



Public Consultation Summary Report

BIOSECURITY REGULATORY PROPOSAL: TASMANIAN SALMONID INDUSTRY

DECEMBER 2022

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Publisher:

Department of Natural Resources and Environment Tasmania

ISBN:

978-1-74380-151-2

Date:

December 2022

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Background

The Tasmanian Government is developing aquaculture standards to support the sustainability of aquaculture industries in Tasmania. The proposed new standards are part of a continuous improvement process which builds on existing regulatory requirements for a sustainable aquaculture industry, and voluntary measures undertaken by the industry.

Members of the public were invited to have their say on the development of three new draft standards, as shown in figure 1, to support sustainable aquaculture industries in Tasmania.



Figure 1. Draft Aquaculture Standards released for public consultation.

The draft standards released are designed to enhance finfish farming biosecurity management, improve consistency around environmental regulation, and to ensure state-wide consistency of marine farming management controls across all aquaculture sectors. Compatibility across all proposed standards were considered during their development.

The draft standards were published for public consultation 6 April 2022 for an initial period of six weeks. Responding to feedback from the community, NRE Tas opted to extend the consultation timeframe for public consultation through to 20 June 2022 (approximately 10 weeks).

The Government has also committed to future development of a wildlife interactions standard and a freshwater finfish farming standard, which will complement the three currently proposed standards. The development of these standards will be considered through the Government's new Salmon Plan. A draft Salmon Plan is intended to be released for public consultation late 2022.

Introduction

The Department of Natural Resources and Environment Tasmania (NRE Tas) has undertaken consultation on a draft regulatory proposal for biosecurity within the Tasmanian salmonid industry. This report provides a summary of the major comments received through consultation, a response to those comments from NRE Tas and recommendations to the Minister after consideration of the issues raised. The regulatory proposal for biosecurity released for consultation consisted of a range of documentation, including:

- Regulation Impact Statement – DRAFT *Biosecurity (Salmonid Biosecurity Zones) Regulations 2022* (RIS);
- DRAFT *Biosecurity (Salmonid Biosecurity Zones) Regulations 2022* (the DRAFT Regulations);
- DRAFT Biosecurity Program: Tasmanian Salmonid Industry (the DRAFT Biosecurity Program); and
- Questions and Answers Information Sheet for Biosecurity Program: Tasmanian Salmonid Industry.



The DRAFT Regulations establish Biosecurity Zones around Tasmania which identify and separate salmonid production activities into freshwater hatchery operations, farming in the marine environment, and processing of harvested fish.

The DRAFT Regulations establish a suite of Biosecurity Zone Measures specifically designed for each Biosecurity Zone. The Biosecurity Zone Measures collectively form the basis for the DRAFT Biosecurity Program.

The objective of the DRAFT Biosecurity Program is to improve the overall biosecurity of all salmonid production in Tasmania by preventing, eliminating, or minimising (wherever practicable to do so) the risks posed by infectious diseases of salmonids and associated exotic aquatic pests. The DRAFT Biosecurity Program builds upon existing biosecurity practices voluntarily undertaken by industry setting enforceable standards that are designed to reduce biosecurity risks between growing regions, year classes, operators, and individual farms.

All submissions received have been managed in accordance with the Tasmanian Government's Public Submissions Policy, which states:

“The Tasmanian Government is committed to ensuring that public consultation processes are open and transparent and that departments apply a consistent approach to the publication of submissions. This commitment reflects community expectations for having access to information that informs Government decision-making on major policy matters. From 1 January 2018, the Tasmanian Government requires that all Government departments routinely publish on websites all written submissions made in response to broad public consultation on major policy matters.”

Available at:

(https://www.dpac.tas.gov.au/divisions/People_Performance_and_Governance/government_services/public_submissions_policy)

Whilst the default position is the publication of all submissions, exceptions do exist:

1. When it is not in the public interest to release the information: e.g. to protect personal and other sensitive information (including that of a commercial nature)
2. Where the submitter has requested that the submission be treated as confidential.







Public Comment Review Process

Submissions received

A total of eleven submissions addressing the regulatory proposal for biosecurity were received, three of the submissions were marked (in part) Commercial-In-Confidence. Submissions were received as follows:

No.	Organisation	Date Received	PDF	
1	Royal Society for the Prevention of Cruelty to Animals	18/5/2022	 RSPCA Australia Submission.pdf	
2	Institute for Marine and Antarctic Studies - University of Tasmania	19/6/2022	 IMAS Submission.pdf	
3	Tasman Peninsula Marine Protection	19/6/2022	 TPMP Submission.pdf	
4	Tassal Group Pty Ltd	20/6/2022	 TASSAL Submission.pdf	
5	Petuna Aquaculture	20/6/2022	 PETUNA Submission.pdf	
6	Tasmanian Salmon Growers Association	20/6/2022	 TSGA Submission.pdf	
7	Neighbours of Fish Farming	20/6/2022	 NOFF Submission.pdf	 NOFF Dennes Point Declaration.jpg
8	Huon Aquaculture	20/6/2022	 HUON Submission.pdf	



No.	Organisation	Date Received	PDF
9	Tasmanian Alliance for Marine Protection	20/6/2022	 TAMP Submission.pdf  TAMP Dennes Point Declaration.jpg
10	Surfing Tasmania Inc.	20/6/2022	 Surfing Tasmania Inc Submission.pdf
11	Tasmanian Independent Science Council	22/6/2022	 TISC Submission.pdf

Review process

The DRAFT Regulations attracted only very minor comment and are not intended to be revised.

The DRAFT Biosecurity Program attracted the most comment ranging across the Preamble and all 4 Schedules. Of note were:

- Schedule 1: Marine Operations Standards – received comments on 22 of its 50 standards, with 14 of those 22 receiving comments from multiple submissions.
- Schedule 2: Freshwater Operations Standards – received comments on 10 of its 35 standards, with 7 of those 10 receiving comments from multiple submissions.
- Schedule 3: Processing Operations Standards – received comments on 4 of its 17 standards, with no multiples of comments.
- Schedule 4: Glossary – received comments about three of its definitions.

	No. of standards receiving a single comment	No. of standards receiving multiple comments	Total number of comments
Schedule 1	8	14	22
Schedule 2	3	7	10
Schedule 3	4	0	4
Schedule 4*	1	2	3

*Schedule 4 – Glossary contains definitions rather than standards.



The RIS attracted general comment and/or criticism from four of the 11 submissions across a range of sections. Biosecurity Tasmania (BT) notes these comments and criticisms and has published them for the record, however a revised RIS document is not intended to be released.

Submissions were collated, and the content organised according to the specific program section of the preamble, biosecurity standard, or glossary definition that the comments related to.

Breakdown of the issues raised through consultation was achieved by grouping comments into the following 4 categories:

1. **Major issue** - a sound justification for amendment to the program was presented by three or more submissions.
2. **Significant individual comment** – further consideration required with the possibility of amendment to the program.
3. **Other matters** – queries raised that require further comment or clarification from Biosecurity Tasmania.
4. **Minor issue** – typos or minor wording alterations that don't form part of this report.

For a comprehensive understanding of the range of issues raised, readers are encouraged to review each submission individually and on its own merit. All submissions have been published as part of this report.

No submissions made about the regulatory proposal for biosecurity had cross-over with any of the other Aquaculture Standards released for public comment.



Summary of submissions

This section summarises the feedback received in the public submissions and presents it in a manner consistent with the format of the Preamble and the division of standards across the DRAFT Biosecurity Program, accounting for the specific Schedules contained in the Program document.

Note, only minor comment was received regarding the Draft Regulations and there is no further requirement for amendment.

Sections within the Preamble

Section 1.1 Background

Summary of comments received

The assertion “Salmonid farming in Tasmania has not to date experienced an event of such regional magnitude” (paragraph 3) regarding the statement “In previous years the introduction and spread of disease in the waters of other salmonid farming regions of the world has seen devastating impacts on production levels, the economy and the environment” is incorrect. Clearly, the death of over one million fish in Macquarie Harbour in 2018 due (in part) to an outbreak of pilchard orthomyxovirus (POMV) is an example of an industry that has exposed itself (and the environment) to biosecurity threats due to a lack of government oversight and enforced biosecurity regulation.

The Tasmanian salmon industry believes it’s important to recognise and accurately portray the sector in this section of the document. For example, the industry consists of and supports an extensive range of businesses including feed production, pen and net manufacturing, vessel manufacture, processing, transport and logistics, waste disposal, plastics recycling, cleaning, the retail sector and science, technology and education sectors. The industry spends \$500 million dollars annually on Tasmanian businesses and contributes a range of other benefits to the state, including an extensive education and training pathway for the workforce. To be accurate, the background section should also include the history contributing to the development of the Program, as outlined above.

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 Tasmanian Salmon Growers Association 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.

NRE Tas Response and Recommendation

Section 1.1 requires revision to:

- a) provide recognition of the range of external businesses that provide services to the industry;
- b) remove ambiguity about the history of disease incidence;
- c) acknowledge the history and development of a voluntary biosecurity program, including review of the voluntary program by an independent global expert in salmon biosecurity.



Section 1.2 Objective

Summary of comments received

Regarding the wording, "and provides for reporting Standards that will enable rapid response to the detection of endemic, introduced, or new and emerging infectious diseases." It is important that the document reflects that there are a series of measures that are already implemented by industry that result in this outcome. There is not a current vacuum in this area.

In addition, this section may be a more relevant place for the sentence: "The application of the Program Standards also provides for fish health and welfare outcomes."

NRE Tas Response and Recommendation

Review the wording to indicate that industry already self imposes measures for emergency response and that inclusion in the Program will reinforce those measures through the Regulations.

Section 2.1 Biosecurity Risks Managed by the Program

Summary of comments received

The statements made in this section of the program specifications insinuates that the industry has not participated in voluntary programs thus far, which is incorrect. Some appreciation of the industry investment into biosecurity in previous years is recommended to ensure that the public understands that this is not the first and only set of standards that the salmon industry has implemented with regard to biosecurity.

NRE Tas Response and Recommendation

Revision of wording in this section is required to better capture the history and development of biosecurity measures for the industry over time. Also refer to revisions suggested for Section 1.1 Background.

Section 3.2 The Biosecurity Act

Summary of comments received

The Biosecurity Act: (last paragraph) "...promoting sustainable development" The extended (full) definition of "sustainable development" as provided for by the Tasmanian Resource Management and Planning System (RMPS) should be included here.

NRE Tas Response and Recommendation

Include a link to the definition of Sustainable Development provided in the Guide to the Resource Management and Planning System published on the Environment Protection Authority website.



Section 5 Program Review Process

Summary of comments received

A statutory review timetable must be incorporated into the program (minimum three years) including trigger points for early review if required. Any review process must include the opportunity for public comment.

NRE Tas Response and Recommendation

Minimum review periods are not a statutory (legal) requirement unless they are specified in the program standards. The standards do not specify minimum review periods however triggers for review will be informed through the Joint Salmonid Industry Health Group and in consultation with the Chief Veterinary Officer. BT does not agree that public consultation will be required for all revisions made to the program and will reserve the right to make determinations about the need for and extent of any future consultation processes.

Amendment to Section 5 is not required.

Schedule I: Marine Operations Standards

MOS 14 – Detection of Biosecurity Events:

To promote compliance with section 73 of the Act, a salmonid producer must ensure that any suspected or known incidents of the following nature are treated as a suspected [biosecurity event](#):

- (a) any incidence of fish mortalities, that are unrelated to predation, misadventure or other similar event, affecting greater than 0.25% of fish per day for three consecutive days in an individual pen, or affecting more than 0.5% of fish in a single day in an individual pen; and
- (b) any incidence of any known or unknown [disease](#) affecting greater than 0.25% of fish per day for three consecutive days in an individual pen, or affecting more than 0.5% of fish in a single day in an individual pen; and
- (c) any discovery during marine farming or other operations of any notifiable or suspected invasive marine [pests](#), such as any unusual, uncharacteristic or unidentified marine flora or fauna species; and
- (d) any type of incident, event or observation specified by the Joint Salmonid Industry Health Group for the purposes of this standard; and
- (e) any other incident, event or observation that, in the reasonable opinion of the salmonid producer, indicates that a biosecurity event has occurred or is likely to occur.

Summary of comments received

Regarding MOS 14 a), the 0.5% threshold for reporting on one single day is inappropriate and does not address the intent for improved biosecurity outcomes.

The lower 0.25% threshold for 3 consecutive days is a much more logical and sensitive measure to detect possible biosecurity risks posed by a population, so we propose this measure is retained whilst the 0.5% measure is removed. A one-off exceedance of 0.5%, that is not accompanied by concurrent exceedance of the 0.25% threshold for 3 days, is unlikely to be due to infectious disease



of concern, so we do not feel it is appropriate to notify the former unless there is identification or suspicion that it is caused by an infectious disease agent.

Regarding MOS 14 (b), it is the strong view of industry that this clause is removed from the standards. This requirement cannot be implemented as it is specifically written. The definition of disease in relatable legislation means any organism reasonably expected to be present in a pen of fish would count, including the endemic organism AGD. The *Animal Health Act 1995* for example defines “disease: as:

- (a) a disease that affects or may affect an animal; and
- (b) a disease agent; and
- (c) a zoonosis;”

It is highly likely the AGD organism would be present on a number of fish in excess of 0.25% on any day, in any pen. This would result in industry notifying every pen every day to be sure of meeting the requirement.

With respect to this duty to report potential biosecurity risks to the best of the industry’s ability, the clause MOS 14(e) would cover the intent of MOS 14(b) and thus MOS 14(b) should be removed from the standards, as it is operationally redundant.

There is also considerable ambiguity on how often notifications are required during the course of a disease outbreak. For example, if there is an infectious disease issue affecting a given pen and resulting in 0.6% mortality for a number of days, is the requirement just to notify once or every single day until mortality drops back below 0.25%? The wording of this standard does not adequately address this ambiguity.

It is also important these standards (MOS 14a & MOS 14b) clarify that when morts are not removed daily, “averages over days” must be determined, ie. One day with zero morts due to non-removal should not interfere with the 0.25% daily for three days criteria. The wording of this standard therefore does not adequately address ambiguity in a number of areas.

NRE Tas Response and Recommendation

In response to comments about 14 a): The requirement to report mortality events occurring at a rate of 0.5% of fish in a single day in an individual pen is not considered indicative of a biosecurity event and is more likely to be the result of misadventure or an environmental event. Such events would result in an increased reporting burden for industry and government to manage with little benefit for biosecurity of the industry. This requirement should be removed. The remaining requirement to report mortalities affecting greater than 0.25% of fish per day for three consecutive days in an individual pen and the other four clauses of MOS 14 provide sufficient meaningful requirements to satisfy the biosecurity objective fully.

In response to comments about 14 (b): BT agrees that setting the same trigger points for disease reporting as for mortality reporting is not achievable due to the difficulties in assessing the true disease state of individual fish. Assessment of disease rates in a population of fish (as required by the standard in its current form) could result in destructive sampling of large volumes of fish on a regular basis and this is not the intent of the standard. However, the *Biosecurity Act 2019* (the Act) has specific disease reporting requirements, and the standard should reflect this. The General Biosecurity Duty of the Act requires notification of endemic diseases (commonly occurring issues such as amoebic gill disease) but does not require ongoing reporting of the existence of such diseases. Therefore, BT suggests the following re-wording of MOS 14 b) to achieve the biosecurity objective:



“Any incidence of a notifiable, new or unknown disease, or any significant change in the presentation of an existing disease.”

The Chief Veterinary Officer requires notification as close to the start of an event as possible and will follow up further with individual companies as necessary to maintain a good understanding of any disease event as it evolves and is managed.

In response to comments about mortality: BT notes the issues associated with estimating mortality, but the risk of misinterpretation is not considered large, and an ongoing dialogue approach is expected of industry.

MOS 18 – Fish Movement Records

A salmonid producer must maintain up-to-date fish movement records that contain the information necessary to enable the accurate traceability of salmonid stock being moved from, to and within any area, including (without limitation) –

- (a) the date and method of conveyance for each movement; and
- (b) a description of each consignment of fish being moved; and
- (c) the unique stock-group identification code, species, year class, estimated count and average weight of the fish being moved; and
- (d) for any fish moved from any [premises](#), the premises to which the fish was sent; and
- (e) for any fish brought onto any premises, the premises from which the fish came; and
- (f) if fish are brought into a salmonid [biosecurity zone](#) from a freshwater facility, a copy of –
 - (i) the relevant Inland Fisheries Service Transport Approval; and
 - (ii) all [biosecurity certificates](#) issued in respect of the fish.

Summary of comments received

Further definition of what is required in a description for 18 (b) is needed, as 18 (c) covers unique identification codes, fish numbers, year class and average weight.

In relation to 18 (f) and the reference to: “relevant Inland Fisheries Service Transport Approval” – we would like to see the actual name of the approval letter. From an auditing perspective, they will request specific documentation if it is listed. If not, simply change to “relevant approvals”.

NRE Tas Response and Recommendation

Review the wording of 18 (b) and 18 (c) in response to these comments and incorporate the wording into the one sub-clause:

E.g. (b) a description of each consignment of fish being moved, including:

- (i) unique stock group identification code, and
- (ii) species and year class, and
- (iii) estimated count and weight.

The Inland Fisheries Service (IFS) Exemption Permits must be included in 18 (f) as an alternative and acceptable document. IFS grant Exemption Permits to approved hatcheries as an alternative to



making an application for a Transport Approval. Transport Approvals generally only apply to the movement of a single batch of fish from a facility.

MOS 21 – One Salmonid Species Farmed Within Marine Farm

A salmonid producer must ensure that only one species of salmonid is held within a marine farm at any time, except where otherwise expressly authorised in writing by the [Secretary](#).

Summary of comments received

Only one salmonid species should be farmed within a marine farm, but authorisation possible. Allowing another salmonid species on a marine farm will increase risks of disease outbreaks.

NRE Tas Response and Recommendation

BT recognises the risk outlined in this comment. However, there will continue to be circumstances where some operators may need to rely on specialised exemptions or authorisations to maintain business continuity. Such exemptions or authorisations will only be issued through an application process which takes into consideration the advice of the Chief Veterinary Officer and may contain specific operating conditions.

MOS 23 – Single Year Class Stocking Only

Unless otherwise approved in writing by the Secretary, a salmonid producer must ensure that –

- (a) in any marine salmonid biosecurity zone other than the Northern Marine Salmonid Biosecurity Zone, a marine farm is stocked only with fish of a single year class; and
- (b) salmonid smolt are held with fish of the same window cohort until moved to grow-out farms; and
- (c) all salmonid smolt input into the Western Marine Salmonid [Biosecurity Zone](#) is synchronised and carried out in a window period agreed to in the biosecurity zone management plan for the Zone.

Summary of comments received

Single year class does not apply to all zones, the Northern Marine Salmonid Biosecurity Zone is exempt. Furthermore, the Secretary can authorise multiple year classes within a marine farm. Scientific reviews of international practices relating to salmon farming biosecurity have clearly highlighted the use of single year class regions as being a best practice approach to managing biosecurity and disease risk (Hammell and Dohoo 2005, Mardones et al 2014).

Some legacy issues were also noted with trout leases in the Western Marine Salmonid Biosecurity Zone.

NRE Tas Response and Recommendation

BT recognises the issues raised, however, due to the nature and layout of the farming infrastructure in the NMSB Zone, and the fact that there is only one salmonid producer in this water space, it would be unreasonable to impose this standard in that Zone. The operator in the NMSBZ manages



the health of their fish across this site as a single compartment for the purposes of grow-out to harvest. The risk of disease transferring from this zone to another is considered negligible if managed in accordance with the remaining standards in the Biosecurity Program, because no fish move from this zone to any other marine biosecurity zone (or to any other biosecurity zones other than for processing).

BT notes a similar exemption is required in the Western Marine Salmonid Biosecurity Zone to accommodate some legacy leases that grow trout. A recommended wording change is:

Amend "salmonid smolt" to "salmon smolt" in (c) and include a new pt. (d) "All trout smolt input into the WMSBZ is carried out as agreed in the Biosecurity Zone Management Plan".

MOS 24 – Separation of Marine Farming Structures

- (1) Unless otherwise approved in writing by the Secretary, a salmonid producer must ensure that –
 - (a) all moored marine farming structures (that contain fish) on farms designated as smolt sites within 3 kilometres of one another hold the same year class and window cohort of fish; and
 - (b) any moored marine farming structure (that contains fish) is separated by a distance of at least four (4) kilometres from any other moored marine farming structure (in the same or different marine farm) holding fish of a different year class.
- (2) Except where provided otherwise in an applicable biosecurity zone management plan, this standard does not apply in respect of an [established marine farm](#).

Summary of comments received

Separation of marine farming structures (basically separation of farming sites) does not apply to an established marine farm. This means that the separation distance between established marine sites is not determined. Whilst it is acknowledged that a transition period may be appropriate, there should be a deadline for all facilities, including existing or approved, to meet the standard for separation of marine farming structures. The risk factors underpinning separation distance have been linked to local hydrodynamic conditions, with biosecurity risk changing depending on water movement and exchange rates, but regardless of hydrodynamic conditions short distance between sites is an important risk factor (Mardones et al 2014).

Distances less than 5 km increased risk of viral disease outbreaks in farmed Atlantic salmon (Jarp and Karlsen 1997). For example, the risk of ISAV dissemination from infected to adjacent farms was inversely related to seawater distance among the farms (Mardones et al 2014, Aldrin et al 2011, Salama and Murray 2013). The relatively short distance between farming sites could be overcome by zonal production, which means coordinated production within a whole zone (potentially multiple companies) to manage biosecurity risk. For example, using only one year class of fish in the zone, and coordinating sea transfer and harvesting of fish in the zone, and following of the zone (Lillehaug et al 2015). Other countries established exclusion or management zones (for example Disease Management Areas – DMAs), which are defined by clusters of sites sharing tidal excursions, bays or other common waterways (Werkman et al 2011, Salama and Murray 2013). For example, in Scotland farms are grouped within disease management areas with boundaries defined by where the closest



pair of farms is separated by more than twice the tidal excursion distance - 7.2 km in main Scotland and 3.6 km in Shetland Islands (Salama and Murray 2013).

To maintain the integrity of the program this MOS should apply retrospectively to any "...established marine farm."

MOS 24(2) speaks to the standard "not applying in respect of an established marine farm". However, similar to the level of derogation for freshwater facilities that have received approvals [i.e. FOS 20(2)], the standard should be rewritten to include farms that have been approved, but not yet operational, plus farms that have been in operation but are not operating at the time of the introduction of the standards. This could be achieved by rewording the standard or the definition of "established marine farm". We have suggested alternative wording for the definition of "established marine farm" later in this submission.

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?

NRE Tas Response and Recommendation

BT recognises the issues raised, however due to the current geographic location of existing farms, it is not possible to impose a minimum 5 km separation distance or base separation distances on tidal excursion distances. The Marine Biosecurity Zone approach provides the relevant management zone approach for Tasmania based on a consensus with industry, recorded disease history and established hydrodynamic science.

BT notes the concern regarding exemptions for existing operations however, for business continuity, this should not be enforced on existing lease holders. This standard will provide minimum separation distances for the establishment of any future leases.

Management of production zones is further addressed through the implementation of Biosecurity Zone Management Plans for shared water spaces. These plans are required to detail, as a minimum, the planned stocking of marine farms, the location of year-classes, and fallowing of marine farms.

BT suggests review and amendment of the wording in the Glossary for the meaning of "established marine farm" for clarification and to better align with the requirements already stated in the standard FOS 20.

MOS 25 – Fallowing

A salmonid producer must ensure that fallowing of marine farms in any biosecurity zone other than the Northern Marine Salmonid Biosecurity Zone is carried out after all fish have been removed



from the marine farm, for a minimum 6-week period for salmonid grow-out farms, and 8 weeks for salmonid smolt farms, except where otherwise approved in writing by the [Secretary](#).

Summary of comments received

Fallowing period can be reduced by the Secretary. It is currently unclear in the plan if fallowing will happen for all farms in a biosecurity zone at the same time, which is the preferred biosecurity practice. Preferably fallowing should occur in the whole biosecurity zone at the same time. For example, coordinated stocking and fallowing is required within each Disease Management Area in Scotland 6 weeks – 6 months, Faroe Is – 2 months and Norway – 3 months.

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.

NRE Tas Response and Recommendation

The Biosecurity Zone Management Plans required for shared water spaces will clarify when fallowing will occur for each lease within that zone. The current geographic location of existing farms means that fallowing of an entire zone at the same time is not possible without significantly compromising business viability.

These criteria were informed through the Blueprint which was originally prepared drawing on domestic and international experience and subject to review by an international expert in salmon biosecurity.

MOS 35 – Movement of Salmonid Equipment

A salmonid producer must ensure that –

- (a) movement of used salmonid equipment (other than a [vessel](#)) to and from marine farms is minimised so far as is reasonably practicable; and
- (b) all salmonid equipment has undergone any [treatment](#) process that is reasonably necessary to prevent, eliminate or minimise (so far as is reasonably practicable) any [biosecurity risk](#) likely to be posed by the equipment before it is moved to or from any marine farm; and
- (c) records are kept of the movement of any salmonid equipment identified by the producer as likely to pose a biosecurity risk, which –
 - (i) enable the movements and location of the equipment to be traced; and
 - (ii) record information of any treatments or treatment measures the equipment has undergone before, during or after its movement.

Summary of comments received

The words "to and from" in MOS 35(a) and MOS 35(b) should be replaced with "between" as items may be removed from marine farms for disposal and which do not necessarily therefore represent a biosecurity risk. In addition, the definition of "used salmonid equipment" is very broad, and we will address comments to that in considering the glossary. In addition, the standards should include a requirement that used salmonid equipment, if removed from a marine farm but not the water must



be treated or held in a way that does not increase biosecurity risk for any other operator in the area.

NRE Tas Response and Recommendation

A wording amendment is required in response to feedback for clauses (a) and (b) to replace "to and from" with "between" as it is more operationally relevant. Comments regarding "used salmonid equipment" will be addressed when reviewing the Glossary.

Regarding "equipment removed from a farm but not the water": BT recognises there is a potential biosecurity risk posed by such equipment that currently isn't managed by the Program and suggests a second subclause be added to the standard as follows:

- (3) Used salmonid equipment that is removed from a marine farm, but not the water, must be managed in accordance with subclause (1) and be held in a manner that prevents, eliminates or minimises (so far as is reasonably practicable) any biosecurity risk likely to be posed by the equipment to any other salmonid producer in the Zone.

MOS 38 – Treatment of Equipment Used to Carry Harvested Fish or Blood Water

A salmonid producer must ensure that any bin, tanker or other similar equipment used to transport harvested fish and/or blood water –

- (a) is secure and leak-proof; and
- (b) is subject to an effective [treatment](#) measure after each use so that any [biosecurity risk](#) posed by the equipment is prevented, eliminated, or minimised so far as is reasonably practicable, before it is reused.

Summary of comments received

This standard is an example of a prescriptive and restrictive standard, namely MOS 38(b) where it requires "an effective treatment measure after each use". While food safety drives the treatment of containers of harvested fish, the removal of bloodwater by vacuum tankers may involve taking on some liquid at one site and potentially more at another and the tanker may not necessarily be cleaned between, however the biosecurity risk is negligible.

NRE Tas Response and Recommendation

BT recognises the operational restrictions this standard applies in its current written form and notes the level of prescription applied by the standard does not necessarily provide additional mitigation of biosecurity risk in all circumstances.

MOS 38 (b) would be better written: is subject to an effective treatment measure to prevent, eliminate or minimise (so far as is reasonably practicable) any biosecurity risk posed by the equipment.



MOS 40 – Certification of Fish from Freshwater Facility to Marine Farm

- (1) A salmonid producer must ensure that no live fish or group of live fish from a freshwater facility is moved into a marine salmonid biosecurity zone unless a veterinary [biosecurity certifier](#) has issued a [biosecurity certificate](#) in respect of the fish, which certifies the following matters:
 - (a) the vaccination of the fish in accordance with a vaccination program endorsed by the Joint Salmonid Industry Health Group and approved by the Chief Veterinary Officer; and
 - (b) the fish being from a tank or pond of fish that has passed, not more than 28 days prior to the day of movement, a health assessment process involving –
 - (i) a gross external inspection by a person competent in fish health; and
 - (ii) appropriate sampling for necropsy and laboratory testing of each tank or pond of fish to be transported; and
 - (iii) consideration of the disease status of all populations in the respective facilities; and
 - (c) the fish being sufficiently seawater adapted for entry into the zone.
- (2) A salmonid producer must keep a record of all health assessments carried out, and certificates issued, under subclause (1).

Summary of comments received

MOS 40(1)(a) should be written "the vaccination of the fish in accordance with **any** vaccination program endorsed..." rather than "a vaccination program", as there may not necessarily be an endorsed vaccination program under certain circumstances, for example, where a vaccine does not yet exist for certain endemic pathogens. Or it has been shown that an endemic pathogen, or pathogens, present lower risk to the animals than the process of vaccination.

In addition, and considering consistency of standards, in this case between MOS 39 and MOS 40, we can see that MOS 39 is better written in terms of objectivity and avoiding unnecessary prescription. As written the standard requires every tank or pond to be specifically laboratory tested. This penalises operators with many smaller tanks/ponds compared to fewer larger tanks/ponds and does not take into consideration that it is the population of fish which represents a risk unit, rather than individual tanks/ponds in the same facility.

NRE Tas Response and Recommendation

BT suggests the following amendments to the current wording of MOS 40 are required for a more consistent application of the standard across all freshwater facilities:

- (1) A salmonid producer must ensure that no live fish or group of live fish from a freshwater facility is moved into a marine salmonid biosecurity zone unless a veterinary [biosecurity certifier](#) has issued a [biosecurity certificate](#) in respect of the fish, which certifies the following matters –
 - (a) the vaccination of the fish in accordance with any vaccination program endorsed by the Joint Salmonid Industry Health Group and approved by the Chief Veterinary Officer; and
 - (b) the fish being from a population of tanks or ponds of fish that has passed, not more than 28 days prior to the day of movement, a health assessment process involving –
 - (i) a gross external inspection by a person competent in fish health; and



- (ii) consideration of the disease status of all populations in the respective facilities; and
 - (iii) appropriate sampling at the discretion of the veterinary biosecurity certifier for laboratory testing of each batch, tank or pond of fish to be transported; and
- (c) the fish being sufficiently seawater adapted for entry into the zone.
- (2) A salmonid producer must keep a record of all health inspections carried out, and certificates issued, under subclause (1).

Note: For consistency of application of the standards, the same wording changes have been made to the corresponding standards:

MOS 39 – Veterinary assessment before movement of fish between marine farms

FOS 25 – Veterinary assessment before movement of fish into or from freshwater facility to another freshwater environment

FOS 27 – Certification of fish from freshwater facility to marine farm

MOS 41 – Decontamination of Live Fish Transport Vehicles

A salmonid producer must ensure that live fish transport vehicles under the control or management of the producer undergo an effective [treatment](#) measure after each individual trip involving the transport of fish so as to prevent, eliminate or minimise so far as is reasonably practicable any [biosecurity risk](#) that may be posed by the vehicle before its next use.

Summary of comments received

This standard is unnecessarily prescriptive about applying a “treatment measure after each individual trip”. This practice was voluntarily applied by industry when acclimating smolt to sea conditions through circulating seawater through transport tanks on route to marine farms. These tanks and trucks required cleaning and decontamination before returning to a freshwater zone, preventing any transfer of marine environment risk.

Over time, diverse transport methods have evolved which makes this prescriptive standard redundant. New methods of moving fish from freshwater to freshwater facilities, and from freshwater facilities to marine farms, present different levels of risk of the movement of potentially contaminated water from the receiving environment back into the freshwater facility.

The standard needs to recognise this and allow companies to manage risk via methodology other than the time, cost and chemical use represented by decontamination “after each individual trip”.

NRE Tas Response and Recommendation

BT agrees the methodology behind this standard is now outdated and the necessary amendment is to re-write the standard as follows:

MOS 41. A salmonid producer must ensure that live fish transport vehicles under the control or management of the producer undergo effective treatment measures to ensure any biosecurity risk related to movements from the freshwater to marine, or freshwater to freshwater environments are prevented, eliminated or minimised so far as is reasonably practicable.



BT notes that the same wording amendment must be made to FOS 29 for consistency.

Additional MOS – Removal of Fish Mortalities

Summary of comments received

There is no requirement for daily removal of mortalities in this program. This is considered a fundamental measure to improve biosecurity and removal on a daily basis, or as often as reasonably practicable, should be referenced.

NRE Tas Response and Recommendation

BT recognises that daily removal of mortalities is desirable but not always practicably possible for a range of reasons including weather and diver availability.

A formatting error, which resulted in the unintentional removal of this standard from the program, occurred just prior to the document being published for consultation. BT recognises the importance of this standard and its re-instatement as follows (the standard will be re-instated as MOS 48 in the revised Program):

Removal of Fish Mortalities

- (1) A salmonid producer must ensure that all fish mortalities are –
 - (a) removed from pens as often as is reasonably practicable; and
 - (b) transported by a transporter approved by the Director of the EPA to a disposal site approved by the Director of the EPA.
- (2) All fish mortalities that originate from the Western Marine Biosecurity Zone are to be managed in accordance with a general biosecurity direction issued by the Chief Veterinary Officer.

Note: BT has further reviewed this standard in relation to MOS 12 and FOS 11 (both concerning Fish Health Monitoring). Given transportation and disposal of fish mortalities is managed by this standard (Removal of Fish Mortalities) it is appropriate to remove the duplication of this requirement in MOS 12 and FOS 11.



Schedule 2: Freshwater Operations Standards

FOS 15 – Fish Movement Records

A salmonid producer must maintain up-to-date fish movement records that contain the information necessary to enable the accurate traceability of salmonid stock being moved to or from freshwater biosecurity zones, including (without limitation) –

- (a) the date and method of conveyance for each movement; and
 - (b) a description of each consignment of fish being moved; and
 - (c) the unique stock-group identification code, species, year class, estimated count and average weight of the fish being moved; and
 - (d) for any fish moved from any [premises](#), the premises to which the fish was sent; and
 - (e) for any fish brought onto any premises, the premises from which the fish came; and
 - (f) if fish are moved to a marine farm from a freshwater facility, a copy of –
 - (i) the relevant Inland Fisheries Service Transport Approval; and
- (ii) all [biosecurity certificates](#) issued in respect of the fish.

Summary of comments received

Refer to comments received for MOS 18 (above).

NRE Tas Response and Recommendation

BT suggests amendment to the wording to align with changes made to MOS 18.

FOS 20 – Freshwater Used in Freshwater Facilities

- (1) A salmonid producer must ensure that the fresh water used in any freshwater facility operated by the producer is –
 - (a) sourced from bore-water supplies; or
 - (b) otherwise subject to an effective [treatment](#) process before its use to ensure that any [biosecurity risk](#) posed by the water is prevented, eliminated or minimised so far as is reasonably practicable.
- (2) This standard does not apply to a freshwater facility –
 - (a) that was constructed prior to the commencement of this standard; or
 - (b) that had commenced being constructed prior to the commencement of this standard; or
 - (c) that is the subject of an approved development permit issued by a council before the commencement of this standard.



Summary of comments received

Fresh water source standard does not apply to existing or approved freshwater facilities. There should be a deadline for all facilities, including existing or approved, to meet the fresh water source standard.

This standard must be applied retrospectively.

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?

NRE Tas Response and Recommendation

BT notes that the smaller hatcheries concerned are generally located on upper riverine systems and are somewhat isolated from each other consequently with a reduced risk of spread of disease agents between facilities. Hatchery technology is already moving away from flow-through facilities and towards Recirculating Aquaculture Systems which will continue to strengthen the biosecurity outcomes of this standard.

Amendment to the standard is not considered necessary.

FOS 23 – Notification, Testing and other Requirements Relating to Therapeutants

A salmonid producer engaging in the use of therapeutants must ensure that –

- (a) prior to the use of a therapeutant, the [Chief Veterinary Officer](#) is notified of the proposed use, and provided with a copy of any medication authority specific to the stock treatment that has been issued; and
- (b) all stock receiving medicated feed is recorded to ensure the correct withholding period (if any) is met; and
- (c) all feed equipment used to deliver and distribute medicated feed is appropriately treated after use to manage any risk of residual therapeutant entering any other than treated animals; and
- (d) any requirements to undertake residue testing specified in any relevant legislative requirement or instrument issued by a Commonwealth, State or Local Government authority are complied with.

Summary of comments received

We submit that the requirement to notify the CVO of proposed therapeutant use is an appropriate standard for the marine environment where waters are shared and treatments occur in what is essentially a public location, but not in a freshwater environment within private land. It is inconsistent



with the treatment of any other animal primary producer. It is also a duplication of Environmental Licence conditions for premises regulated by the EPA.

Recommendation: To define “therapeutants” or to be specific about “antibiotic use”. As drafted, immersion baths for ectoparasites could be considered “therapeutants”. However, if the intention is for antibiotic use (only) to be notifiable, then this should be clear. Otherwise, treatments such as peroxide, formalin and chloramine T would also fall under this banner. Our preference is to treat all our inland farms as private, so it is more appropriate for BT to write in guidelines on antibiotic treatment procedures, rather than a notification process seeing as this is not expected with any other private farming enterprise. We can appreciate that there is a requirement to notify if antibiotic treatments are being used in public waterways, and therefore support notification to the Chief Veterinary Officer prior to treatment in all marine leases.

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.

NRE Tas Response and Recommendation

BT recognises that the intent of this standard (FOS 23) is directed to antibiotic use in fish rather than therapeutant use generally. Therapeutant use may capture the use of a number of substances that aren't an indication of fish health and therefore is not of interest from a biosecurity point of view. In addition, therapeutant use is already reported to the Environment Protection Authority.

There are no food safety concerns with antibiotic use in juvenile fish at a hatchery and the responsible use of antibiotics is covered by the Agvet legislation requiring veterinary prescription.

Therapeutants are a broadly defined range of chemicals but the products of interest are the antibiotics. Therefore, the word ‘therapeutant’ should be changed to ‘antibiotic’ as appropriate in the standard, including in the corresponding standard of the Marine Operations Schedule:

MOS 30 – Notification, testing and other requirements relating to therapeutants.

The requirement to report antibiotic use in freshwater facilities to BT should be removed.

To clarify the issue of the scope of antibiotic chemicals the following definition was adopted;

Antibiotic means a registered medicine that will selectively kill, prevent or inhibit growth of susceptible bacteria and other microbes. These chemicals are listed in the World Health Organisation AWaRE Classification of Antibiotics to be found at; <https://www.who.int/publications/i/item/2021-aware-classification>

FOS 24 – Movement of Salmonid Equipment

A salmonid producer must ensure that –

- (a) movement of used salmonid equipment (other than a [vehicle](#)) to and from freshwater facilities is minimised so far as is reasonably practicable; and
- (b) all salmonid equipment has undergone any [treatment](#) process that is reasonably necessary to prevent, eliminate or minimise so far as is reasonably practicable any [biosecurity risk](#) likely to be posed by the equipment before it is moved to or from any freshwater facility; and
- (c) records are kept of the movement of any salmonid equipment identified by the producer as likely to pose a biosecurity risk, which –
 - (i) enable the movements and location of the equipment to be traced; and



- (ii) record information of any treatments or treatment measures the equipment has undergone before, during or after its movement.

Summary of comments received

Refer to comments received for MOS 35 (above).

NRE Tas Response and Recommendation

BT suggests amendment to the wording to align with changes made to MOS 35.

FOS 27 – Certification of Fish from Freshwater Facility to Marine Farm

- (1) A salmonid producer must ensure that no live fish or group of live fish from a freshwater facility is moved to a marine salmonid biosecurity zone unless a veterinary [biosecurity certifier](#) has issued a [biosecurity certificate](#) in respect of the fish, which certifies the following matters:
- (a) the vaccination of the fish in accordance with a vaccination program endorsed by the Joint Salmonid Industry Health Group and approved by the Chief Veterinary Officer; and
 - (b) the fish being from a tank or pond of fish that has passed, not more than 28 days prior to the day of movement, a health assessment process involving –
 - (i) a gross external inspection by a person competent in fish health; and
 - (ii) appropriate sampling for necropsy and laboratory testing of each tank or pond of fish to be transported; and
 - (iii) consideration of the disease status of all populations in the respective facilities; and
 - (c) the fish being sufficiently seawater adapted for entry into the zone.

A salmonid producer must keep a record of all health assessments carried out, and certificates issued, under subclause (1).

Summary of comments received

Refer to comments received for MOS 40 (above).

NRE Tas Response and Recommendation

BT suggests amendment to the wording to align with changes made to MOS 40.

FOS 29 – Decontamination of Live Fish Transport Vehicles

A salmonid producer must ensure that live fish transport vehicles under the control or management of the producer undergo an effective [treatment](#) measure after each individual trip involving the transport of fish so as to prevent, eliminate or minimise so far as is reasonably practicable any [biosecurity risk](#) that may be posed by the vehicle before its next use.

Summary of comments received

Refer to comments received for MOS 41 (above).



Response and Recommendation

BT suggests amendment to the wording to align with changes made to MOS 41.



Schedule 4: Glossary

Established Marine Farm

The industry has put a lot of resources into acquiring their current farming areas, in their specific locations, and their productive potential should not be adversely impacted in retrospect.

Established marine farm definition should be amended to read: “established marine farm means a marine farm that has been fully or partially approved under the relevant marine farm development plan process prior to the date of introduction of the Standards. For the avoidance of doubt, this includes farms that have received a marine farming licence, farms that were previously operative, but which have been rested, and farms that are currently fully operational.”

NRE Tas Response and Recommendation

BT supports the clarification of the meaning for an established marine farm as described. However further revision has occurred to clarify the issue. The following equivalent definition will be used:

***Established marine farm** means a marine farming lease (lease) that has been granted in accordance with the Marine Farming Planning Act 1995 under the relevant marine farm development plan process prior to the date of introduction of the Standards. For the avoidance of doubt this includes leases where a marine farming licence has been granted in accordance with the Living Marine Resources Management Act 1995 and leases that were previously operational, but which have been fallowed.*

Used Salmonid Equipment

Used salmonid equipment has a very broad definition and could include a wide variety of objects which would not pose any biosecurity risk. The definition could be better refined to: “used salmonid equipment means salmonid equipment used in the primary production of salmonids and which has been, or could be expected to have been, in contact with the salmonids or the water they have been held in.”

NRE Tas Response and Recommendation

BT supports the clarification of the meaning for used salmonid equipment as described.

Fish

The definition of “fish” should include any part of a fish and any stage of its life cycle.

NRE Tas Response and Recommendation

"Fish" is defined in the Biosecurity (Salmonid Biosecurity Zones) Regulations 2022 as: any aquatic animal, whether dead or alive, of any species (other than amphibians, birds, mammals or reptiles) which, in the normal course of events, spends part or all its life in the aquatic environment.

The *Biosecurity Act 2019* further defines animal to include fish, any part of a carcass and at any life stage.

Amendment is not necessary.





General Comments

Animal Welfare

Summary of comments received

The document should mention the need for low-stress fish handling during all fish handling procedures, including during e.g. spawning, crowding, grading, vaccination, transport, bathing and during harvesting.

There is no mention of wildlife interactions other than in the context of scavengers.

NRE Tas Response and Recommendation

Fish welfare and wildlife interactions are recognised to be important aspects of successful fish production but have limited direct application in the biosecurity program.

The *Nature Conservation Act 2002* provides legislative control concerning interactions between marine farming and wildlife, the Government intends to complement the Act by developing a new Aquaculture Standard – Wildlife Interactions to replace and modernise the existing Seal Management Framework. These actions will be considered through the Government's new Salmon Plan. A draft Salmon Plan is intended to be released for public consultation late 2022.

The *Animal Welfare Act 1993* covers fish welfare. Standards for animal welfare should not form part of this Program or the Regulations. However, it is generally recognised that good biosecurity and good fish health result in best fish welfare outcomes.

Auditing the Program

Summary of comments received

Regarding Responsibilities of Government: “Monitoring and maintenance of Program requirements through regular external/third party audits” How will this be achieved? At what frequency? Where is the relevant Risk Management profile/matrix? Cost recovery??

There are still some unanswered questions around how the regulations will be implemented and the audit process that is expected by BT. We hope that this process will be developed with the industry to ensure that the operational manual for the audit process has good governance and program integrity.

NRE Tas Response

Biosecurity Auditors are appointed under section 34 of the *Biosecurity Act 2019* (the Act) and biosecurity audits are carried out in accordance with Part 10, Division 2 – Biosecurity Audits. The Biosecurity Certification Scheme established under the Program requires compliance audits of salmonid producers to occur at least once every three years. Part 12 of the Act provides for cost recovery in relation to auditing.

BT recognises that further work will be required to develop an audit program and guidelines. It is intended that this process will be a collaborative effort between government and industry to ensure a clear, robust, quality audit regime supports the management of the Program.





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