TISC Review of Draft Standards: *Biosecurity Program: Tasmanian Salmonid Industry*

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The Tasmanian Independent Science Council (TISC) welcomes this opportunity to comment on the draft standards. We note and commend the draft standards for addressing biosecurity risks in all major aspects of operations, including freshwater hatcheries and smolt production, marine grow-out, processing, transportation and well-boat operations. We recommend that this inclusive approach also be applied to the associated environmental and operational standards.

It appears that the draft standards have been largely derived from voluntary industry standards and a 'Blueprint proposal' developed by the salmon aquaculture industry through the TSGA with input from an 'independent global expert in salmon biosecurity'. Is the correct? If so, it is important to know the name of this expert, along with their qualifications and affiliations.

Do the draft Biosecurity Standards fully reflect 'world's best practice'? Given that this is a highly specialised field, we strongly recommend that an independent expert review of the draft standards be undertaken by suitably qualified professionals who are not directly aligned with the salmon aquaculture industry, as was done for the EPA's draft review of international legislation and BEMP reviews. The findings of this review should be made publicly available and should be used to further refine the biosecurity standards.

It is also recommended that an independent expert, without ties to industry or government be appointed to the Joint Salmonid Industry Health Group to provide on-going, unbiased advice.

The draft standards and associated discussion papers do not provide the rationale or references for a number of key management criteria, such as the required distances between operations or minimum fallowing periods. This information needs to be provided.

We further note that a number of key recommendations such as the required distances between farming operations and the requirement for pre-treatment of water supplies to hatcheries will not apply to existing operations. Given the catastrophic disease-related losses in places like Chile and the Faroe Islands, how will the exemption of existing operations from these basic biosecurity rules provide long-term security? While industries may be prepared to take this risk, shouldn't the government be looking after the longer-term viability of the industry in the interest of the employment and other benefits that have been attributed to this sector?

The current mix of operators within confined waterways such as the Huon/Channel and Macquarie Harbour carries significant biosecurity risks. The increasing use of intermediate/smolt grow-out sites has also increased the number and volume of transfer operations between leases. What consideration been given to re-allocation of specific regions or zones to separate companies as a means to reduce risks?

I was unable to locate a map showing the location of the proposed biosecurity zones for marine operations, which are apparently the same as existing MFDP regions. Nonetheless, it is important to include this map with the standards.

A freshwater zone that encompasses the entire area of Tasmania seems excessively broad and is likely to need further refinement.

Use of antibiotics, hormones and other therapeutants in operations that discharge to public waterways (marine and freshwater) should be publicly reported in a timely manner. This is standard practice in other countries.

Large quantities of disinfectants are required for many of the recommended biosecurity protocols. These can have adverse impacts on the environment, depending on their composition and use. Further review of this issue is needed, along with clear guidelines and possible regulation of their use.

While the introductory materials acknowledge the importance of biosecurity controls to protect the wider marine environment, there does not appear to be any further consideration of this within the draft standards

themselves. In particular, risks associated with marine pests and/or nuisance species also need to be managed as part of the biosecurity standards. Marine pests may be translocated by the movement of vessels and infrastructure between region or may be stimulated by the substrate and conditions associated marine farming operations. Biofouling removal and disposal should also be considered here. Species of particular concern include stinging hydroids and jellyfish, harmful algal blooms, invasive biofouling species such as the colonial ascidian/sea squirt (*D. perlucidum*), and benthic fauna such as the Northern Pacific seastar (*A. amurensis*) that are attracted to organic enriched sediments and biofouling debris that settles beneath cages. We recommend that an addition section be added to the draft standards under Section 2.1 to address these risks, including - at a minimum – a review of existing and potential risks, along with regular monitoring and reporting, and additional management actions where needed.

We hope these recommendations will be useful and can be incorporated into the final version of this standard. Please contact me if I can provide any further information.

Finally, can you please confirm that all submission on this matter will be made publicly available?

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.