operations Pty Ltd also holds three freshwater fish farm (hatcheries) licences issued under the *Inland Fisheries Act 1995*.

Huon Aquaculture Group Limited comprises the trading entities Huon Aquaculture Company Pty Ltd and Southern Ocean Trout Pty Ltd, holding marine farming leases in the D'Entrecasteaux Channel and Huon River, Storm Bay off Trumpeter Bay North Bruny Island, Tasman and Norfolk Bay and Macquarie Harbour marine farming development plans. These entities also hold seven freshwater fish farm (hatcheries) licences issued under the *Inland Fisheries Act 1995* and two other privately owned freshwater fish farms have commercial arrangements that allow these facilities to grow smolt for Huon Aquaculture Group Limited.

Petuna Aquaculture Pty Ltd has marine farming leases in Macquarie Harbour and one fresh water fish farm (hatchery) licence issued under the *Inland Fisheries Act 1995*. In addition, the Storm Bay North marine farming development plan has been approved, providing Petuna Aquaculture Pty Ltd with water

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<sup>1</sup> Tasmanian Agri-Food Scorecard 2017-18.

in the south of the State. The company has been granted a lease for the area and a licence for finfish production in this area is pending.

Van Diemen Aquaculture Pty Ltd, a subsidiary of Petuna Aquaculture Pty Ltd has a marine farming lease in the Tamar River marine farming development plan.

Russfal Pty Ltd has marine farming leases in Macquarie Harbour but these are currently being subleased to Tassal Operations Pty Ltd and Huon Aquaculture Company Pty Ltd. Russfal does not undertake any salmonid marine farming operations.

Spring Bay Seafoods Pty Ltd has a marine farming lease in Okehampton Bay in the Great Oyster Bay and Mercury Passage marine farming development plan area the majority of which is currently subleased to Tassal Operations Pty Ltd. Spring Bay Seafoods does not undertake any salmonid marine farming operations.

Alstergren Aquaculture Pty Ltd has marine farming leases in the D'Entrecasteaux Channel and Huon River marine farming development plan area but this company also does not currently undertake any salmonid marine farming operations.

Two of the 16 fresh water fish farm (hatcheries) are SALTAS hatcheries, which are a joint venture between industry and government, with the Tasmanian Government being a minor shareholder.

There is also one new freshwater fish farm (hatchery) currently under consideration that Tassal are seeking approval to construct and operate in south-eastern Tasmania.

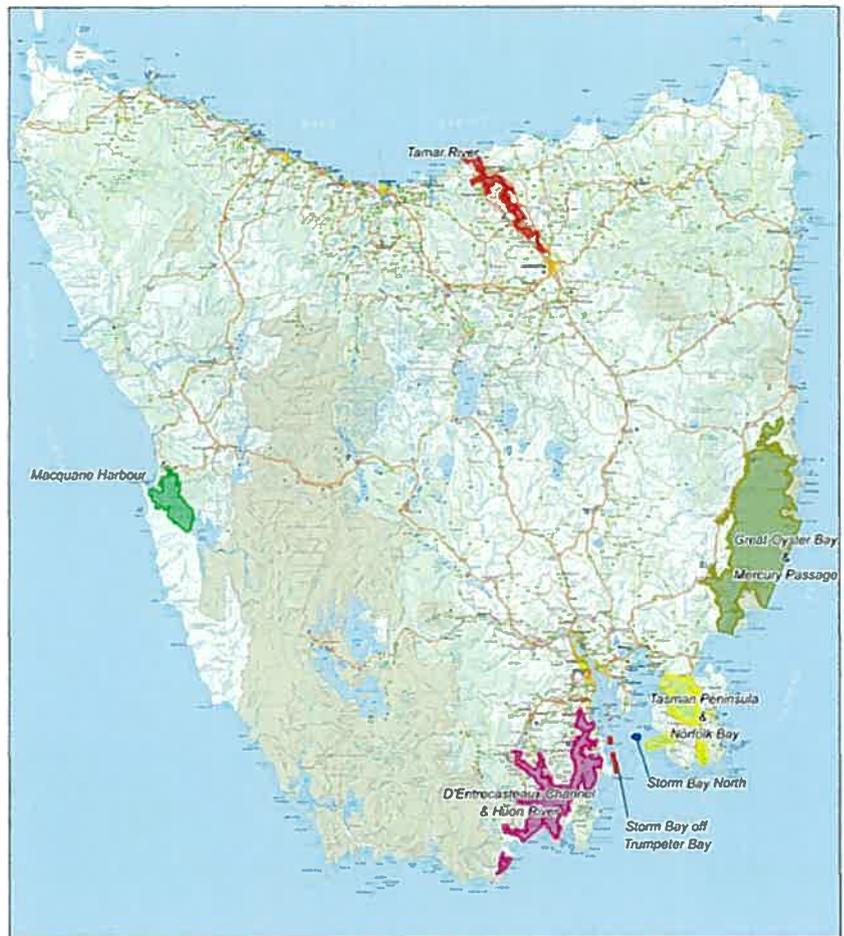


Figure 1. Marine Farming Development Plan areas in Tasmania

## Salmon Growth Plan

In 2017 the Tasmanian Government released the *Sustainable Industry Growth Plan for the Salmon Industry (Salmon Plan)*, which sets out how the Government will support the industry to achieve a revised target of becoming a \$2 billion a year industry by 2030.

The *Salmon Plan* details the Government's vision and priorities for the industry and provides the community with surety on the way forward under the current policy framework. The Government's vision for the *Salmon Plan* is for the industry to:

- continue to deliver increased tangible benefits to Tasmania through sustainable growth – delivering more and better jobs and economic growth (especially in the regions) and acting as a driver of productivity and innovation in the State's economy;
- remain an industry Tasmanians are proud of and have confidence in, by increasing transparency and industry accountability for environmental management and by the introduction of a clear and robust mechanism for expansion; and
- be the most environmentally sustainable salmon industry in the world by continuing to improve environmental performance through industry driven innovation, coupled with appropriate environmental monitoring and regulation.

Since the *Salmon Plan* was developed in 2017, there has been considerable progress made against initiatives contained in the *Salmon Plan*, particularly in areas of biosecurity, transparency, environmental regulation and the reduction of marine debris.

### **Data Availability**

A key commitment of the *Salmon Plan* was increased transparency and accessibility of finfish marine farming data through the introduction of a web data portal. This data portal was released on 27 September 2019 and can be accessed at [dpiipwe.tas.gov.au/sea-fishing-aquaculture/salmon-farming-data-portal](http://dpiipwe.tas.gov.au/sea-fishing-aquaculture/salmon-farming-data-portal)

The portal provides a range of environmental, production and other metrics sourced from across DPIIPWE and the Environment Protection Authority (EPA). It should be noted that some production information is commercial in confidence and cannot be released until the stock market has been advised of company results.

The information that has been reported on the web portal relates to the three finfish producers in Tasmania (Tassal, Huon Aquaculture and Petuna) noting, that as described above, each of these companies has associated consolidated entities along with sublease agreements with other entities. The data shown on the portal is presented for individual Marine Farming Development Plans.

DPIIPWE is also making available to the public copies of all marine farming licences relating to marine farming operations, with copies of these licences available on ListMap. In addition, copies of all the Environmental Licences (EL's) issued by the EPA under the *Environmental Management and Pollution Control Act 1994* (EMPCA) to each salmonid marine farm can also be accessed from ListMap.

### **Marine Debris**

The Tasmanian Government, as part of the *Salmon Plan* identified as a high priority:

- a zero-tolerance approach to marine farming equipment being lost from marine farming leases;
- the mandating of best practice tracking technology for marine farming equipment; and
- simple, practicable ways to identify debris from marine farms.

The 'zero tolerance' approach has been in effect since July 2018. Each instance of marine farming equipment found to be outside a marine farming lease area is considered and responded to, with the priority being safety and retrieval.

Authorised Officers within DPIPWE and Marine and Safety Tasmania (MAST) have the authority to issue infringement notices to lease holders for such offences and several infringement notices have been issued since this approach was adopted.

There are currently two MAST authorised officers and four DPIPWE authorised officers who monitor and respond to breaches in relation to marine debris.

Marine farming operators are required under marine farming development plan Management Controls and lease conditions to both report any loss of equipment and make all reasonable efforts to recover marine farming debris as soon as is reasonably possible. This includes reporting any loss of equipment to MAST, which then issues a 'Notice to Mariners' regarding potential navigational issues.

The finfish industry is taking proactive measures to prevent marine debris at the source through staff education and specific management protocols designed to better manage daily operations, including developing a voluntary marine debris Code of Practice that has recently been drafted by the Tasmanian Salmonid Growers Association (TSGA).

The finfish industry has developed gear marking and colour coding of equipment and registers for identification of individual company's gear and this information has been supplied to DPIPWE for collation into a single marine farming equipment register. Compliance staff in DPIPWE conduct audits of finfish marine farming leases to ensure that all relevant marine farming equipment has been included in these registers.

In addition, the finfish industry is developing debris-management partnerships with the community, environment groups and social enterprises. This includes regular shoreline clean-ups by the industry in finfish growing regions across Tasmania.

The finfish industry through the TSGA have established an App and Hotline for reporting marine debris. Reports on the App and Hotline are followed up by the industry, with the debris retrieved and dealt with appropriately.

Marine debris clean-up and reporting data is collected by the finfish industry and reported to DPIPWE on a quarterly basis. This information is made available to the public through the salmon portal.

### ***Fees and levies***

The Government has substantially increased levies and fees to the salmon companies over the last few years. The levies provide funding for essential marine farming related work, including dedicated compliance and monitoring staff in DPIPWE and the EPA. These staff work with the salmon industry to oversee such things as marine debris development, implementation of procedures for EPA regulation, compliance and environmental performance and setting conditions and monitoring requirements for environmental licences.

## Research and Development

As part of the commitment in the *Salmon Plan* to encourage research and development and support cooperative research and development, DPIPWVE (and the EPA) is supporting several research projects. These include:

- a pilot aquaculture spatial assessment tool, which will inform responsible salmon farming development based on assessment of evidence based scientific and marine values. This work was undertaken in partnership with the Institute for Marine and Antarctic Studies (IMAS), the TSGA, the Tasmanian Association for Recreational Fishing and the Tasmanian Seafood Industry Council.
- developing hydrodynamic and biogeochemical modelling as well as monitoring and decision support tool development for the Storm Bay region. This work is being undertaken by CSIRO and IMAS and is funded by the Fisheries Research and Development Corporation (FRDC).
- developing offshore solutions that will allow aquaculture to move into more exposed conditions. This work is being undertaken through the Blue Economy CRC. The Tasmanian Government is contributing \$2M during the term of the CRC and DPIPWVE staff are actively providing support and advice to the Blue Economy project team.

The level of the Australian Government funding commitment (through the Department of Industry, Innovation and Science), makes this CRC one of the largest in the program's history, which, considering the cash and in-kind contributions to be made by the 40 plus partners will see investment of over \$330 million for the CRC's 10-year term.

The Blue Economy CRC will provide for innovation and development of:

- offshore engineering and technology that will provide engineering solutions that create healthy growing conditions using the latest technologies for construction, installation, automation, monitoring and maintenance of offshore infrastructure.
- aquaculture systems to provide solutions in animal and plant husbandry and feed design.
- solutions for modelling and monitoring to understand the environment impacts of new offshore developments.
- 'fit for purpose' policies, regulatory instruments and sustainable business development and commercialisation models.

A One Year Review of the implementation of the *Salmon Plan* was conducted in 2018. It provides details on all the work to date and outlines initiatives that will be delivered in the coming years to support environmentally responsible, sustainable growth. The One Year Review can be accessed at [dpirwe.tas.gov.au/Documents/Salmon%20Plan%20-%20One%20Year%20Review.pdf](http://dpirwe.tas.gov.au/Documents/Salmon%20Plan%20-%20One%20Year%20Review.pdf).

## Biosecurity Planning

With the commencement of the *Biosecurity Act 2019*, a new regulatory regime has been introduced to address disease introduction and transmission concerns. The objectives of the *Biosecurity Act 2019* are:

- to ensure that responsibility for biosecurity is shared between government, industry and the community;

- to protect Tasmania from threats posed by pests and diseases to land and water-based industries and environments, public health and public amenities, community activities and infrastructure;
- to provide a robust and fair regulatory framework for biosecurity in Tasmania that is based on sound risk assessment and evidence;
- to give effect to State, national and international biosecurity agreements and strategies, such as the Tasmanian Biosecurity Strategy;
- to facilitate the trade of Tasmanian produce by ensuring it meets national and international biosecurity requirements; and
- to promote compliance with a 'general biosecurity duty' through emergency preparedness, effective enforcement measures, and communication and collaboration between government, industry and the community.

As framework legislation, the *Biosecurity Act 2019* sets out the overarching legal concepts, principles, functions, and legal machinery to support biosecurity management in Tasmania.

Biosecurity Tasmania has begun work in relation to the development of a salmon industry biosecurity program and has assessed the enabling provisions of the *Biosecurity Act 2019* in relation to regulation of biosecurity in the industry.

Following further consultation with the industry, a Biosecurity Program will soon be established that will improve the overall biosecurity of all salmonid farms in Tasmania with respect to managing infectious diseases of salmonids and associated aquatic pests.

This will be achieved through a series of zone-specific biosecurity standards imposed under the program that are designed to reduce biosecurity risks between growing regions, year classes, operators, and individual farms, where practicably possible.

These biosecurity standards will protect the industry from the risks posed by the introduction, establishment and spread of aquatic biosecurity risks (pests and disease pathogens) that have an adverse effect on fish health, welfare and productivity, and help to protect the wider environment from those biosecurity risks by:

- a. Minimising the risk of introduction of biosecurity risks;
- b. Minimising the risk of spread of biosecurity risks; and
- c. Minimising the impact of endemic, introduced or new and emerging biosecurity risks.

## Planning Processes under the *Marine Farming Planning Act 1995*

The *Marine Farming Planning Act 1995* (MFPA) sets up the process for planning for marine farming development. The purpose of the MFPA is to achieve well-planned sustainable development of marine farming activities to:

- integrate marine farming activities with other uses; and
- minimise adverse impacts; and
- set aside areas for activities other than for marine farming activities; and

- take account of land uses; and
- take account of the community's right to have an interest in those activities.

The MFPA shares its objectives with other State resource management legislation including the *Living Marine Resources Management Act 1995* (LMRMA), where marine farming activity is regulated and managed through marine farming licences, and the *Environmental Management and Pollution Control Act 1994* (EMPCA), which sets up environmental licences for the regulation of finfish farming and empowers the EPA to regulate the environmental impact associated with finfish farming.

The MFPA, LMRMA and EMPCA are components of Tasmania's Resource Management Planning System (RMPS), which was established in 1994 to achieve sustainable outcomes for the use and development of the State's natural and physical resources.

The planning process set out in the MFPA is extensive and comprehensive. The same process applies for all sea-based marine farming planning developments, whether for finfish, shellfish or other species, such as seaweeds.

The planning authority is the Secretary of DPIPWE. The MFPA establishes a review panel (the Panel), which considers and reviews planning proposals and makes recommendations to the Minister. The Director, EPA has statutory involvement throughout the planning process. The Minister determines planning outcomes.

The focus of the planning process is on the planning, rather than operational elements of a proposal. Marine farming areas are identified through marine farming development plans (plans). A development plan identifies zones for marine farming, how much area may be leased within each zone and contains management controls to mitigate, minimise and manage any negative effect on the environment.

There are currently 14 marine farming development plans, including seven where salmonid marine farming leases operate. The complete list of marine farming development plans can be viewed at [dpiipwe.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/marine-farming-development-plans/current-marine-farming-development-plans](http://dpiipwe.tas.gov.au/sea-fishing-aquaculture/marine-farming-aquaculture/marine-farming-development-plans/current-marine-farming-development-plans)

The plans work in conjunction with conditions on marine farming leases, as well as marine farming licences (issued under the *Living Marine Resources Management Act 1995*) and environmental licences (issued under the *Environmental Management and Pollution Control Act 1994*).

The MFPA sets out two distinct planning processes: creation of a new plan; and amendment of an existing plan.

### **Role of the Panel**

The Panel is a statutory body established under Section 8 of the MFPA. The primary function of the Panel is to consider marine farming planning matters and make recommendations to the Minister. The Panel comprises up to nine individuals appointed by the Governor:

<b>Position</b>	<b>Current member</b>
Chairperson	Mr Andrew Paul
A person nominated by the chairperson of the Tasmanian Planning Commission with ability and experience in planning issues	Mr Mitchell Clark
A person, other than the Director, EPA, with ability and experience in environmental management	Ms Jo-Anne Fearman
A person, other than the Director, EPA, with ability and expertise in fish health and biosecurity	Dr Rod Andrewartha
A person with ability in marine resource management	Professor Colin Buxton
A person with ability to assess boating, recreational and navigational issues	Mr Terry Long
A person with experience in marine farming	Mr Pheroze Jungalwalla
A person with expertise in local government issues	Mr Neil Campbell
A person nominated by the Minister	Ms Heather Chong

The general functions and powers of the Panel are provided in the MFPA under Section 9, being:

- to consider draft plans, draft amendments to marine farming development plans and draft modifications to marine farming development plans following reviews;
- to consider environmental impact statements;
- to consider comments made on draft plans, draft modifications and draft amendments;
- to make recommendations to the Minister in respect of draft plans, draft modifications and draft amendments;
- to perform any other function imposed on it under the Act or any other Act; and
- to undertake any other function or activity the Minister determines.

The Minister, by notice in writing, may give directions to the Panel. The Panel must perform its functions and exercise its powers in accordance with any directions given by the Minister.

In undertaking its functions, the Panel may conduct hearings to assist it in the performance of its functions and do anything necessary or convenient to perform its functions.

To assist the Panel in performing its functions the Department's expertise and capabilities are available to it upon request. Additionally, the MFPA provides for the Panel to seek expert advice from any person or body on:

- the adequacy or otherwise of proposed environmental controls;
- technical aspects in relation to marine farming;
- biological and physical requirements of fish species; and
- any other matter to assist it in performing its functions.

### ***Creation of marine farming development plans***

The MFPA sets out a specific process by which a development plan is made. The process requires the Minister to consent to the preparation of a draft plan, which, once drafted, is submitted to the Panel by the planning authority. The Panel considers the draft plan and, if satisfied that it meets the requirements of the MFPA (including any requirements of the Director, EPA), recommends the draft plan be released for public exhibition.

If the Minister approves the public exhibition of the draft plan, it is exhibited, together with the required environmental impact statement (EIS) for two months, during which time people may make submissions.

The submissions are considered by the planning authority, which submits a report to the Panel recommending whether the draft plan should be modified as a result of any submission. The Panel considers the submissions, the planning authority's report, environmental management matters that the Director, EPA requires the Panel to consider and, if the Panel considers it necessary, or if someone has requested, conducts hearings.

The Panel then forms a view on whether the draft plan is acceptable, should be modified, or should be rejected. If it is acceptable, the Panel recommends to the Minister that the draft plan be approved and the Minister, after considering that recommendation, may approve the draft plan.

Fifteen marine farming development plans have been approved through this process. Eight of these relate to areas where finfish may be farmed, however one of these (Furneaux Islands) does not currently have any active finfish marine farms. Thirteen of these plans were created through a government-led process in the years following the commencement of the MFPA. These plans related to pre-existing marine farming regions.

They considered the location of existing farms (that had been established prior to the commencement of the MFPA) and, where appropriate, zoned these locations or identified alternative locations for those farms to move to. They also identified new zones where possible, to provide for industry expansion and development.

A further two plans have been created following a proponent-led process, one in 1998 (Storm Bay off Trumpeter Bay, North Bruny Island) and the other in 2019 (Storm Bay North). The two new plans prepared by proponents have related to discrete areas distinct from any existing plan areas. The MFPA provides for either government-led or proponent-led scenarios.

### ***Amendment of existing plans***

The MFPA also provides for the amendment of existing plans. The process for an amendment may begin with a proponent submitting a formal request for amendment. The planning authority is then required, within 35 days, to recommend to the Panel whether the draft amendment should be made. If the Panel approves the making of the draft amendment, the Panel seeks the consent of the Minister to direct the planning authority to prepare the draft amendment.

If the Panel refuses to approve the making of the draft amendment, this decision by the Panel may be appealed to the Resource Management and Planning Appeals Tribunal.

Alternatively, the MFPA provides that the Panel may at any time determine that an amendment to a plan is desirable, either of its own motion, or in response to a request from the Minister, the planning authority or the Director, EPA.

Except where the request is from the Minister or the Director, EPA, the Panel may only direct the planning authority to prepare the draft amendment with the Minister's consent.

Since 2009, most amendments have been proponent-led.

Once directed by the Panel, the planning authority prepares the draft amendment and submits it to the Panel for consideration. If the Panel is satisfied that the draft amendment is suitable for exhibition, the Panel certifies it as such and recommends it to the Minister.

If the Panel considers that the draft amendment is not suitable, it may modify the draft amendment directly, or refer it back to the planning authority for modification. This can be an iterative process and can take considerable time.

The Minister may then approve the release of the draft amendment for public exhibition. The draft amendment and accompanying environmental impact statement (EIS) are released for a period of between three weeks and two months.

The Director, EPA may issue the Panel with requirements that must be addressed in the draft amendment, EIS, or considered by the Panel throughout the process.

### ***Environmental impact statement and pre-planning assessment***

As well as the preparation and consideration of a draft plan or draft amendment, the planning process involves the preparation of an EIS pursuant to section 23 of the MFPA, to

- disclose any available information relating to the environmental impact of the draft plan, except if there is a reason for confidentiality;
- if it relates to finfish farming, address any matter relating to environmental management that is required by the Director, EPA, in a notice under section 17A(1), to be addressed in the environmental impact statement or in any environmental impact statement;
- contain information appropriate to the significance of the draft plan, a modification to a draft plan, a draft amendment to a plan and a modification to a draft amendment to a plan to the environment and the likely public interest.

Under either a new plan or an amendment process, an early step is for the Minister to provide consent for the draft plan or draft amendment to be prepared. Such approval indicates that the Minister is satisfied with the general intent and concept of the proposal.

In the case of an amendment, this also comes after the planning authority has recommended to the Panel that the amendment be made and the Panel has considered and approved the making of the amendment. The Director, EPA is notified of an application and any approval by the Panel or the Minister.

To inform this assessment, DPIPWE has implemented a pre-planning process that a proponent must work through. It involves preparing a proposal overview, which is used by DPIPWE, with input from the Panel and the EPA, to prepare proposal specific guidelines for the EIS that will be required if the proposal proceeds.

The pre-planning process further requires that a draft EIS is prepared to an acceptable standard by the proponent before making application to either prepare a new plan, or an amendment.

This pre-planning process ensures that fundamental considerations are thoroughly worked through before a proposal is taken forward, so that only well considered proposals proceed to the formal planning stage.

For a proposal to be suitable to proceed, it must meet the requirements set out in sections 21 and 22 of the MFPA. This includes a requirement that:

- it furthers the objectives of resource management within the area; and
- it has regard to use and development of the region as an entity in environmental, economic, recreational and social terms; and
- if it relates to finfish farming, it contains any matter relating to environmental management that is required by the Director, EPA to be contained in the plan or amendment.

The formal planning stage then provides for robust, independent review by the Panel, formal notification to the Director, EPA and consideration of any requirements they may have and statutory public consultation (which is in addition to the extensive public engagement that necessarily occurs as part of the pre-planning process).

Through this process the draft plan, or draft amendment may be modified if necessary (and, if the modifications are substantial, may be subject to further public consultation).

### ***Suitability for public exhibition***

The MFPA sets out that a draft plan or draft amendment is suitable for public exhibition when:

- it complies with sections 21 and 22, which set out the things a draft plan or draft amendment must do, may do and must not do;
- it contains any matters relating to environmental management of finfish farming that the Director, EPA, requires;
- it is accompanied by an environmental impact statement; and

- as the circumstances require, it contains appropriate details about marine farming zones, maximum leasable areas, draft management controls etc.

The Panel, therefore, considers a draft plan or draft amendment in relation to each of these aspects to inform its assessment of whether to recommend it for public exhibition.

### ***Public consultation and final recommendation***

Public engagement occurs in two phases in the planning of marine farming developments. The first phase occurs during the formulation of the proposal and the preparation of the EIS. This is led by the person preparing the draft plan or draft amendment, who is required to engage with the community in relation to the proposal, to gauge views, any concerns and work with government and stakeholders to avoid or mitigate potential impacts. The outcomes of this engagement are detailed in the EIS.

The second phase is the statutory process. This involves public exhibition, representations and (potentially) hearings. A draft plan is released for two months and a draft amendment is released for at least three weeks and at most two months. People may make written submissions (representations) during this period.

At the end of this period, each representation is carefully analysed and the issues raised are considered by the planning authority. The focus of this process is on what concerns are raised in the submissions, and how the management framework allows those issues to be managed through mitigation or avoidance, or, if necessary, how it may be modified through the planning process to provide the required regulatory capability.

The planning authority prepares a report for the Panel containing a copy of each submission, the planning authority's assessment of the issues raised, and whether the draft plan or draft amendment should be modified, or whether the issues have an effect on the draft plan or draft amendment as a whole.

The Panel considers this report and, if it considers it necessary, or if any representor has so requested, it conducts public hearings in relation to the draft plan or draft amendment. The Director, EPA also receives a copy of the report and in response may formally require the Panel to consider specific matters.

Through this process the MFPA places considerable emphasis on public consultation to inform the assessment of whether the draft plan or draft amendment is suitable.

After considering the representations, the planning authority's report and the information received through the hearing process and any matters as required by the Director, EPA, the Panel then proceeds to determine whether to recommend to the Minister that the draft plan/draft amendment be approved.

This may include either modifying the draft plan/draft amendment or requiring the planning authority to modify the draft plan/draft amendment before being satisfied to recommend it for approval. If the Panel is not satisfied, the MFPA allows for the draft plan/draft amendment to be modified until an acceptable solution is reached.

## ***Role of the Minister***

The Minister is involved throughout the planning process. The Minister's consent is required before drafting of a plan or amendment to a plan commences. In this way, proposals that are unlikely to ultimately be acceptable to the Minister of the day do not proceed through the process.

The Minister is again involved in approving the release of a draft plan or draft amendment for public exhibition. Once again, only proposals that the Minister is willing to consider make it to the stage of statutory consultation.

The power to make the final determination in relation to a draft plan or draft amendment then also rests with the Minister. For a new plan, the Minister may approve the draft plan, or refer the draft plan back to the Panel, indicating any concerns the Minister has. The draft plan is then re-considered through the planning process.

For an amendment, the Minister may seek any further information the Minister requires from the Panel, the Board of Advice and Reference, or the Director, EPA, prior to making a decision to accept the amendment without change, reject the amendment, or approve the amendment subject to alterations.

Where the Minister's determination is other than that recommended by the Panel, the Minister must notify parliament of the decision. Where the decision is to approve with alterations, and the alterations are minor, trivial or clerical, this requirement does not apply.

## ***Amendment is not of a substantial nature or is to correct an error***

In some situations, a draft amendment to a plan may not require an EIS or public consultation.

The Act provides that if the Panel is satisfied that a draft amendment is to correct an error, is not of a substantial nature, or is to remove an anomaly to clarify or simplify a plan, it may recommend to the Minister that the EIS and public consultation provisions do not apply. If the Minister agrees that those elements are not required, the Minister may then proceed to approve the amendment directly.

## ***Allocation of leases***

The MFPA provides for the establishment of a Board of Advice and Reference (BAR). Section 50 of the MFPA defines the functions of the BAR.

The functions of the BAR are –

- (a) to advise the Minister on any matter the Minister may refer to it; and
- (b) to perform any other function the Minister directs.

The BAR played a key statutory function post 1996 following the proclamation of the MFPA in providing the Minister with advice on the allocation of new water for marine farming leases identified in marine farming development plans, in accordance with the statutory provisions contained therein.

However, following the initial allocation processes, the workload of the BAR had been minimal since the mid-2000's. Amendments to the MFPA in 2011 provided additional options for lease allocation following proponent led planning processes that do not involve the BAR.

In 2015, as the BAR had not met in several years, the then Minister, the Hon. Jeremy Rockliff, abolished the BAR in accordance with the provisions of the Act. While the BAR is no longer required for the lease allocation following a proponent led process, there are still some circumstances where it may be required.

If the BAR is needed in future, the Act provides for it to be re-established.

The allocation of leases follows a process set out in the Act. There are two distinct approaches, depending on whether the marine farming zone has been created through a proponent led process or a government led process.

Where a zone is established through a government led process, the MFPA requires that the Minister seeks the advice of the BAR as to who should participate in an allocation process. The Minister can also seek advice from any other relevant person considered appropriate.

The Minister then considers the advice and determines who should participate in the process.

The Minister may also seek advice of the BAR about the method and criteria to be used to allocate a lease. However, since the bar was abolished, there have been no government led processes.

The allocation process could involve some form of tender and may, for example, be open, in the case of a new zone that has been created 'on spec'. Alternatively, where a zone has been created to facilitate a strategic need, it may be appropriate that only existing participants or specific existing lease holders participate in the process.

This type of approach was adopted in the early days of the implementation of plans, where zones were created with a stated intention that an existing legacy lease holder may be facilitated to move into a zone created by a plan.

For a proponent led process, the Minister may seek the advice of the BAR and can also seek advice from any other relevant person considered appropriate. Alternatively, where a zone is established as a result of a 'privately prepared plan' or 'privately prepared amendment' (i.e. a proponent led process), the Minister may invite the proponent to apply directly for a lease, without reference to the BAR. This has been the process used for recently approved plans or plan amendments and recognizes the time and investment which has been made by the proponent seeking approval for the new area. Following application by the proponent, the Minister may then grant the lease.

The Act empowers the Minister to grant 'certificates of preference' to people who have prepared a draft plan, or who have made a significant research contribution, which has a direct relevance to the activities of the marine farming zone. Someone who has a certificate of preference may participate in one allocation process. The BAR may provide advice to the Minister on whether a person with a certificate of preference should participate in any particular allocation process.

These arrangements exist within the Act to assist orderly, fair and transparent allocation of leases. It enables a person who undertakes a planning process or who 'proves up' the suitability of an area to have a reasonable expectation that, if the planning process is approved, they will have first option on a lease. Equally, it provides that the Government may plan for areas of marine farming development and make those available to the market, allocating the lease to the person who is likely to provide the greatest overall benefit from use of the area.

The *Salmon Plan* also contains commitments around providing access to any new farming areas (described in the *Salmon Plan* as “Potential for further release” areas). All ‘new’ water will be subject to a competitive tender, with advice on the tenders for a particular area of water to be provided to the Minister by a Tender Advisory Board. Tenders will be assessed with a view to maximising community benefit and amenity.

## Marine farming leases

The MFPA provides for marine farming leases to be issued for a maximum thirty years. The lease confers on the lessee exclusive possession of the area specified in the lease and any specified area of seabed in the lease. The marine farming lease document contains a standard set of conditions as drafted by Crown law, the plan of the marine farming lease, and a deed of agreement between the Crown and the leaseholder.

Marine farming leases have a range of conditions in regard to the operation of the lease including, keeping the lease area neat and tidy, retrieval of equipment that has broken away from the lease in a reasonable timeframe, and marking of the lease to the satisfaction of the Minister and MAST.

The marine farming lease is the instrument that facilitates the collection of annual lease fees for the area of water allocated by the Crown. The fees are determined under the marine Farming Planning Regulations 2016 and are based on fee units that are re-determined on an annual basis. Finfish rental fees for 2019/20 consist of a base fee of \$2,673.00 GST inclusive and \$302.94 GST inclusive per hectare of the marine farming lease.

## Freshwater Fish Farms (Hatcheries)

All freshwater fish farms (hatcheries) are licensed by the Director of Inland Fisheries under Division 3 of the *Inland Fisheries Act 1995*. Under the *Inland Fisheries Act 1995*, a fish farm means any area on land or in inland waters used to farm, culture, hatch, rear, ranch, enhance or breed freshwater fish for commercial or research purposes.

The Director of Inland Fisheries has power to grant fish farm licences to grow declared fish<sup>2</sup> in inland waters. If Atlantic salmon is involved, then the agreement of the Minister administering the LMRMA is required.

Freshwater fish farm licences contain conditions to regulate matters including the species of fish permitted to be grown; the location and size of the farm; the source of supply of fish stock; notification requirements; disease management; and measures to prevent the escape of fish from the farm.

A freshwater fish farm licence is in force for a period, not exceeding 20 years, as specified in the licence unless action is taken under the *Inland Fisheries Act 1995* to cancel the licence. Presently freshwater fish farm licences are only issued for a three-year period. The *Inland Fisheries Act 1995* also contains provisions for variation, transfer, renewal and surrender of fish farm licences.

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<sup>2</sup> On 31 May 1996 species of fish that are not indigenous to inland waters in Tasmania were declared to be fish to which Division 3 of Part 3 of the *Inland Fisheries Act 1995* applies (fish farm licences). This includes salmonids (See *Inland Fisheries (Declared Fish) Order 1996*).

The regulation of the freshwater fish farms by the Inland Fisheries Service (IFS) includes measures that protect industry infrastructure, promote and enhance biosecurity, introduce contemporary management systems, including compliance and audit, and promotes the potential for industry expansion in the future through sustainable industry practices.

This is delivered by a Fish Farm Management Plan for each farm. This approach benefits the community and industry through:

- improved biosecurity between fish farms for diseases;
- improved biosecurity between fish farms and wild fisheries;
- supporting sustainable growth of salmonid industry;
- protection for industry from illegal activity;
- complementing the regulation of the industry through the EMPCA and new Biosecurity Act;
- increased capacity to prevent unwanted fish incursions;
- protection of biodiversity and environmental assets;
- supporting community expectations for regulation of industry.

In addition, all freshwater fish farms are issued Environmental Licences under EMPCA. Progressive improvements have been made to the environmental management of fish farms currently producing salmonids in Tasmania's inland waters.

A range of environmental regulation processes that were in place prior to the EPA taking responsibility for this have now been consolidated into Environmental Licences. Conditions for each of these premises have been steadily upgraded, based on improvements in data and with industry input, to ensure contemporary environmental regulation of these facilities.

## Ecologically Sustainable Development and Adaptive Management

The National Strategy for Ecologically Sustainable Development is the policy within which Australian state and federal governments have agreed that aquaculture development is to be implemented. This strategy was endorsed by the Council of Australian Governments in 1992 and has three core objectives:

- to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations;
- to provide for equity within and between generations; and
- to protect biological diversity and maintain ecological processes and life support systems.

The strategy is implemented under the guidance of a number of ecological and development principles. It emphasises that a balanced approach is required for ecologically sustainable development and these guiding principles and core objectives need to be considered as a package. No objective or principle should predominate over the others.

Management judgments have to be based on the available scientific evidence of risk, and the levels of short and long-term impacts that are acceptable in the socio-economic as well as ecological context.

In Tasmania, an adaptive management approach that is consistent with Tasmania's Resource Management and Planning System, and ecologically sustainable development principles, is applied to

salmonid marine farming. This approach enables effective and timely responses to the evolving issues that arise from a dynamic industry operating in a highly challenging environment.

## Environmental management of finfish farming operations

The *Marine Farming Planning Act 1995* provides for the preparation of marine farming development plans which include specific management controls to manage and mitigate potential negative effects of marine farming operations.

Management controls relating to environmental monitoring and management of marine farming operations include provisions on a range of issues like:

- levels of unacceptable effect;
- nitrogen outputs;
- carrying capacity;
- monitoring requirements;
- chemical usage and reporting;
- waste;
- disease;
- visual effects;
- access and marking;
- odour;
- noise;
- marine farming equipment; and
- predator control.

In establishing a marine farming development plan or progressing an amendment to a zone or zones within an existing marine farming development plan area, targeted zone assessments must be undertaken. This environmental survey assesses substrate type, habitat distribution, bathymetry and benthic flora and fauna.

The *Living Marine Resources Management Act 1995* (LMRMA) requires marine farming leaseholders to hold a marine farming licence to farm fish (under the LMRMA fish include a range of species).

In addition, the *Environmental Management and Pollution Control Act 1994* (EMPCA) requires marine farming leaseholders to hold an environmental licence to farm finfish.

A baseline environmental survey must be undertaken prior to the commencement of marine finfish farming operations. The provision of an environmental licence by the EPA for a lease area for finfish is contingent on assessment and approval of the baseline environmental survey report.

Marine farming licences contain specific provisions in relation to the management of marine farming operations. In many cases licence conditions contain specific conditions that expand on the provisions of management controls, defining environmental standards and outlining reporting and monitoring requirements.

Should there be a need to modify licence conditions following consideration of monitoring, research or compliance outcomes, prescribed controls can be varied at any time in accordance with provisions of

the *Living Marine Resources Management Act 1995* or the *Environmental Management and Pollution Control Act 1994*, depending on which licence requires modification.

Following the environmental licensing of a marine farming lease area, ongoing operations are subject to a structured environmental monitoring and compliance assessment process, which involves ongoing review of monitoring and compliance reporting information against management controls, prescribed indicators and trigger levels.

This framework ensures that the impacts on the marine environment from the production of salmonids with respect to both solid and soluble wastes are limited to a level that can be assimilated without unacceptable environmental harm.

### ***Threatened and protected marine species interactions***

Marine species are listed and protected under various pieces of Tasmanian legislation. The primary act is the *Threatened Species Protection Act 1995* (TSPA). The TSPA lists a number of marine species including numerous coastal or oceanic bird species, four whale species, three seastar species, the Spotted handfish, the Gunn's screwshell and the Maugean Skate.

The TSPA sets out a range of measures to protect listed threatened species and makes it an offence to take a listed species without a permit.

In addition, the Wildlife (General) Regulations 2010 (regulations made under the *Nature Conservation Act 2002* (NCA)), list Specially Protected or Protected Wildlife. A large number of marine mammals and coastal or oceanic bird species are listed as either Specially Protected or Protected Wildlife.

The Fisheries (General and Fees) Regulations 2006 also provides for the protection of a number of fish species. Species protected under these regulations include five shark species (of particular note being the Great White Shark) and all handfish of the family Brachionichthyidae (in effect all handfish species that occur in Tasmania).

The NCA and the TSPA are also components of the Resource Management and Planning System.

Freshwater species are listed and protected under the TSPA and the *Inland Fisheries Act 1995*. There are two species that are potentially impacted by freshwater hatcheries, the Australian grayling and the giant freshwater crayfish. The possession or take of these species is prohibited.

Threatened species are explicitly covered in the EIS, which is a statutory requirement under the MFPA to accompany draft marine farming development plans and draft amendments/modifications to such plans.

When developing zone assessment surveys, baseline surveys or environmental impact statement documentation, there is liaison between the respective Divisions within DPIPW and the Director of the EPA.

This liaison ensures that survey requirements for threatened species are appropriate and that specific advice is obtained on suitable mitigation measures to ensure that threatened and protected species impacts are reduced as far as possible.

By far the most common wildlife species interactions with the marine farming industry involve Australian and (New Zealand) long-nosed fur seals. The primary mechanism for regulation of seal interactions with

marine farming infrastructure and operations is the industry-agreed Seal Management Framework 2018 (SMF).

The SMF outlines the broad marine farming seal management system in Tasmania, with detailed procedural information provided in the supporting Minimum Requirements for the Mitigation of Seal Interactions with Aquaculture Staff and Infrastructure 2018A (the Minimum Requirements).

Under the SMF, marine farming lease holders that demonstrate approved wildlife exclusion standards and have agreed to implement policies and procedures in accordance with the Minimum Requirements for a particular management option, are permitted to undertake approved seal management actions.

Wildlife exclusion measures largely focus on exclusion of fur seals from fish containment pens, but also include a number of requirements for exclusion of birds.

Direct seal management actions are undertaken by the marine farming industry, under permit, where appropriate. This facilitates effective and timely management of seal interaction issues by marine farming operators, while ensuring that management actions are undertaken in an agreed, appropriate and transparent manner.

Aside from exclusion, current seal management options include deterrent devices, trapping, sedation, and humane destruction in rare circumstances. These activities may only be conducted by suitably-trained marine farming operators under permits issued by the Department.

In addition, Department Officers conduct regular audits of farm infrastructure and seal management equipment to ensure it meets the standards outlined in the Minimum Requirements.

Relocation of seals from marine farming leases to other parts of the State to manage seal interactions was banned by the Tasmanian Government in September 2017.

### **Compliance management**

All salmonid marine farming leases (and the surrounding shorelines) are regularly inspected by authorised officers from the Marine Farming Branch (MFB) of DPIPW and Marine and Safety Tasmania (MAST).

The compliance program reviews finfish operations against conditions contained in marine farming leases and licences along with management controls contained with the MFDP's. Where issues are identified investigations are conducted and appropriate compliance action taken.

### **Historical environmental compliance**

Historically environmental management and compliance of the finfish industry was regulated by DPIPW under the *Living Marine Resources Management Act 1995* and the *Marine Farming Planning Act 1995*.

In June 2016, the Tasmanian Government announced changes to the regulatory framework surrounding finfish farming activities, reflecting the significant growth in the industry. The EPA became responsible for the environmental regulation of finfish marine farms, and so that this could commence immediately, the EPA Director was provided relevant delegations under the *Marine Farming Planning Act 1995* and *Living Marine Resources Management Act 1995*.

The functions of industry planning and development however, remains under the jurisdiction of the Minister for Primary Industries and Water.

Provisions relevant to the Director, EPA include:

- specific management controls within Marine Farming Development Plans that provide the Director, EPA with powers relating to the management of nitrogen and auditing of finfish industry data. Management controls also contain other specific environmental controls relating to carrying capacity.
- *Marine Farming Planning Regulations 2016* prescribe a special penalty relating to the exceedance of nitrogen limits (commonly referred to as nitrogen cap) determined by the Director, EPA. The penalty is a fine of \$150,000 for each tonne of dissolved nitrogen that exceeds the assigned quantity of dissolved nitrogen.
- the LMRMA requires the Secretary of DPIPWE to notify the Director, EPA of application to grant, renew and transfer of finfish marine farming licences along with the Minister's decision in relation to these applications. The Director, EPA must also be notified of the surrender of a finfish marine farming licence.

In order to transfer the environmental regulatory responsibility for finfish farming to the EPA into law in a permanent and comprehensive manner, changes to a number of pieces of legislation were required. To implement these changes, the *Finfish Farming Environmental Regulation Bill 2017* was prepared and introduced into Parliament on 17 August 2017. It received Royal Assent on 4 December 2017.

## Finfish Farming Environmental Regulation Act 2017

The *Finfish Farming Environmental Regulation Act 2017* (Finfish Act) established the legal structure empowering the Director, EPA with an independent statutory role for the environmental regulation of the State's finfish farming industry, including marine and freshwater farms.

It amended several Acts relating to the management of the finfish farming activities and establishes Tasmania's *Environmental Management and Pollution Control Act 1994* (EMPCA) as the primary piece of environmental regulation legislation.

EMPCA provides an Environmental Licence (EL) as the new regulatory instrument for both marine and freshwater activities. This means that anyone operating a marine or inland freshwater finfish farm must hold an EL under EMPCA in addition to holding a Fish Farm Licence under the *Inland Fisheries Act 1995*, in the case of an inland freshwater fish farm, or a Marine Farming Licence under the *Living Marine Resources Management Act 1995*, in the case of a finfish marine farm.

EL conditions require the companies to undertake regular visual monitoring of the benthic impacts associated with farming salmon at all marine farming sites in the State. There are a range of controls relating to the management of lease areas and to respond to any significant visual impact at defined compliance points 35 metres away for the lease boundary.

Water quality and benthic condition monitoring associated with salmonid marine farming specifically relates to assessment of benthic condition and water quality in marine farming development plan areas.

These monitoring programs are subject to a consistent management framework applying to operational finfish marine farming lease areas.

Ongoing benthic monitoring is required in all marine farming development plan areas and water quality monitoring is required in the major production areas of the State including in the D'Entrecasteaux Channel and Huon River and Storm Bay Marine Farming Development Plan areas in the southeast and in the Macquarie Harbour Marine Farming Development Plan area, on the west coast.

### ***Benthic condition management framework***

Stressors to benthic health associated with particulate organic waste material are managed using an adaptive monitoring and data reporting framework. This framework provides for the assessment and management of potential effects of particulate organic waste material on benthic health in and around finfish marine farming lease areas. Waste material associated with salmonid marine farming activities can be in the form of fish faeces, waste fish feed and in situ cleaning effluent.

Management objectives and indicators specific to benthic condition are defined in management controls and environmental licence conditions and prescribe ongoing monitoring and reporting requirements.

Fish cage specific feed input and net cleaning information is reported to the regulator pursuant to marine farming licence conditions and used by DPIPW and the EPA to determine monitoring survey specifications and focus monitoring effort in appropriate locations within and outside operational lease sites.

Monitoring surveys may be subject to audit by the EPA. Geo-referencing and reporting protocols are in effect to ensure data is collected from prescribed locations.

Monitoring reports and underwater video footage must be reported by the lease holder, pursuant to environmental licence conditions issued by the EPA and these are assessed against specified criteria, aligned with relevant management objectives. The outcomes of these assessments are then communicated to relevant stakeholders.

Dependent on the outcomes of the monitoring, the ongoing monitoring cycle may continue unchanged, or, if necessary, further information on benthic condition can be collected through an immediate and targeted triggered survey to verify attribution.

In the event that significant benthic impact is evident and attributable to finfish marine farming operations, the regulators direct the lease holder to undertake a range of management responses consistent with management controls to mitigate these effects. The spatial extent and frequency of monitoring can also be increased thereby providing the capacity to accurately gauge the effectiveness of the chosen management response and in turn inform future management approaches.

In cases where monitoring identifies effects that are unknown or difficult to clearly attribute, the management framework provides the capacity to identify and progress research priorities. This may involve collaboration between the regulator, industry and researchers.

The outcomes of monitoring, compliance reporting and research can then be used to inform the refinement of the program.

## **Water quality management framework**

Stressors that may affect water quality include nutrient loading and dissolved oxygen depletion associated with fish metabolic processes, respiration and biogeochemical processes within organically enriched sediments.

Management objectives and indicators specific to water quality are defined in relevant management controls and environmental licence conditions and prescribe ongoing monitoring and reporting requirements.

As with benthic monitoring surveys, water quality monitoring surveys may be subject to audit by the EPA. Geo-referencing and reporting protocols are in effect to ensure data is collected from prescribed locations. Original laboratory reports must be supplied to the regulator and must satisfy specified quality assurance/quality control requirements.

In conjunction with the monitoring, relevant information on feed inputs (used to derive nitrogen emission figures) and biomass must be reported pursuant to licence conditions and this information is assessed by DPIPWE and the EPA against specified criteria, aligned with relevant management objectives. The outcomes of these assessments are then communicated to relevant stakeholders.

Should monitoring identify effects that are unexpected or difficult to clearly attribute to marine farming activities, the management framework provides for a range of management responses.

These could range from the implementation of controls on nitrogen emissions (for example the limits that have been imposed for the D'Entrecasteaux Channel and Huon River Marine Farming Development Plan area) to more focused monitoring and research. This may involve collaboration between the regulator, industry and researchers.

## **Land Use Planning and Approvals Act 1993**

The *Land Use Planning Approvals Act 1993* (LUPAA) has provision for the assessment and approval of development activities in accordance with the relevant planning scheme that is in force at the time of the development.

LUPAA gives authority to Local Government to impose environmental conditions through permits that are attached to land titles. The permit conditions may be enforced by Council or the Environment Protection Authority depending on the nature and scale of the activity.

Activities that are defined as level 2 activities in Schedule 2 of the *Environmental Management and Pollution Control Act 1994* are required by LUPAA to be referred to the Board of the Environment Protection Authority for environmental impact assessment and will be regulated by the independent, Director of the Environment Protection Authority when the activity is in operation.

## **Commonwealth legislation**

Any person undertaking marine or freshwater farming activities is subject to the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EPBC Act requires that a person must not take an action that has, will have, or is likely to have a significant impact on any matter

of national environmental significance (as defined by the EPBC Act) without the approval of the Minister administering that Act.

A person intending to undertake fish farming activities who considers that these activities are likely to have a significant impact on a matter of national environmental significance must refer the action to the Minister administering the EPBC Act for consideration.

Proponents of marine farming developments are notified by DPIPW of the prescriptions of the EPBC Act when development proposals are presented to the Department and when marine farming leases are granted.

It should be noted that a marine farming lease must be granted to a proponent before any action can be undertaken and hence any referral made to the Minister administering the EPBC Act.

In some cases, DPIPW has assisted and/or facilitated referrals by marine farming proponents to the Commonwealth. An example of this was the expansion of marine farming in Macquarie Harbour in 2012.

## Conclusion

The Tasmanian Salmonid industry is a highly regulated sector that is subject to a comprehensive planning process and an operational adaptive monitoring program, which is arguably world's best practice, that ensures sustainable development and growth.

The industry is regulated by both Government Departments and the independent Environment Protection Authority.

The *Salmon Plan* provides a new approach that is creating an environment for growth by ensuring that access to natural resources is on terms that encourage world's best standards of environmentally sustainable finfish farming practices, supports research and development and innovation and improves biosecurity, while facilitating a robust, appropriately resourced planning and regulatory system.

It also provides certainty to the Tasmanian community about where salmonid farming can and cannot occur in State waters.

Assessment of the environmental sustainability of salmon farmed operations is based on expert scientific knowledge established by the Institute for Marine and Antarctic Studies (IMAS) and Commonwealth Scientific and Industrial Research Organisation (CSIRO) since the late 1990's. The industry is subject to significant research effort that has investigated both the near-field and broad-scale environmental impacts of the industry as it has grown.

The combination of management controls in marine farming development plans, and licence conditions contained in marine farming licences issued under the LMRMA and environmental licences issued under EPMCA, provides a strong regulatory environment that will allow the industry to be adaptively managed into the future, in a manner that ensures environmentally sustainable development.



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