

To Whom it May Concern

The Tasmanian Independent Science Council thanks you for the opportunity to provide feedback on the ***Discussion Paper: Towards a 10-year Salmon Plan (July 2022)***. We note that the Discussion Paper is largely a collection of ideas, issues and questions loosely organised under the themes of 'Protection', 'Participation' and 'Progress'. Given the anticipated short time-frame for completion of the Plan (January 2023), it is disappointing that there is no indication provided of the likely structure of the Plan, overall objectives or strategies. Who will write it and ultimately approve it?

It is unclear how a detailed response to the specified 19 questions will better inform the draft 10-year plan, so we have opted to take a more generalised approach.

The Paper continues to adhere to the Government's original principles that we believe are seriously flawed and have never been supported by the wider community. We strongly recommend that these be revised, taking into account the feedback provided to date.

In particular, the first principle *'There will be no net increase in leased farming areas in Tasmanian waters'* does not provide clear limits on production, pollution or other damage to coastal systems as there are no consistent lease-, region- or state-wide limits on biomass and/or nutrient loading. Many existing leases can (and are) still being expanded further through the addition of more and/or larger cages; unused leases are still available for production; and areas currently under exploration are apparently still included. Furthermore, the inclusion of the word 'net' implies that leases with poor performance could be transferred elsewhere. In summary, major increases in production are still entirely possible (and have been occurring throughout the so-called moratorium) without increasing the net lease area. We strongly recommend that a genuine moratorium on actual production be implemented until the necessary controls are in place to protect the environment, manage biosecurity risks and ensure social license.

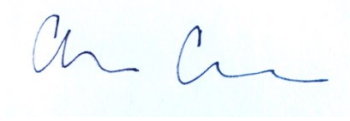
Serious consideration of land-based, fully-recirculation production systems needs to be included in the 10-year plan, along with incentives to drive this. The discussion paper appears to dismiss this, other than for the production of larger-sized smolt to stock continued nearshore and potential offshore production. Large-scale, land-based RAS is happening globally and is likely to replace sea pen production in many parts of the world in the not-to-distant future. Tasmania can either use our natural advantages to compete in this space (e.g. renewable energy, established systems and workforce, land and freshwater resources), or miss the opportunity. At a minimum, a genuine, unbiased investigation of RAS opportunities must be included as part of the 10-year plan.

The Discussion Paper notes the need for full cost recovery, and even hints at the possibility of additional financial contributions to the Tasmanian economy in the form of 'rents'. While there is some discussion of the various types of support currently provided to the industry (research, regulation, training, infrastructure, trade, etc) and the income/benefits received (fees, employment, etc), this requires a much more detailed economic analysis. For example, the paper notes that in 2020, there was only partial cost-recovery, but no details are provided. We strongly support a full cost-recovery model, as well as fair and substantial rents for the use of Tasmania's natural resources and infrastructure.

Finally, we are concerned that the very short timelines allowed for the development of the 10-year plan will not allow for full consideration and integration of the numerous reviews, standards and legislative instruments that have only recently been released or are currently in progress. Until and unless this is done, we have serious concerns that this will turn into another 'box-ticking' consultation process. Having provided 'early response' input on the 10 Year Plan in May of this year – both in person and in writing – it would be extremely disappointing if our recommendations – as well as those of many thoughtful organisations and individuals across the state – are not incorporated into the final plan.

Please find attached a summary of the TISC's concerns and recommended actions for inclusion in the draft 10-year Plan. We would be happy to discuss these points in greater detail if this would be helpful.

Sincerely

A handwritten signature in blue ink, appearing to read 'Christine Coughanowr', is centered on a light blue rectangular background.

Christine Coughanowr, on behalf of the Tasmanian Independent Science Council

Enclosures:

- TISC Recommendations: Part A
- TISC Recommendations: Part B (socio-economic focus)

10 YEAR SALMON PLAN RECOMMENDATIONS: PART A

The Tasmanian Independent Science Council (TISC) offers the following general response to the Tasmanian Government's Discussion Paper: Towards a 10 Year Salmon Plan (30 Aug 2022)

As a basis for meaningful and informed consultation, the TISC seeks answers to the following *questions*:

- The Government's **vision and guiding principles are seriously flawed**, and we see no reason to use these as a basis to frame our input. Many aspects are open to interpretation (e.g. 'no net increase' and 'moratorium'), enabling industry to carry on with both business-as-usual and planned expansion. ***Will these principles be modified, taking into account the feedback received through the consultation process?*** We have drafted some initial wording around alternative vision and principles below that could be a useful starting point.
- There have been **multiple external reviews** conducted over the past 2-3 years that must inform this debate, which have only been **recently (or not yet) released to the public**. These include the final report from the Legislative Council Inquiry, the Cawthorn Institute review of international salmon legislation and the Scottish Association for Marine Science BEMP reviews for three marine farming regions. Other important guidelines and legislation is also missing in action (e.g. Environmental, Biosecurity and Operational Guidelines, *Environment Legislation - Miscellaneous Amendments Bill 2019*, *Living Marine Resources Management Act 1995*). ***How can the findings of these reviews and changes to legislation be incorporated into the 10-year Plan at such short notice?***
- The **timelines are far too short** for any meaningful consultation if the intent is still **to implement the new plan from 1 Jan 2023**. ***Is this still the plan?*** If this is a genuine effort to engage with and respond to community concerns, we strongly recommend the timelines be extended – along with a genuine moratorium on any further production on biomass. This moratorium must apply to additional biomass as well as to new lease areas (not 'net lease area').
- ***How will the feedback received be compiled and responded to?*** It is essential that all written input be compiled and published as a public document, not a generic 'high-level summary'.
- ***Who will actually determine what goes into the new 10-year plan? Is there a formal working group tasked with this, and if so, who is on it?***

An Alternative Vision (*needs further work*)

Healthy marine and freshwater environments underpin everything else and must not be degraded by salmon aquaculture operations.

Alternative Guiding Principles (*also need further work/consolidation*)

1. Precautionary principle – current and future production must not exceed carrying capacity, put protected species at risk, or otherwise damage the environment
2. Robust scientific understanding must underpin decision-making and include comprehensive baseline surveys, modelling, monitoring and timely/transparent reporting. This work must be undertaken by unbiased and independent scientists with no direct ties to the industry.
3. Strong & independent regulation is essential
4. Community consultation and support, including provision of regular, timely and transparent information
5. Provides substantial, fair and equitable economic benefits to the state and to affected communities
6. The Plan should Include all aspects of production, including freshwater, well boats and desalination plants.

Key issues

Salmon aquaculture in Tasmania has expanded too far and too fast over the past decade and has overtaken the science and regulatory systems needed to underpin sustainable production. Many are concerned about the visible degradation of coastal ecosystems, impacts on recreational fishing and protected species, noise, lights and visual amenity, marine debris, etc.

Further expansion onshore or offshore requires further planning and investigation (environment, socio-economic), along with clear policy and operational guidelines. This must start with genuine marine spatial planning that incorporates all sectors. Any onshore or offshore expansion should be accompanied by a reduction in coastal operations, starting with those areas most poorly suited to intensive aquaculture.

Other major issues include

- Poor communication and transparency
- Poor community consultation and engagement leading to a lack of trust
- Regulatory standards and systems have not been finalised; regulators are slow/reluctant to act
- Science is largely industry and state government funded (real or perceived bias) and has not caught up with expansion
- Rivers are polluted by flow-through hatcheries and freshwater is extensively used for bathing fish at sea
- Climate change is reducing the viability of salmon farming and there is no clear strategy to address this. Will salmon be replaced by another species (e.g. yellow-tailed kingfish), and what is the implication of this?

Actions needed

1. A genuine moratorium on biomass (not net area) is needed until existing operations have been reviewed and adjusted to ensure sustainable production that does not damage our environment, supports long-term employment and revenues to the state, limits biosecurity risks, etc. We suggest that a period of 3 to 5 years may be needed for this.
2. Destock/reduce biomass levels in nearshore operations, particularly those with limited flushing and/or high ecological values (e.g. Long Bay, areas of Macquarie Harbour, Channel/Huon and Okehampton)
3. Undertake a detailed and unbiased review of both land-based and off-shore production options. If offshore/land-based production is approved, this should be progressed alongside a parallel reduction of nearshore operations
4. Establish an independent funding mechanism to support the science that is needed to underpin genuine sustainable production
5. Scientific investigations are needed to address the following key gaps. This research should be funded by industry:
 - Multi-sector marine spatial planning, including both proposed and existing lease areas, as a basis for future operations
 - Comprehensive baseline surveys as a pre-requisite for new leases and renewals, to be repeated every 5 years.
 - Carrying capacity modelling and setting of precautionary nutrient limits at both lease and regional scales
 - Improved BEMP designs, as per recent independent reviews and other feedback
 - Research, monitoring and management of protected species, including percussive impacts of seal bombs on sensitive, non-target species such as cetaceans, seabirds, handfish and other species.
 - Research, monitoring and management of discharges from freshwater hatcheries, including potential health risks associated with cyanobacterial toxins on drinking water supplies and recreational activities.
 - Predicted impacts of climate change and how this can be managed
6. Obligation to pay for research on impacts — The TISC strongly recommends that the 10-year Salmon plan contain a clause requiring the industry to fund independent research on any new and emerging health and safety impacts on humans or native species, to short-cut the delays inherent in normal funding streams
7. Undertake genuine community consultation, including the provision of regular, timely and transparent information. Annual environmental reports should be prepared for all regions and

presented to the public at an annual workshop. These should include monitoring results, operational context and future plans. The Salmon dashboard tool requires major improvements – ‘compliant’ is not a meaningful indicator, nor is ‘Y/N’ for seal deaths.

8. A fully independent EPA is needed to set standards and to monitor and enforce them. It is unclear how the newly independent EPA is significantly different from the previous version, as it has the same Board, same Director, same staff and appears to be operating under many of the same systems.
9. Regulatory standards must be finalised, and include input provided through this consultation process. Standards should include lease-specific limits on production and more comprehensive monitoring and management criteria (including nuisance algae). Discharges from well-boats and desalination plants should also be regulated by the EPA
10. Unbiased economic assessment of costs and benefits of salmon aquaculture, and how this can be optimised for the benefit of the state and affected local communities. This should include improved financial transparency, an analysis of jobs, implications of continued automation (particularly with offshore production), adequate fees to ensure full cost recovery of management and science, possible auction of production quota/leases, payment of royalties or Gross Product Value fees, payment of Council rates, rehabilitation bonds, etc.
11. Clarity is needed about current and future water requirements for producing and bathing fish, and how these can be provided without adverse impacts on community supplies or the environment
12. All freshwater operations whether for smolt production or full-scale production should be Recirculating Aquaculture Systems (RAS), and clear design criteria must be established to define this.
13. Large-scale flow-through hatcheries should no longer be permitted in Tasmania. A policy and sunset clause are needed to convert current flow-through operations to RAS within no more than 3 years. Flow-through hatcheries that discharge polluted water should no longer benefit from trivial non-consumptive water allocations fees (approximately \$400/year, regardless of the volume used).

10 YEAR SALMON PLAN RECOMMENDATIONS: PART B

The Tasmanian Independent Science Council (TISC) requests that the new 10-year Salmon Plan consider the following socio-economic matters, as part of the TISC submission of 30 August 2022.

A number of issues require urgent attention:

- Transparency regarding the very large taxpayer subsidies used to support the marine farming industry must be improved. Their continuation should be more clearly justified.
- The quantum and design of fees imposed on salmon farmers must be changed.
- Methods for assessing the economic and social impact of the industry require a complete overhaul.

1. *Transparency.*

A recent *Mercury* (13/7/2021) article indicated that ‘The Fisheries Research and Development Corporation alone has directly invested about \$46m worth of research into salmonid aquaculture’. Allowing for ongoing contributions from CSIRO and UTAS – including the recent establishment of the Blue Economy – the current estimate of taxpayer subsidy to research and monitoring of the industry would be **considerably larger** than this. And that doesn’t count the high regulatory costs of borne by elements of the State bureaucracy.

Much of this subsidy is camouflaged under the rubric of ‘public interest research’ when its beneficiary is the profitability of the marine three salmon farmers. If it is public interest research, the source of funding should be completely transparent to the taxpaying public. Subsidies of this order need to be justified.

That needs to change.

2. *Efficient cost recovery.*

The Productivity Commission has recommended that ‘State and Northern Territory Governments should implement best practice cost recovery arrangements for the commercial fisheries sector. Cost recovery charges should be linked as closely as possible to the efficiently-incurred costs of essential regulatory services. All governments should transparently disclose the services or regulatory activities for which costs are recovered, and the amount and extent of costs recovered’.

Important salmon farming fees fall well short of this requirement.

To take one example, an applicant for a Marine Farm Application incurs a fee of \$1212.75, together with the requirement to submit an environmental impact statement. A thorough analysis of the EIS incurs costs to the regulator which are a **very large** multiple of the application fee. Together with other minor fees the total of ‘Marine Farms Fees and Recoveries’ in the 2021-22 budget, which includes annual lease fees, is \$1.274m. The massive difference between the direct regulatory cost on one hand (which includes public administrative processes as well scientific support by IMAS, UTAS and the CSIRO), and the small fees on the other, is a direct subsidy to the industry and should be disclosed as such. The fee bears no relation to the direct regulatory cost. It is not consistent with the Productivity Commission recommendation.

Fees are poorly designed.

Aside for the quantum of the fee, its design is fundamentally flawed. Marine Farm lease fees are based on acreage. Acreage bears little relation to the environmental load on waterways. Acreage takes no account of the volume of fish, or its proximity to other farms. Economic efficiency requires a fee structure addressing these deficiencies. Alignment with the GPV mechanism adopted in other States, together with a substantial increase in fee revenue, could go some way to correcting this problem. A move to a tendering/auction system should also be considered.

3. *Economic and Social impact.*

Clearly, economic and social impact depends on many factors, including some reflected in the so-called 'market economy', and others captured by 'non-market' values.

At present there is no coherent structure for a broad-based evaluation of the salmon industry which takes all these elements into consideration.

On the 'market economy' side, the industry continually exaggerates the number of jobs 'created'. These claims do not stand scrutiny, even on their own terms. But the underlying method is also flawed. Reliance on an input output (I-O) approach to assess the economy-wide 'benefit' of the industry should be discontinued. It focusses on measures such as jobs or contribution to Gross State Product and takes no account of social costs or other non-market effects such as environmental degradation.

The underlying I-O assumption, that resources attracted to the industry have no alternative uses, is clearly wrong. An electrician employed by a salmon grower can't build new homes, for example. Another example is Tassal's refusal to give up its leases at Dover to facilitate a woodchip export terminal. As a result, trucks rumbling through Hobart impose emission and congestion costs.

Recent research by the FRDC (FRDC Project No 2018-068) advocates much more emphasis on non-market valuation to supplement the standard market-based approaches. **This recommendation should be followed.**