

DRAFT FINFISH ENVIRONMENTAL STANDARDS REVIEW

Prepared by the Tasmanian Independent Science Council

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CONTEXT AND PREVIOUS INPUT PROVIDED

Environmental standards for salmon production have been in preparation by the Tasmanian EPA for at least five years. This has been a long and complicated process, and included a review of International Regulations (focussing on monitoring and compliance), that was released as a draft document in Feb 2020. This draft was sent out for independent review by NZ Cawthron Institute and the EPA released a finalised version two years later (July 2022). This Cawthron review itself (June 2020) was not made public but was eventually obtained via a two-step Freedom of Information request by Environmental Defenders Office (March 2023). It is particularly concerning that a number of the recommendations made in the unredacted independent review – including specific recommendations made by the Tasmanian EPA’s own Environmental Standards Working Group – have not been included in the draft Standards.

There are now two sets of Environmental Standards being developed – statutory Environmental Standards prepared by NRE and more detailed, non-statutory Technical Standards by the EPA. It is unclear how these two sets of standards will inter-relate, and in any case the EPA standards are likely to take several more years to finalise. In addition to these standards, there are at least seven related standards, guidelines and other document that have yet to be prepared or finalised. This is a complex and confusing situation, particularly as most of the Environmental Licences for salmon leases in the state are due to expire in September of this year. How is this going to play out?

The Tasmanian Independent Science Council (TISC) has participated in multiple reviews of the Environmental and other salmon-related standards, including a submission on the Environmental Standards Position Paper (June 2022), as well as submissions on the draft Operational and Biosecurity Standards. It appears that few of the concerns raised or recommendations we have made have been adopted, and we attach – again – our submission to the previous Position Paper as part of this submission. Quite frankly, we are wondering if there is any point in providing further input, given the level of effort this entails. However, having scanned the draft Standards, we have identified a number of major concerns that must be highlighted and addressed.

As currently written, the draft Standards appear to provide less environmental protection and less clarity than the existing Environmental Licence conditions. As such, the TISC does not support their adoption without significant revisions.

SUMMARY OF KEY ISSUES:

Too complex for effective implementation

- **Reference sites:** The principle of establishing reference sites, collecting adequate monitoring data and deriving meaningful targets and triggers is fraught with extended delays and scientific arguments. If this approach is to be adopted, some examples should be provided of how/where this might work. Where is a suitable reference site for Macquarie Harbour? The Channel/Huon? Long Bay? A regional gradient approach may be more sensible, particularly for areas with existing operations, or better yet, the use of monitoring data collected as part of a comprehensive baseline survey.
- **Multiple impact zones:** The draft Standards propose to establish five zones within which different standards and criteria will apply – the farm zone (pen bays within lease area), depositional zone (35m from lease), dispersal zone (plus another 100m) and regional zone (yet to be determined). Zone

boundaries are to be set using a combination of arbitrary distances and determinations by the Director. There is no justification given for how these various zones will provide improved environmental outcomes, and we believe that the opposite is likely to occur.

- **Median Benthic Condition Index (MBCI):** This is an important concept for regulation of particulate/organic wastes from farms and will add further complexity as regional differences will need to be incorporated. The MBCI is undefined in the draft, and how it will be established is unclear.
- **Multiple associated standards and guidelines:** much of the detail has been devolved to associated EPA Technical Standards, which will require another 2+ years to produce and are unlikely to be open for public input or scrutiny. Likewise, the draft Operational Standards have not yet been released (nearly 8 months after the submission date closed). Other environmental issues raised in the submissions are being diverted to at least seven other standards, frameworks, and reviews (e.g., Ten Year Salmon Plan; Wildlife Interactions Standard; Freshwater Fish Farming Standard; Audit Framework; Review of Penalties; Review of Fees & Charges, TPDNO Compliance Methodology). The devil is in the detail, and industry is clearly expecting to have input on these. The public should also have an opportunity for input.

Significantly expands allowable footprint of impact

The proposed four zone system – particularly the ‘dispersal’ and regional’ zones would allow for fish farm related impacts to extend considerably beyond the current environmental licence conditions which state *“There must be no significant visual, physio-chemical or biological impacts at or extending beyond 35 metres from the boundary of the Lease Area”*. According to the definitions and discussion, effects from particulate wastes are likely to be measured within the Depositional Zone (35 m from lease boundary), while the Dispersal Zone (135m from lease boundary) can exhibit some measurable impacts from both particulate and dissolved wastes. The Regional Zone (to be determined by Director) is intended to protect seagrass and rocky reefs, but also allows for some measurable impacts to these habitats provided they are not ‘significant’.

This zoning system – particularly the ‘dispersal’ zone – is in direct contradiction to the recommendations made in the (unredacted) Cawthron report, which includes a recommendation from the EPA’s own Environmental Standards Working Group that the current 35 m compliance zone be retained unless operators can demonstrate through detailed modelling and monitoring that an alternative Allowable Zone of Effect (AZE) is acceptable. There is no justification provided for adding this additional ‘dispersal zone’ based on international best practice, and it should not be included in the new standard. Furthermore, proposed monitoring within this zone appears to be minimal at best.

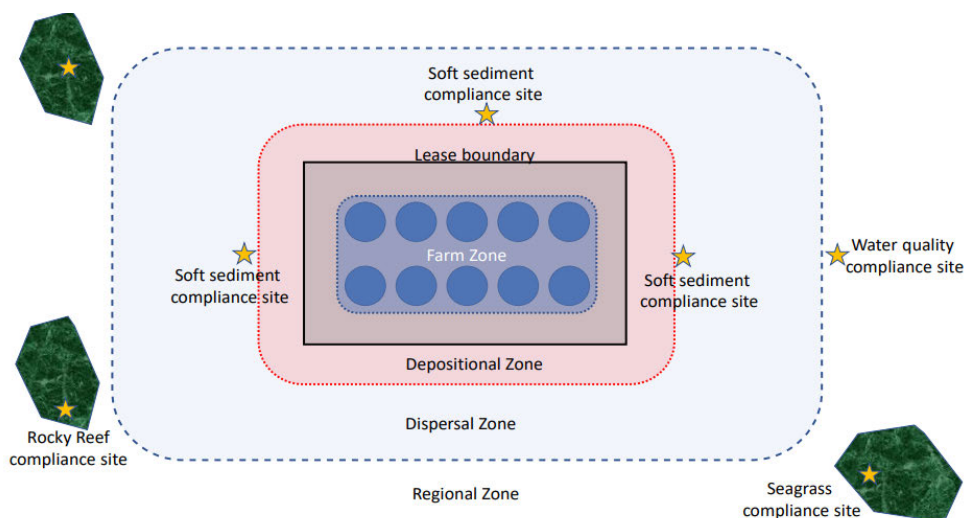


Figure 2: Marine Finfish Farming Management Zones

Source: NRE Explanatory Paper 2023

Major gaps and omissions

There are multiple gaps and omissions in the draft Standards that will apparently be addressed via associated standards that have not yet been released or are still to be developed (see above). Several key issues (e.g. stocking densities, fallowing) are not addressed here at all. These will presumably be covered in the Operational Standards which still have not been released eight months after the consultation period closed.

The issue of salmon escapees is not included here. This needs clear reporting requirements/criteria and an immediate response by industry to capture their escapees. Furthermore, the current recreational fishing limits on escaped salmon (bag limit of 12) should be removed. There should be no limits on capturing escaped salmon – recreational fishers should be encouraged to get them out of the water as quickly as possible before they disperse more widely.

Unclear how standards will apply to existing vs future operations

Some standards appear to apply only to future operations, such as the need for baseline surveys, depositional and nutrient dispersal modelling. Biogeochemical models are apparently only required to be used where they have already been developed. It is essential that existing operations – some of which have expanded hugely over the past 5 years – are subject to the same level of scrutiny and regulation as new leases – not quietly grandfathered in.

As stated in our previous submission, international best practice supports the setting of Maximum Allowable Biomass limits for salmon farms, and Tasmania should take a similar approach by setting caps on maximum biomass, feed inputs and/or dissolved nitrogen for both regions **and individual leases**. This should apply to all operations – both existing and future – and be initially based on rigorous modelling of carrying capacity that takes into account sensitive areas and habitats. These caps should then be fine-tuned following performance monitoring. We do not support the practice of setting caps based on previous practices or ‘adaptive management’ as it has been previously interpreted in Tasmania.

Too much discretion given to the Director, limited Board role and too high a level of Industry involvement

- The Director has major discretionary powers, for example to determine reference sites and values, and delineate regional zones. A lack of clarity in interpreting relative terms such as ‘significant’ or ‘minimal’ impacts or ‘as soon as practicable’ can only lead to ineffectual, disputed environmental management and falls far short of best practice worldwide.
- In contrast, the role of the EPA Board is limited to having “regard to baseline environmental assessments before environmental licences are granted to the holders of the lease”. We would strongly support a broader role for the Board in the review and approval of new leases or significant modifications, as this offers an avenue for deeper consideration and for third party appeals that is currently lacking under the *Marine Farming Planning Act 1995*.
- Industry is given a major role in the development and implementation of key monitoring and management tools, in particular baseline surveys, particulate and dispersion modelling, possible BEMP design, and regional monitoring. It is strongly recommended that the funds to develop and implement regional surveys, models and monitoring be included as part of annual license fees, and that this work be done by the EPA and/or by independent consultants of their choosing. This approach would remove the question of bias and ensure consistency between operators.

Likelihood of extensive delays, uncertainties, and continuation of the status quo

Completion of the draft Environmental Standards is likely to take another 6+ months and will then need to be passed via Parliament (with the possibility of a disallowance). The EPA Technical Standards will take at least another two years to complete. Selection and monitoring of reference sites, and development of

reference values to underpin compliance could easily take another 3 years – so it could be well over 5 years until any systematic change is implemented.

Given this situation, we recommend a pause on further growth in production, and that conservative limits be set within any interim Environmental license condition, until the necessary guidelines, standards, monitoring, compliance and reporting systems have been finalised.

No reporting, review, public scrutiny, or appeal rights

- There is no requirement for regular, public reporting included in the draft Standards. This should be required of both the industry – particularly now that ASIC Annual Reports are no longer produced due to foreign ownership – as well as by the EPA. Reporting must be provided in a regular, timely and transparent manner, and include biomass levels, feed inputs and/or nutrient loads associated with specific regions *and* leases. Reporting should also include monitoring results and visual footage at the 35 m compliance boundary, fish escapes and mortalities, use of antibiotics, etc. ‘Commercial in confidence’ is not an acceptable reason to withhold information when pollutants are discharged into public waterways and is not standard practice in other countries.
- A regular review process and timeline for these standards should be included.
- An opportunity for third-party appeals should be provided.

Other

- Baseline surveys: Some elements of baseline surveys should also apply to emergency leases, e.g. proximity to sensitive habitats and protected species, and this should be done well ahead of any emergency. Clarity is also needed as to what constitutes an ‘emergency’ and how long the lease can be occupied. In any case, emergency leases should only be used as a last resort, after all other options have been exhausted.
- Monitoring requirements (Sec 4.4) are confusing/inconsistent. What is the rationale for the various monitoring requirements in the various zones, and what constitutes signs of overstocking (gas, bacterial mats, feed pellets, polychaetes). Why is there no monitoring required in the dispersal zone? As it stands in these draft Standards, the dispersal zone appears to be an additional, unregulated buffer for finfish farms.
- Why is monitoring of deep reefs specifically included in Sec 4.4. Should not all reef communities be included here?
- The one metre separation between the base of the net and the sea bed is far too close (Sec 5.2). How can this be justified as World’s Best Practice?
- Is the special penalty for exceeding TPDNO limits (\$150,000 per tonne) enough of a deterrence, given the potential profits? (TPNDO Compliance Methodology, p2). This would only represent about half the value of the fish produced, at current market prices. Temporary or permanent loss of lease access could be a more persuasive deterrent.
- Antibiotic use in public waterways must be reported in real time (Section 4.6).

CHANGES AND IMPROVEMENTS TO CURRENT PRACTICES

The draft Standards include a number of changes that could lead to improvements in the current regulatory system, provided that they apply to both existing and future operations. These include:

- Requirements for benthic and nutrient dispersion modelling. Biogeochemical modelling should also be a requirements – not an option - and be clearly be linked to the establishment of carrying capacity assessment and the setting of TPDNO limits.
- Inclusion of a Benthic Condition Index (but is a median value for the entire lease adequate?)

- More explicit attention is given to nutrient dispersal and broader biological impacts (nuisance algae, impacts on reefs and seagrass); however, the standards then allow for larger areas (dispersal zone, regional zone) within which some level of impact is allowable.
- Monitoring to be required at peak production, and this is defined.
- Light impacts are included (but only on nearby communities, not marine life).
- Noise impacts are included, including associated boat traffic, but not on marine life (e.g. acoustic impacts of seal bombs on seals, dolphins, whales and other marine life).
- The proposed waste management plan appears to include biofouling, bathing water and disinfectants (presumably also from well boat operations), but not desalination brines.
- Inclusion of reference sites is positive, in principle, but suitable sites can be very hard to find, and easily disputed. Regional gradients may be more meaningful.

We hope this feedback is useful and will be incorporated within the draft Salmon Environmental Standards. Please contact me if we can provide further advice.

On behalf of the Tasmanian Independent Science Council



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About the Tasmanian Independent Science Council

The Tasmanian Independent Science Council is dedicated to science-based policy reform to ensure the long-term health of Tasmania's environment. The Council includes scientists and professionals who provide independent, non-government advice, focusing on policy reforms of significant State interest. We seek to inform public debate and influence legislative reform to improve outcomes for terrestrial, freshwater and marine ecosystems.

Enclosures:

- TISC Submission on Draft Environmental Standards Position Paper (June 2022)