



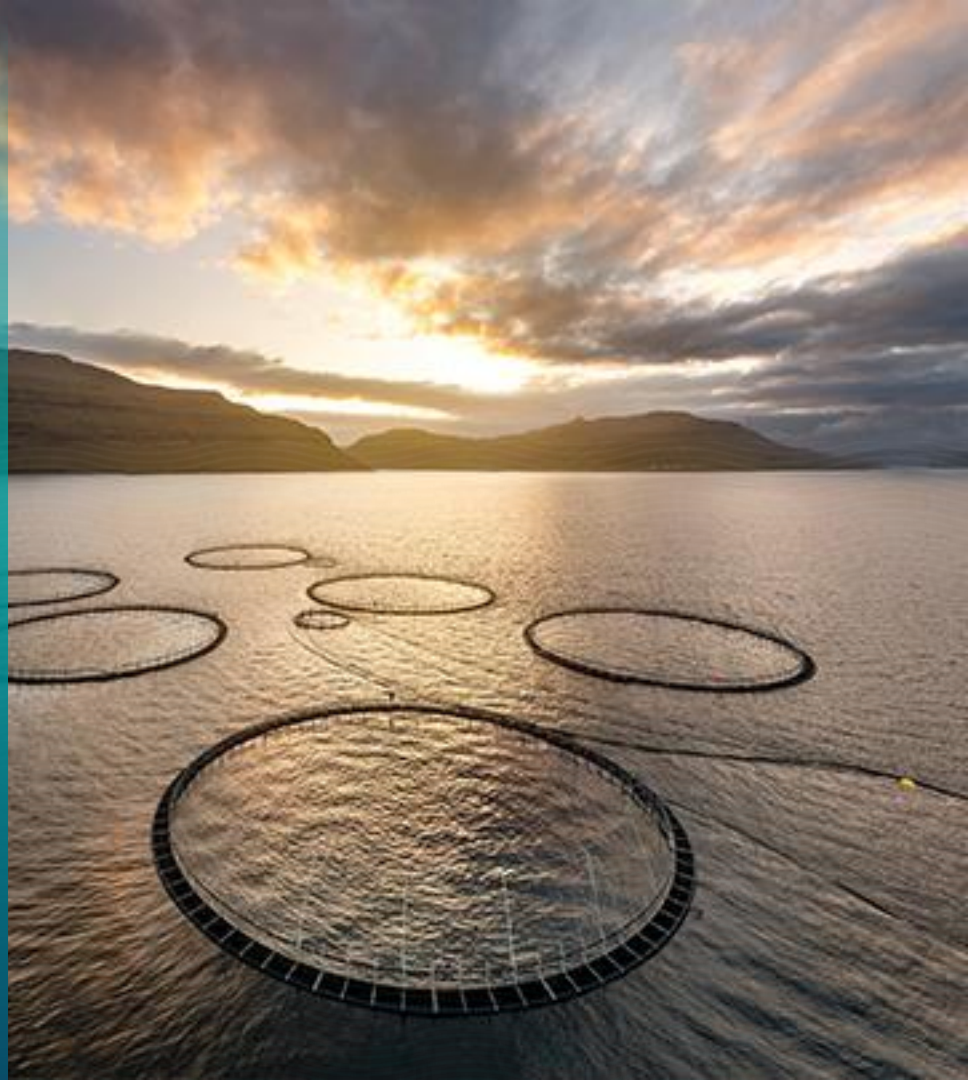
IN DEPTH

## 2.4 Alien Species and Native Biodiversity

Stakeholder Consultation April 2024



**Setting The  
Standard for  
Seafood**



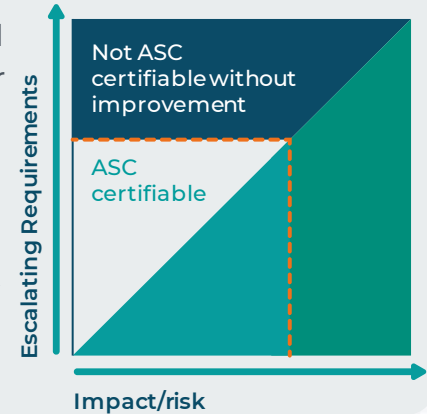
# The issue and ASC's approach

## The issue

- Animals that, through aquaculture activities, are taken from their native habitat and introduced into a new (non-native) habitat are considered **alien species**. Examples include Nile Tilapia farmed in Asia and Atlantic Salmon farmed in Chile
- This also includes breeds or strains within their native habitat, such as Atlantic Salmon farmed in Norway

## Our approach

- The ASC Farm Standard uses independent, scientific categorisation to determine the level of expected harm of the introduced species
- The higher the level of harm, the stricter the Standard requirements and the greater the consequences for Non-conformity



# What farms need to do



No farming of transgenic species



Implement precautionary escape prevention measures that, at a minimum, include suitable containment structures for the species, their life stage and the environmental conditions in which the farm is operating



Regularly check for escapees outside the culture units, and where found, remove captured fish and take measures to reduce the risk of escapes during fish handling and movement



Using EICAT classification, assess the risk for their species and realm in which the farm is operating and, depending on the risk level, implement the additional requirements - more details on next slide



Annual reporting of the Total Escape Count to ASC, in accordance with ASC data submission procedures



Upon exceedance of the metric escape limits set out in the ASC Farm Standard, inform the Conformity Assessment Body (CAB) and ASC within 7 calendar days upon detection

# In Depth: Alien Species

## Additional requirements for species categories

Least harmful: Least strict requirements

Most harmful: Strictest requirements

### EICAT Category – Data Deficient (DD), Minimal Concern (MC), Minor (MN)

- Improve overall escape control and awareness of observed escape risks at farm level, thereby decreasing the chance of minor harm to the native biodiversity
- No exceedance of Escape Total

### EICAT Category – Moderate (MO)

- Requires escape prevention measures that respond to observed escape risks as well as accurate counting
- The consequences of exceeding the Escape Total is a major non-compliance or certificate withdrawal if repetitive

### EICAT Category – Major (MR), Massive (MV)

- Requires escape prevention measures that respond to observed escape risks as well as accurate counting
- The consequences of exceeding Escape Total is certificate withdrawal
- Progression towards escape-proof systems and/or the culture of sterile/triploid animals is required within six years upon effective date of the ASC Farm Standard

# Improvements on current species standards

The ASC Farm Standard addresses alien species and native biodiversity more rigorously

## Existing species standards

- No evaluation of harmfulness of an alien species
- No or inconsistent metric limits
- No differentiation of requirements despite different harm level(s)
- No prescribed consequences for Non-conformity

## New ASC Farm Standard

- **Independent EICAT evaluation of harm of a species**
- **Escape limits for all fish species: 300 pcs for salmon, 6% for others**
- **Escalating requirements and consequences for non-conformity based on risk of impact**

# The benefits

## Why ASC is taking this approach

Promotes responsible farming by limiting impacts on environments and animals



A scientific basis to guide farming practices



More reliable methodologies



Focus on species that have a proven impact on native biodiversity



# The questions

## Consultation questions

1

ALL

**To what extent are the requirements in this criteria clear?**

Reasons for finding clarity/lack of clarity

2

ALL

**To what extent will there be challenges in implementing these requirements?**

What challenges do you foresee?

3

PRODUCERS

**What cost will be involved in meeting these requirements?**

Scale (reduced costs → similar costs → moderate additional costs  
→ significant additional costs)

What are the main sources of additional cost?

4

CABs

**To what extent are these requirements auditable?**

Please detail any challenges you foresee with auditing this criterion

5

ALL

**What suggestions do you have for improving these requirements?**

# The questions

## Consultation questions

The Farm Standard uses the independent, scientific EICAT categorisation to determine the harmfulness of an alien species.

To what extent do you agree with the approach taken here by ASC?	All
Reasons for agreement/disagreement	

If categorisation based on EICAT evaluation finds that a species is moderately, majorly or massively harmful then the Farm Standard sets out additional, stricter requirements.

To what extent do you agree with the approach taken here by ASC?	All
Reasons for agreement/disagreement	



# The questions

## Consultation questions

**The Farm Standard does not include escalated requirements for the farming of species classed as data deficient or of minimal harm**

To what extent do you agree with the approach taken here by ASC?	All
Reasons for agreement/disagreement	

# How to get involved?

Email: [consultation@asc-aqua.org](mailto:consultation@asc-aqua.org)



Materials are available in English, Spanish, Vietnamese, French, German, Turkish, Japanese, Korean



In depth topic slides on:

[2.4 Alien Species](#)

[2.6 Water Quality](#)

[2.10 Energy Use & GHG Emissions](#)

[2.14 Pre-grow Out](#)

[3.9 Working Hours](#)

[4.3-4.4 Fish and Shrimp Health and Welfare - Slaughter](#)



ASC Farm Standard Slides ([link](#))



Full ASC Draft Farm Standard ([link](#))



Survey ([link](#))




Setting The  
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# Indicators

<p><b>Indicator 2.4.1</b></p>	<p>The UoC shall not stock <b>transgenic</b> animals.</p>
<p><b>Indicator 2.4.2</b></p>	<p>The UoC shall implement Precautionary <b>Escape</b> Prevention Measures that include as a minimum the following;</p> <ol style="list-style-type: none"> <li>1. the installation, inspection and maintenance of suitable containment structures for the species and life stages in culture and the environmental conditions in which the farm is operating;</li> <li>2. regularly checking for escapees outside the culture units, and where found, remove captured fish;</li> <li>3. measures to reduce the risk of escapes during fish handling and movement within the UoC.</li> </ol>
<p><b>Indicator 2.4.3</b></p>	<p>The UoC shall determine the EICAT Category and corresponding Confidence Level for their species and realm in which the farm is operating (see Table 1 in <b>Appendix 6</b>).</p>
<p><b>Indicator 2.4.4</b></p>	<p><i>Indicator scope: farms with EICAT Category DD/MC/MN, MO, MR/MV</i>          The UoC shall implement the Additional Requirements associated to the EICAT Category (associated indicators 2.4.7 to 2.4.32 can be found in <b>Appendix 6</b> tables 3, 4 and 5.)</p>

# Indicators

<p><b>Indicator 2.4.4</b></p>	<p><i>Indicator scope: farms with EICAT Category DD/MC/MN, MO, MR/MV</i>          The UoC shall implement the Additional Requirements associated to the EICAT Category (associated indicators 2.4.7 to 2.4.32 can be found in <b>Appendix 6</b> tables 3, 4 and 5.)</p>
<p><b>Indicator 2.4.5</b></p>	<p><i>Indicator scope: EICAT Category MO, MR/MV</i>          The UoC shall, upon exceedance of the metric limits, inform the Conformity Assessment Body (CAB) and ASC within 7 calendar days upon detection.</p>
<p><b>Indicator 2.4.6</b></p> 	<p>The UoC shall annually report to ASC the Total Escape Count, in accordance with ASC data submission procedures.</p>
<p><b>Indicator 2.4.33</b></p>	<p>The UoC shall only stock salmon smolts produced in open cage culture if the supplier:</p> <ol style="list-style-type: none"> <li>1. operates in a region where indigenous salmonids of the same species being cultivated are present; and</li> <li>2. is certified to the ASC Farm Standard.</li> </ol>

**Table 3: Additional Requirements: Data Deficient (DD), Minimal Concern (MC) or Minor (MN) risk.**

Realm Risk:	Data Deficient (DD)	Minimal Concern (MC)*	Minor (MN)*	Assurance response:
<p><i>Realm risk level Minimal/Minor, or realm risk level Moderate with a confidence score &lt;0.2 (risk is considered unlikely). If the Ecoregion has a confirmed risk level higher than Minimal/Minor, then this shall be followed.</i></p> <p><i>Exemptions to the Minimal/Minor Category:</i></p> <ul style="list-style-type: none"> <li><i>If the Impact Mechanism is Hybridisation, UoCs that culture sterile/triploid stock are exempted from the Additional Requirements.</i></li> <li><i>UoCs that can demonstrate that their culture system prevents successful escapes (i.e. fish surviving), are exempted from the Additional Requirements.</i></li> </ul>				
<p><b>Indicator 2.4.7**</b></p>	<p>The UoC shall not exceed the Total Escape Count<sup>171</sup> per production cycle, or year (whichever is stricter), as per below:</p> <ul style="list-style-type: none"> <li>• Salmon: 300 pcs</li> <li>• Other fish species: 6%</li> </ul>			<p>Regular categorization of non-conformities</p>
<p><b>Indicator 2.4.8**</b></p>	<p>The UoC shall not have more than one Mass Escape Event per six years, defined as:</p> <ul style="list-style-type: none"> <li>• Salmon: &gt;5000 pcs</li> <li>• Other fish species: &gt;6% Total Escape Count</li> </ul>			

**Table 3 continued**

Realm Risk:	Data Deficient (DD)	Minimal Concern (MC)*	Minor (MN)*	Assurance response:
<b>Indicator 2.4.9**</b>	The UoC shall carry out a site-specific handling and containment risk assessment, approved by a member of senior management, according to the following: <ul style="list-style-type: none"> <li>• Incorporating all steps of the risk management matrix in Table 6</li> <li>• Incorporating all handling steps and parameters ensuring containment in Table 7</li> </ul>			Regular categorization of non-conformities
<b>Indicator 2.4.10**</b>	The UoC shall train all relevant staff on handling procedures to minimise escapes due to handling errors.			
<b>Indicator 2.4.11**</b>	The UoC shall log handling/containment accidents and near misses.			
<b>Indicator 2.4.12**</b>	<i>Indicator scope: tilapia producers only</i> The UoC shall culture all-male or sterile fish.			

**Table 4: Additional Requirements: Moderate (MO) risk.**

Realm Risk:	<b>Moderate (MO)</b>	<b>Assurance response:</b>
<p><i>*Realm risk level Moderate, or realm risk level Major with a confidence score &lt;0.2 (risk is considered unlikely). If the Ecoregion has a confirmed risk level higher than Moderate, then this shall be followed.</i></p>		
<p><i>**Exemptions to the Moderate Category:</i></p> <ul style="list-style-type: none"> <li>• <i>If the Impact Mechanism is Hybridisation, UoCs that culture sterile/triploid stock are exempted from the Additional Requirements.</i></li> <li>• <i>UoCs that can demonstrate that their culture system prevents successful escapes (i.e. fish surviving), are exempted from the Additional Requirements.</i></li> </ul>		
<p><b>Indicator 2.4.13**</b></p>	<p>The UoC shall not exceed the Total Escape Count<sup>172</sup> per production cycle, or year (whichever is stricter), as per below:</p> <ul style="list-style-type: none"> <li>•Salmon: 300 pcs</li> <li>•Other fish species: 6%</li> </ul>	<p>Default non-conformity:</p> <ul style="list-style-type: none"> <li>• major NC;</li> <li>• n case of repetitive major NCs in the same, or consecutive, certificate cycle – certificate withdrawal</li> </ul>
<p><b>Indicator 2.4.14**</b></p>	<p>The UoC shall not have more than one Mass Escape Event per nine years, defined as:</p> <ul style="list-style-type: none"> <li>•Salmon: &gt;5000 pcs</li> <li>•Other fish species: &gt;6% Total Escape Count</li> </ul>	

**Table 4 continued**

Realm Risk:	<b>Moderate (MO)</b>	<b>Assurance response:</b>
<b>Indicator 2.4.15**</b>	The UoC shall count with a minimum of 98% accuracy.	Default non-conformity: <ul style="list-style-type: none"> <li>• major NC</li> </ul>
<b>Indicator 2.4.16**</b>	The UoC shall carry out a site-specific handling and containment risk assessment, approved by a member of senior management, according to the following: <ul style="list-style-type: none"> <li>• Incorporating all steps of the risk management matrix in Table 6</li> <li>• Incorporating all handling steps and parameters ensuring containment in Table 7</li> </ul>	
<b>Indicator 2.4.17**</b>	The UoC shall implement measures for the following situations: <ul style="list-style-type: none"> <li>• Preventive measures risks determined to be Low,</li> <li>• Change of handling process / containment system for risks determined to be Medium or High, and</li> <li>• Contingency measures for any incidence of escape.</li> </ul>	
<b>Indicator 2.4.18**</b>	The UoC shall review and where needed revise the risk assessment (Indicator 3.5.2) and respective measures (Indicator 3.5.3), with the following frequency: <ul style="list-style-type: none"> <li>• Prior to starting a new farm activity,</li> <li>• Following feedback on major issues from employees (Indicators 3.1.3, 3.12.1, 3.12.8),</li> <li>• Following accidents or near misses, and</li> <li>• Annually.</li> </ul>	



**Table 4 continued**

Realm Risk:	<b>Moderate (MO)</b>	<b>Assurance response:</b>
<b>Indicator 2.4.19**</b>	The UoC shall train all relevant staff on handling procedures to minimise escapes due to handling errors.	Default non-conformity: <ul style="list-style-type: none"> <li>• major NC</li> </ul>
<b>Indicator 2.4.20**</b>	The UoC shall log handling/containment accidents and near misses.	
<b>Indicator 2.4.21**</b>	The UoC shall, where commercially available, use mono-sex culture. For tilapia producers, the UoC shall culture all-male or sterile fish.	
<b>Indicator 2.4.22**</b>	The UoC shall, for relevant species, prevent in-culture spawning.	

**Table 5:** Additional Requirements for producers that produce species in areas ranked as Major (MR) or Massive (MV) risk.

Realm Risk:	Major (MR)/Massive (MV)	Assurance response:
<p><b>**Exemptions to the Major/Massive Category:</b></p> <ul style="list-style-type: none"> <li>• If the Impact Mechanism is Hybridisation, UoCs that culture sterile/triploid stock are exempted from the Additional Requirements.</li> <li>• UoCs that can demonstrate that their culture system prevents successful escapes (i.e. fish surviving), are exempted from the Additional Requirements.</li> </ul>		
<p><b>Indicator 2.4.23**</b></p>	<p>The UoC shall not exceed the Total Escape Count<sup>173</sup> per production cycle, or year (whichever is stricter), as per below:</p> <ul style="list-style-type: none"> <li>• Salmon: 300 pcs</li> <li>• Other fish species: 6%</li> </ul>	<p>Default non-conformity:</p> <ul style="list-style-type: none"> <li>• certificate withdrawal</li> </ul>

**Table 5 continued**

Realm Risk:	Major (MR)/Massive (MV)	Assurance response:
<b>Indicator 2.4.24**</b>	The UoC shall count with a minimum of 98% accuracy.	Default non-conformity: • major NC
<b>Indicator 2.4.25**</b>	The UoC shall carry out a site-specific handling and containment risk assessment, approved by a member of senior management, according to the following: •Incorporating all steps of the risk management matrix in Table 6 •Incorporating all handling steps and parameters ensuring containment in Table 7	
<b>Indicator 2.4.26**</b>	The UoC shall implement measures for the following situations: •Preventive measures risks determined to be Low •Change of handling process/containment system for risks determined to be Medium or High, and •Contingency measures for any incidence of escape.	
<b>Indicator 2.4.27**</b>	The UoC shall review and where needed revise the risk assessment (Indicator 3.5.2) and respective measures (Indicator 3.5.3), with the following frequency: •Prior to starting a new farm activity, •Following feedback on major issues from employees (Indicators 3.1.3, 3.12.1, 3.12.8), •Following accidents or near misses, and •Annually.	

**Table 5 continued**

Realm Risk:	Major (MR)/Massive (MV)	Assurance response:
<b>Indicator 2.4.28**</b>	The UoC shall train all relevant staff on handling procedures to minimise escapes due to handling errors.	Default non-conformity: <ul style="list-style-type: none"> <li>• major NC</li> </ul>
<b>Indicator 2.4.29**</b>	The UoC shall log handling/containment accidents and near misses.	
<b>Indicator 2.4.30**</b>	The UoC shall, where commercially available, use mono-sex culture. For tilapia producers, the UoC shall culture all-male or sterile fish.	
<b>Indicator 2.4.31**</b>	The UoC shall, for relevant species, prevent in-culture spawning.	
<b>Indicator 2.4.32**</b>	The UoC shall use triploid or otherwise sterile stock, or, produce in escape-proof systems, within six years upon effective date of the ASC Farm Standard.	

# Thank you



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