



*Petuna*<sup>™</sup>  
BY PETER & UNA ROCKLIFF



Mr Stuart Wright  
Inquiry Secretary  
Parliament House  
HOBART 7000  
Email: [finfish@parliament.tas.gov.au](mailto:finfish@parliament.tas.gov.au)

Dear Mr Wright,

**RE: LEGISLATIVE COUNCIL SESSIONAL COMMITTEE GOVERNMENT ADMINISTRATION A -  
FIN FISH FARMING IN TASMANIA INQUIRY**

The Tasmanian Salmonid Growers Association (TSGA) welcomes the opportunity to once again demonstrate the industry's transparency. In June this year, the TSGA participated in a briefing to all members of the Legislative Council at which all members offered to provide any information required, at any time.

This submission has been jointly prepared by TSGA and its members—Huon Aquaculture, Petuna and Tassal—in response to a determination by the Government Administration Committee A to establish an Inquiry into, and report on, the planning, assessment, operation and regulation of finfish farming in Tasmania.

The salmonid farming industry is a considerable contributor to Tasmania's economy and community, and warrants reasonable, appropriate policy, regulation and planning that is informed by the best science.

However, it is not by chance that this industry has grown to a value of \$1 billion in just three decades—our industry has been forged by hardworking Tasmanians, willing to take a chance and invest, not only for their own betterment, but for the long-term benefit of their communities and the next generation.

This submission addresses relevant aspects of the Terms of Reference and highlights a number of key points including:

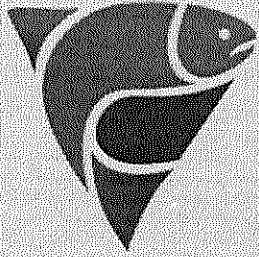
- Our significant investment in, and commitment to, rural and regional communities;
- Our ongoing commitment to, and significant investment in, research and monitoring programs, as well as continuous improvement;
- Our continuous commitment and efforts to engage with our communities to resolve matters around our operations;
- How we are contributing to better management of wild fish stocks; and
- Our care for the welfare of the fish being farmed and our interactions with wildlife.

As an open invitation, the TSGA extends an opportunity to the Committee to undertake a farm visit at any of the state-wide farm sites leased by our members.

Chris Dockray  
Chair, TSGA

28 November 2019

**TSGA**



TASMANIAN SALMON GROWERS  
ASSOCIATION SUBMISSION

**LEGISLATIVE COUNCIL**

FIN FISH FARMING  
INQUIRY

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## EXECUTIVE SUMMARY

### Salmon Industry Support for Regional Tasmania

The importance of regional Tasmania to the salmonid industry cannot be underestimated. Collectively, the three companies directly employ more than 2,300 Tasmanians in addition to thousands of contractors, suppliers and businesses who each benefit from this \$1 billion industry. The Tasmanian Government's own figures provide evidence that the growth in Tasmania's agri-food value is due to the salmonid industry, demonstrating the need for continual legislative and regulatory support for our industry to allow growth. In comparison, the abalone industry has an economic yield of \$91 million per annum (and employs around 170 people) while the rock lobster industry's yield is \$99 million (FTE approx. 390), as reported in the *Tasmanian Agri-Food Scorecard 2017-18 page 2* and *IMAS Economic and Social Assessment of Tasmanian Fisheries 2016-17*.

Every member of the Legislative Council will know at least one salmon industry employee; collectively, these same employees earned more than \$120 million in the past 12 months while the companies paid more than \$10 million in payroll tax to the Tasmanian Government. Our highly qualified, talented people are passionate about this state and their communities, which is why they chose to develop their careers in Tasmania, raise and educate their families and participate in community activities in rural and regional towns. They spend their salaries here, paying personal income tax, which is returned to Tasmania in the millions, and also support the local fire brigade, the Lions Club and the next generation of athletes (like so many people in regional Tasmania do).

The industry invests heavily in Tasmanian suppliers—from transport companies to clothing manufacturers, to local trades businesses and the school canteen. In the past five years, our members have collectively spent more than \$1 billion purchasing goods and services from Tasmanian businesses, from your neighbour (the plumber), to your daughter's footy coach (who drives the fuel truck), to the café down the road.

In addition, the industry annually donates hundreds of thousands of dollars through community grant schemes and small sponsorships that go directly to regional grassroots community groups that work hard to build capacity and resilience in their towns.

□

As fierce brand ambassadors, our members also support many regional and state food and beverage shows, promote Tasmania across the globe and are proud members of Brand Tasmania.

Our members are proud that Tasmania is finally being recognised not as a backwater state, but as leaders in sustainable food production and for that matter, at the forefront of innovative salmon farming globally.

The salmonid industry offers much more than economic contribution (which it does in spades)—it offers our rural communities a lifeline, meaningful employment opportunities, sustainable and ethical food production, and the chance for our bright young minds to stay in Tasmania. All of which can only be good for the future of our state.

### We are highly regulated

Our industry operates responsibly throughout Tasmanian regional communities and waterways in accordance with a diverse set of more than 70 federal and state government legislation; regulations; hundreds of licence conditions; multiple company policies and practices; and third-party accreditations that go above and beyond the regulatory setting.

These regulations protect the environment; support sustainable development; give effect to obligations under international conventions and treaties; implement specific national or state priorities; manage and prevent biosecurity risks; secure aquatic animal health; ensure food safety; open market access and trade; and responsibly define domestic aquaculture production.



These regulations provide certainty for companies for investment and also set the benchmark for the regulators and public expectations, which the industry expects.

We acknowledge the need for these environmental and food safety standards to ensure product integrity and that aquatic environments maintain ecosystem functionality and integrity. Strict food health standards also apply to our products.

We also operate in an environment framed by an aquaculture industry-specific federal policy setting, with associated targets for growth and diversification, as well as a state government planning and political setting. While the Tasmanian regulatory setting for marine farming has faced significant reforms in recent years, its success in driving growth has not yet been tested.

Like all Tasmanians, we also want to ensure the regulatory systems are effective, efficient and deliver benefits to the community. We seek an approach to regulation that is sound and consistent with other regulators, and where upon officers and the leadership team are skilled and committed to become a 'modern best practice' regulator.

Tasmania's salmon industry is committed to transparency.

Under licence conditions, we report regularly on important environmental and stock-associated parameters and conditions, so regulators can ensure compliance but also monitor trends, undertake analysis and develop a data bank for future research.

Our members have invited and hosted countless decision makers, law makers, and community members to our farms, hatcheries and processing plants. Indeed, members of this Committee were part of a tour group that visited at least one site from all three companies earlier this year.

Our industry does not shy away from scrutiny and we have taken it upon ourselves to go above and beyond in demonstrating our commitment to sustainable farming in Tasmania.

### **We are good neighbours**

As we have highlighted, our members operate in regional towns throughout Tasmania and we understand the importance of being a good neighbour when on land and on the water.

We know that to continue to be an industry that is widely supported by Tasmanians, we need to continue to be the best custodians of the environment in which we operate, how we can continue to lock in jobs for Tasmanians and how we can ensure our industry is strong and stable, allowing associated businesses to thrive.

As an industry, we are always listening, building upon our successes and learning from our challenges as we work with communities through formal and informal interaction and engagement programs.

Listening to our communities not only informs us of issues we may not be aware of, but is also driving adaptation, transparency and accountability.

Our contribution to the community goes well beyond providing a pay cheque. Over the past five years, our industry has contributed millions of dollars in community partnerships and grants that extend into our communities. Our industry isn't just defined by three companies, it also includes Tasmanian businesses employing Tasmanian people, and as such we have always been conscious of giving back to our local communities.

Refer to the websites and social media profiles of each company to read about our community support, which is not always about cash but rather discrete, foundational and transformative support such as in-kind graphic design skills for a community calendar, staff to serve at a fundraising BBQ, replanting riparian areas along the Huon River.

We are focussed on supporting Tasmanian communities because we know when they are strong, our businesses are also strong.



We are also often the first to help other waterway users who get into trouble.

The ocean is our office, and as such we spend more time on the water than many other users of the marine environment. We are a frontline workforce, adaptable to the changing marine environment and responsive to community concerns and questions.

Tasmania's salmonid industry continues to work to reduce the amount of marine debris that enters the environment in which we operate. Not only are we bound by our legal obligations to prevent debris from leaving our farming operations and entering the marine environment, but we have also established an industry code of practice as we work towards zero instances of marine debris originating from any of our farming operations.

In fact, to increase reporting of marine debris, we have developed a hotline and easy to use smartphone app to enable more members of the community to report instances of marine debris. We will even collect the debris even if it didn't originate from any of our operations.

As an industry we are always striving to look after the environment in which we operate in and ensure our impact on the marine wildlife is minimal. Our companies have a focus on continuous improvement – including mitigating wildlife interactions with an aim to eliminate impacts on our fish and keep our people safe, while reducing interactions.

### **Salmonid Industry supports wild fisheries**

Likewise, it is critical that Tasmania does not repeat the experiences of other countries, where poor biosecurity practices and rapid industry growth combined to cause catastrophic industry collapse, primarily due to the uncontrolled spread of fish diseases.

As wild fish stocks around the globe continue to be over-exploited, there is mounting pressure on aquaculture to help meet global demand for healthy protein. It is for that reason the World Wildlife Fund (WWF) has asked that the salmonid industry be given a fair go to play its vital role in saving wild fisheries and in feeding a growing population. The WWF has publicly urged Australians to consider the broader benefits of expanding aquaculture, warning that without it the world will fail to sustainably feed a growing global population.

In 2006, wild fish production delivered 64.5 million metric tonnes of product a year. By 2030, that is predicted to fall by 10 per cent to 58.2 million metric tonnes. At the same time, aquaculture production is expected to grow by 99.8 per cent, from 47.2 million metric tonnes to 93.6 million metric tonnes. This is a dramatic measure of the growing importance of aquaculture in providing food for the world. That reality is destined to become even more pronounced as wild fish stocks further decline and demand for healthy protein continues to rise.

In Tasmania, the historic over-fishing of species such as scallops, rock lobster, couta, abalone and orange roughy resulted in strict management controls supported by stock monitoring, research and innovation. However, consumer demand keeps rising in Tasmania, just as it is around the world. There's a similar trend in all other forms of primary food production.

The challenge for Tasmania's aquaculture industry is to apply science, research and innovation to maximise production while always striving to improve the industry's impact on its host waterways. The answer lies in genuine collaboration between producers, the observance of science as opposed to rhetoric, and the application of science-based and independent oversight by the EPA. These are the principles that underpin the development and management of the Tasmanian aquaculture industry.

Tasmania is an ideal location for carefully managed and controlled aquaculture production. All three companies involved are committed to achieving best practice in their operations—not simply because it is what the community expects and demands, and rightly so, but also because it makes business sense.



### **An industry supported by research and monitoring**

The Committee would be aware that Tasmanian waters, and the operations of the salmonid industry, have been, and continue to be, extensively researched and monitored by world-class scientific organisations. Every year the industry spends millions in research and development, investing in the expertise of local scientists at Institute of Marine and Antarctic Studies (IMAS) and Commonwealth Scientific and Industrial Research Organisation (CSIRO), as well as other highly respected national and international research and development organisations.

Future planning of Tasmania's salmonid industry is predicated on an ongoing, precautionary approach underpinned by science from independent experts, as well as other non-government organisations/third parties who either exercise an oversight role, run their own monitoring programs or coordinate other relevant research activities.

The Committee is encouraged to refer directly to these numerous third-party sources for evidence on the world class fisheries and aquaculture research carried out on the activities of the salmonid industry.

#### **➤ CSIRO and IMAS**

In relation to Storm Bay (a focus of this inquiry), the CSIRO—Australia's world-renowned national science research agency, began its research history in Storm Bay with a water quality study performed between 1985 and 1989. This work recently continued, with further extensive studies using a state-of-the-art underwater glider, collecting data including temperature, salinity and nutrient levels. CSIRO also operates part of the Integrated Marine Observation System, which provides a wide variety of data about Australian waters for use by the science community.

CONNIE3 is a modelling tool developed by CSIRO that predicts the movement of almost any substance in the ocean. Already used globally, it has direct application to the aquaculture industry, modelling movement and dispersal of organic material in the ocean.

From 2009-15, IMAS performed a similar study to CSIRO's 1985-89 work, and continue to run a wide variety of programs monitoring the Tasmanian marine environment; which has been used, and will continue to be used, by the regulator and authorities to inform the Tasmanian Government's Salmon Growth Plan.

From the first point of introduction into Australia in the 1960s, IMAS scientists have been helping to address the many challenges of salmon farming. This has led to innovative science and ongoing monitoring, to provide data that can improve the industry's sustainability while informing government, industry and the community.

#### **➤ Engagement with the Fisheries Research and Development Corporation (FRDC)**

The industry's relationship with FRDC has generated hugely positive outcomes. For example, the research, development and commercialisation of vaccines have been critical to industry in reducing animal welfare impacts associated with a number of diseases.

As a result, vaccines have also markedly reduced the need to use antibiotics and consequently minimised the potential for build-up of antimicrobial resistance.

This need is quite unique to the Tasmanian industry. Overseas, commercial vaccines are readily available off the shelf to the salmon farming industry. Large multinational vaccine companies undertake most of the research and development in-house and largely independent of the salmon industry itself.



However, due to Australia's strict quarantine laws, which are important in maintaining our relative disease freedom, it has not been possible for the Tasmanian industry to import overseas vaccines and, given the different disease organisms present and the relatively small volumes of vaccine required by global standards, vaccine manufacture and supply within Australia has not been seen as commercially viable.

Not only have a number of very successful commercial vaccines been developed, the facilities and staff at the Centre of Excellence for Aquatic Animal Health and Vaccines in Launceston are of international standard.

In addition, a suite of approved FRDC research (from both CSIRO and IMAS) is well underway continuously informing the expansion in Storm Bay. The research suite includes:

- Hydrodynamic and biogeochemical modelling and monitoring (led by CSIRO)—FRDC Project 2017-215
- Decision support tools (led by CSIRO)—FRDC Project 2018
- Observational and monitoring program design, implementation and evaluation (led by IMAS).

In addition to the suite of three projects above there is a large Governance Project—FRDC Project 2018-103 all of which contributes to scientifically robust information and predictive tools.

<https://www.frdc.com.au/research/current-projects>

#### ➤ Company Specific R&D

**Petuna Aquaculture** is spearheading a ground-breaking research program designed to breed physically advanced Atlantic salmon and rainbow trout which can withstand the impact of climate change on sea temperature and oxygen levels. The program is based on the principle of selective breeding, which is an age-old practice used by farmers through the centuries. Today, however, the industry has the benefit of access to vastly improved breeding techniques, high-tech equipment, sophisticated data software and teams of specialists, which delivers far more precise results during the breeding process.

In embarking on this breeding program, Petuna, like the other companies undertaking similar research, have been prompted by the environmental challenges the industry continues to face across marine grow-out sites (low salinity, low oxygen and elevated summer temperatures). The aim is to breed fish that can happily thrive in sea farms under a range of different conditions, which is an important objective as the industry ventures further out to sea and as prevailing weather conditions continue to be affected by climate change.

However, this sort of challenge is not specific to the aquaculture industry. It affects all types of primary production, from fruit growers and livestock producers, to beekeepers and viticulturalists. As weather patterns become increasingly extreme, the need to take counter measures becomes more urgent. The industry's investment in selective breeding programs provides a pathway to further improving the quality of Tasmanian-grown Atlantic salmon and ocean trout, which are already recognised internationally as amongst the very finest in the world.

**Huon Aquaculture** is a partner in the Experimental Aquaculture Facility (EAF), a world-class research facility which opened in October 2015. Began as a partnership between Huon Aquaculture, Skretting, the University of Tasmania's Institute for Marine and Antarctic Studies, and the Tasmanian and Australian governments, the \$6.5 million facility is located at IMAS's Taroona fisheries and aquaculture research centre, and is the first of its kind in the Southern Hemisphere.

The primary purpose of the EAF is to provide specialist research facilities to support the growth and sustainability of the salmonid industry. Tasmania's salmon farming is by far the largest aquaculture industry in Australia, and accounts for the bulk of seafood production in Tasmania.



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The partnership between industry and IMAS researchers allows us to address local needs as well as global questions about climate change effects, seafood quality, replacement of marine ingredients and Amoebic Gill Disease. The EAF is advancing the understanding of Tasmania's aquaculture industry (mainly salmon and oysters) by addressing issues of animal physiology, genetics, health, nutrition, welfare and production, environmental management, food safety and climate change impacts.

The EAF is a key component in the industry's strategic future, providing a research capability that underpins growth, sustainability and the ability to adapt to a changing environment of increasing sea water temperatures. For salmon farmers, this facility is already delivering improved environmental benefits through:

- Furthering research into Amoebic Gill Disease management;
- Reducing the environmental impact of salmonid farming;
- Reducing the fish losses due to high sea water temperatures; and
- Maintaining size of fish during extreme high temperatures.

**Tassal** is a lead partner in the recently announced \$329 million Blue Economy CRC, which is the highest value CRC in history, unlocking \$70 million of Commonwealth funding and is driving research innovation in the area of offshore, high energy salmon farming through facilitating research partnerships over the next 10 years on the most exposed finfish aquaculture site in the world.

Tassal also partnered with IMAS, Deakin University and Spring Bay Seafoods to develop the three year, \$5 million CRC-p research program to develop kelp culture and investigate the feasibility of IMTA in Tasmania.

Our eco-aquaculture program is an Australian first and works towards reducing the environmental impact of salmon farming through the growth of shared species in shared spaces – including salmon, mussels, native oysters and seaweed. This program continues to perform above expectations and is helping to restore some of the more than 95 per cent of giant kelp forests destroyed along Tasmania's East Coast as a result of climate change.

Tassal continues to develop and support long term partnerships with research providers including CSIRO, IMAS, Deakin University and University of the Sunshine Coast.

Tassal is also proud to have taken a lead role in the development and management of the Tasmanian industry's world class selective breeding program operated by SALTAS, and its associated 15 years of award-winning applied research in collaboration with CSIRO.