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Dear Ms Albert

Early consultation on Tasmania's 10-year Salmon Plan

Thank you for the opportunity to provide early feedback on the Tasmanian Government's 10-year Salmon Plan (the Plan). We are pleased that the welfare of farmed Atlantic salmon is being considered in Tasmania's long-term planning.

The RSPCA is Australia's most trusted animal welfare charity. We have worked alongside government and policy makers for more than 150 years to improve animal welfare in Australia through contemporary animal welfare science. Today, there is significant scientific evidence highlighting that fish are sentient animals capable of experiencing pain and suffering.

We advocate that Tasmanian farmed Atlantic salmon be treated humanely and that any industry practices with potential to cause them pain, injury or suffering should be avoided. Commitment to continuous improvement in salmon welfare should also feature in the Plan to facilitate ongoing regulatory improvements that better reflect contemporary animal welfare science. Importantly, further research is required across numerous areas to guide continuous improvement.

Factoring in the improvement and protection of the welfare of salmon will assist the Tasmanian government in adequately reflecting the expectations of the general public. It will also mitigate the reputational risks associated with any unethical or unsustainable farming practices. Conversely, compromising animal welfare for regulatory efficiency and revenue will expose Tasmania and its salmon industry to reputational damage, erosion of the industry's social license to operate, and a decline in consumer trust both locally and in our overseas markets.

Please find our response on the following pages to the specific questions you provided. We look forward to continuing to be part of the consultation process, and welcome questions or the opportunity to meet to discuss in the meantime.

Yours sincerely



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Tasmanian Government - Early consultation 10-year Salmon Plan

RSPCA Australia and RSPCA Tasmania submission

Thinking about the Government's vision for our sustainable salmon industry to remain world leading, and which continues to support Tasmanian jobs and businesses across the supply chain, what are some of the key issues you believe are facing the industry to achieve this?

- Ensuring the welfare of farmed salmon.
- Ensuring wildlife are not adversely impacted by salmon farming operations.
- Ensuring salmon aquaculture is environmentally sustainable through transparent, robust and effective regulation of the planning process, effective monitoring of environmental impact and effective enforcement to ensure ongoing compliance with regulations.

Thinking about the [four guiding principles](#) informing the development of the new 10-Year Salmon Plan, do you think they will support delivery of social, economic and environmental outcomes that will be in the best interests of Tasmania moving forward, and what are your early 'future thinking' ideas that could be explored as short to long term actions in the new 10-Year Salmon Plan?

1. There will be no net increase in leased farming areas in Tasmanian waters

Lease farming areas subject to regular/ongoing suboptimal water temperatures, low water quality and poor water flow impacting fish welfare should be discontinued.

2. Innovation - future growth lies in land-based and off-shore salmon farming

Land-based aquaculture - there are potentially significant fish welfare implications that must be recognised and managed in raising fish to heavier weights in tanks in recirculating aquaculture systems before (or potentially without) transfer to seawater, e.g. issues relating to higher stocking density, fin damage, aggression. It is recognised that the system allows a fully controlled, optimal environment (e.g. water quality and water flow) to be provided to fish where they can be safeguarded from disease (e.g. no requirement for AGD bathing) and predation (e.g., no need to manage seals and other wildlife).

Off-shore aquaculture - need to consider the fish welfare implications of raising fish to slaughter weight in off-shore, deep, high-energy waters. For example, the ability to respond to problems and meet the animals' needs in a timely manner is reduced, particularly at times when managerial oversight is important, e.g. during bad weather. Consideration needs to be given to interaction with wildlife (whales, etc) as well as potential animal welfare issues relating to the salmon, e.g. fish ability to cope with strong currents and high waves, control their position in the water, and ability to rest.

3. World-best practice through continuous improvement

This principle should cover continuous improvement in its broadest possible sense, not just continuous improvement in regulation and transparency. It should cover continuous improvement in fish farming practices.

Implementation of all the recommendations in the Parliament of Tasmania sub-committee report on fin fish farming in Tasmania will be an important step in demonstrating continuous improvement.

4. Strict independent regulation

Implementation of the relevant recommendations in the Parliament of Tasmania sub-committee report on fin fish farming in Tasmania will be a crucial step in demonstrating independent regulation.

*Separate to the 2022 Tasmanian Salmon Symposium covering international best practice, research and developments in offshore and associated marine farming systems, and related social, economic and environmental issues, and thinking about future policy for the sustainable growth and continuous improvement of the salmon industry, **are there good industry examples of best practice or innovations we can learn from? And are there any other gaps or areas for improvement in our knowledge to help inform the plan and policy development?***

- Assessment and approval of marine farming development plans to consider fish welfare implications in the allocation of new leases for fish farming, i.e. environmental assessment and an animal welfare assessment.
- Development of comprehensive fish welfare assessment protocol e.g. as per the Salmon Welfare Index Model to set a benchmark and allow for regular assessment of continuous improvement (see <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1753-5131.2012.01083.x> and <https://www.ingentaconnect.com/contentone/ufaw/aw/2016/00000025/00000001/art00014>).
- Development of Australian Animal Welfare Standards and Guidelines for farmed Atlantic salmon to underpin regulation of fish welfare in salmon aquaculture (see <https://www.animalwelfarestandards.net.au/>) with standards modelled on the RSPCA Approved Farming Scheme Standard for farmed Atlantic salmon (see <https://rspcaapproved.org.au/become-certified/standards/>) and covering the entire lifecycle from hatchery to slaughter.
- Comprehensive and regular (including real-time) online publication of independently verified information relevant to environment and fish care, perhaps expanding <https://salmonfarming.nre.tas.gov.au/> to include for e.g. water temperature, dissolved oxygen, antibiotic usage, seal deterrent usage, kilogram wild fish (in fish meal and fish oil) to kilogram farmed salmon body weight (FIFO) ratio.
- Explore the benefits to industry stakeholders, trading partners and the community of developing of an aquaculture sustainability framework (see e.g. <https://www.dairy.com.au/sustainability> and <https://www.sustainableaustralianbeef.com.au/>).

- Alignment of Tasmanian salmon farming practices with internationally recognised certification for responsible salmon farming (e.g. ASC, including their future fish welfare standards). See https://www.asc-aqua.org/wp-content/uploads/2019/11/ASC-Salmon-Audit-Manual_v1.3.pdf and <https://www.asc-aqua.org/programme-improvements/fish-welfare/>.
- Any alignment of Tasmania's 10-year salmon plan with the National Aquaculture Strategy should not result in compromise to good environmental management practices in favour of reducing burden on business, as outlined in that Strategy (see <https://www.awe.gov.au/agriculture-land/fisheries/aquaculture/national-aquaculture-strategy>). Noting also that the National Aquaculture Strategy does not make any mention of fish welfare, presenting an opportunity for Tasmania's 10-year salmon plan to lead on this material issue for the industry.

Further research/work is warranted in numerous areas, including:

- Triploids - further understanding of the fish welfare implications of using triploids if these are to remain part of the industry in Tasmania.
- Triploids - breeding techniques that address deformities and skeletal problems, i.e. improve the process, as well as selective breeding and husbandry strategies to remove the requirement for triploids.
- Seals - alternatives to current deterrent devices.
- Seals - impact of devices on seals and other marine life, including the salmon themselves, e.g. hearing and effects of particle motion.
- Seals - feasibility of mandating pen design, especially predator netting design and management (e.g. 'fortress' pens and nets).
- AGD - best practice management and further research, e.g. into breeding for resistance, vaccines.
- RAS - fish welfare assessment of recirculating aquaculture systems.
- Off-shore farming - fish welfare impact.
- Community trust - benchmarking and regular surveys.
- Environmental enrichment - exploration of suitable and effective environmental enrichment for freshwater and marine phases of production.
- Lighting - understanding fish preference and impact of artificial lighting and the welfare implications of long periods of continuous lighting.
- Stocking density - optimal stocking density in the Tasmanian context for both freshwater (RAS) and marine phases.
- Impact on other fish - control/ management (reduce/remove) of non-salmonids in pens and killed during AGD bathing and other handling procedures.
- Routine and active surveillance by regulator on emerging infectious disease.
- Mandatory welfare-specific courses/training for all fish farm workers.
- Pre-slaughter handling and effects on welfare (and meat quality) - especially during crowding and pumping.
- Selective breeding for thermal tolerances, i.e. warming water.
- Selective breeding for stress resistance.