



## Frequently Asked Questions (FAQs)

ASC Salmon Standard v1.4 – FAQ version last edited on 8 February 2023

*Sea Lice: Revision of ('old' v1.3) Criterion 3.1 and indicator 3.1.7*

### Table of Contents

1. Why were the sea lice-related requirements reviewed and updated?.....	2
2. What are the key changes in ASC Salmon Standard v1.4's Criterion 3.1? .....	2
3. What does “sensitive periods” mean? .....	4
4. Why did ASC revise the current global metric limit of 0.1 mature sea lice per fish? .....	4
5. How do the new requirements improve sea lice management on farms compared to the previous ones? .....	5
6. Are there exemptions from treatment and thus reducing sea lice load on farm in the revised standard? .....	5
7. As there are exemptions to the treatment of sea lice levels, how does ASC make sure that it is not used as an “excuse” to exceed limits without consequences? .....	5
8. What does cancellation mean for these salmon farms? What consequences does it have?.....	6
9. Why are there no limits for non-sensitive periods? .....	6
10. Who was part of the TWG and the TCG? .....	6
11. Will the sea lice thresholds change if regional regulations change? .....	6

## 1. Why were the sea lice-related requirements reviewed and updated?

As a full ISEAL Alliance member, the Aquaculture Stewardship Council (ASC) is required to review and revise each standard at least every five years where necessary. The previous revision of the ASC Salmon Standard had ended in July 2019. This revision of the ASC Salmon Standard (*v1.4: released September 5th 2022 with effective date February 1st 2023*) had a restricted scope to address issues with the application of the sea lice management and thus focused on Criterion 3.1 (“Introduced or amplified parasites and pathogens”).

The potential impact of sea lice on wild salmonid populations is a pressing issue for the salmon industry and for its stakeholders. The revised requirements under Criterion 3.1 address these concerns by establishing best practice in managing potential disease and parasite risks to wild populations. The ASC indicators are therefore referencing “areas with wild salmonids” defined as farm sites located within 75 kilometres of a wild salmonid migration route or habitat.

Globally and beyond the indicators revised in this latest version, there are several other indicators which also require participation in Area Bay Management (ABM) scheme, collaboration with NGOs, academics and governments to measure possible impacts on wild fish stocks, sea lice monitoring data and the public disclosure of those results etc. Taken holistically and altogether, the ASC Salmon Standard’s v1.4 sea lice requirements are the most demanding within the realm of independent 3<sup>rd</sup> party certification, requiring stakeholder engagement, transparency and accountability, and measurable impacts-driven metric performances to be met. The sum of the above goes far beyond any jurisdictional and legal requirements.

## 2. What are the key changes in ASC Salmon Standard v1.4’s Criterion 3.1?

- **Coverage of new sea lice species**

A new species of sea lice is being monitored apart from the *L. salmonis*, which is the major species found in most countries (such as in Norway, for example). The revised standard includes a requirement to publicly report the species *Caligus* on farms in British Columbia, Canada, within 7 days of sampling. The latter supports a better understanding of the transmission and abundance of *Caligus* and thus inform further revisions of this indicator.

- **A consistent and clear sea lice sampling protocol that ASC certified salmon farms need to comply with**

A standardised sea lice sampling protocol is required to improve the consistency of data collection and its utility for meaningful statistical analysis and reporting. In the previous version of the ASC Salmon Standard, there was no sampling protocol in place.

- Frequency: Weekly sampling during the sensitive period. Monthly sampling the rest of the year
- Number of cages: At least 50% of cages shall be sampled over a 2-week period, with the entire farm sampled over at least a 6-week period.
- Number of fish per cage: A minimum of 10 fish per cage should be sampled.
- Sea lice stage: At a minimum provide data on mobiles and adult females
- Fish welfare (exemption from sampling): The veterinarian or fish health professional may exempt fish from being sampled during a certain period of time within the sensitive period if local regulations permit. The reason for the exemption shall be documented. Reasons for exemption may include:
  - Immediately after smolting and stocking.
  - Undergoing a disease event and/or being treated (including treatment for sea lice). In case the reason for the exemption is related to fish treatment, the maximum duration for the exemption shall be 2 weeks.
  - During specific environmental events (e.g. water temperature [i.e. below 4°C], low oxygen, algal bloom, jellyfish event).

- **Regional approaches for setting maximum on-farm sea lice levels**

Regional sea lice limits and sensitive periods are set, in replacement of the global “0.1 adult female sea lice per fish” limit. Please see table below for reference:

Region/Jurisdiction	Sea Lice Thresholds ( <i>L. salmonis</i> )*	Sensitive Period**
Canada (West Coast)	3 motile***	1 <sup>st</sup> March to 30 <sup>th</sup> June
Faroe Islands	0.5 adult female	1 <sup>st</sup> May to 31 <sup>st</sup> July
Iceland	0.5 mature female	Not established
Ireland	0.3 ovigerous female	1 <sup>st</sup> March to 31 <sup>st</sup> May
Norway	0.2 adult female	Nord-Trøndelag and southwards: weeks 16 to 21 Nordland, Troms and Finnmark: week 21 to 26
Scotland	0.5 adult female****	1 <sup>st</sup> February to 30 <sup>th</sup> June****

\* In situations where there are no established limits in regions/jurisdictions, ASC requires the use of the most rigorous limit in effect at that point in time (e.g. 0.2 adult female).

\*\* In situation where it is not established, the length and timing of the sensitive period should be specified according to a defined criterion (e.g. when juveniles are in proximity to cages) using the latest knowledge.

\*\*\* Motile includes adult *L. salmonis* females (with or without egg strings) and other motile *L. salmonis* (including adult males, and preadults). Mobile is considered a synonym of motile.

\*\*\*\*From the [Code of Good Practice for Scottish Finfish Aquaculture \(CoGP\)](#).

- For three farming regions (Canada, Norway and Faroe Islands) the 0.1 sea lice level has already been replaced by the application of locally applicable Variance Requests\*. For the rest of the regions, in practice, the proposed sea lice limits (only the number) are higher than the former limit.

\*A Variance Request (VR) is a request to adapt an ASC indicator/performance level to a unique local circumstance that the ASC Standard(s), being global, were not able to, for whatever reason, foresee during the Standard Setting Process. There are currently four approved variances for this indicator which align certification requirements with the local regulation.

- **A requirement for farms which reach sea lice thresholds to report exceedance and take action to reduce their sea lice load. Specifically:**
  - The farm needs to inform the Conformity Accreditation Body (CAB; i.e. the auditor and certifier) of not being able to keep the sea lice levels below the thresholds on the working day following sampling
  - The farm must take action to reduce sea lice levels to within the threshold level within 21 days of the exceedance
  - If the farm fails to bring sea lice levels below the threshold within 21 days\*, the farm shall not sell the fish as ASC certified and the farm certificate shall be cancelled.

\* The veterinarian or fish health professional may exempt fish from being treated, and therefore affect the farm's ability to reduce the on-farm sea lice levels below the threshold within 21 days upon exceedance, during a certain period of time within the sensitive period. The reason for the exemption shall be documented. Grounds for exemption may include: specific environmental events (extreme weather event, water temperature [i.e. below 4 oC], low oxygen, algal bloom, jellyfish event), unforeseen increases in on-farm lice levels, documented logistical roadblocks or delays for implementing treatment.

### 3. What does “sensitive periods” mean?

“Sensitive periods” refer to the time span juvenile wild salmonids are outmigrating from rivers to the sea. This is the period when salmonids are at their most vulnerable stage, and that period differs from region to region. These periods are prescribed for each region in the new version of the Salmon Standard Appendix III-3.

### 4. Why did ASC revise the global metric limit of 0.1 mature sea lice per fish?

- a) The indicator on sea lice limits was originally developed more than ten years ago. When first established, the “0.1 limit” did not have a scientific justification to support that specific level. It was therefore time to establish a Technical Working Group (TWG) of renowned experts to revise whether the previous set limit still reflects best practice and latest science development. The TWG concluded that the issue of sea lice threshold is specific to species, population, and geographic regions, and thus needs a regional approach.
- b) Counting accuracy at such a low level as required by the current indicator (i.e. 0.1 mature sea lice per fish) is extremely difficult, even with large sample sizes. This could lead to errors and, consequently, management actions (like chemical treatments) based on unreliable information. The former indicator on sampling did not specify a standardised sea lice sampling protocol. In practice, these protocols varied across regions. An analysis of sampling protocols and data from different jurisdictions showed a lack of consistency when comparing sea lice levels between farms and regions and when evaluating the effectiveness of sea lice management strategies. The view of the TWG was that with improvement on standardised sampling protocol and moving to higher thresholds, counting accuracy will improve.
- c) Uncertainty existed on whether the approach of establishing a maximum lice level for one species, life stage, and gender is the most appropriate for helping to protect wild salmonid populations present in different regions. The revised standard addresses this issue through setting regional sea lice limits and reporting requirements for another sea lice species (*Caligus*).
- d) The former requirements did not include considerations on farmed fish welfare impacts of sea lice control measurements.

While the original intent was good based on knowledge of the time, experience over the last few years has shown that implementing the 0.1 sea lice limit globally and consistently was not realistic. In practice, the issue of regional applicability has led to variance requests (VRs) in three jurisdictions with the consequence that farms in these countries were already referring to local regulatory sea lice limits requirements instead of the requirement set in the then ASC Salmon Standard.

All the above factors led to the conclusion that the Salmon Standard indicator 3.1.7 needed to be revised and reconsidered holistically.

## 5. How do the new requirements improve sea lice management on farms compared to the previous ones?

Since regional limits were set to reflect different environmental and biological conditions (e.g. salmonid and sea lice species, sea lice presence and host profiles, water temperatures, ecosystems), the combination of the revised requirements deliver a significant improvement leading to improved performances and positive impacts. It is thus not meaningful to make comparisons based on the 'old 0.1 metric' which was not linked to any peer-reviewed research findings.

The new requirements ask farms to disclose to CABs when they reach or exceed the sea lice thresholds and require immediate action by the farms to bring sea lice levels below the thresholds within a timeline of 21 days (also considering the potential exemptions cited in above #2, and below in #6).

This approach is therefore more effective in protecting wild juvenile salmonids populations than the previous requirements' approach. The new requirements clarify the consequences of farms failing to maintain sea lice levels below the established threshold. The new requirements are also explicit regarding the CABs' approach to a non-conformity related to an exceedance. These combined elements go beyond legal requirements.

## 6. Are there exemptions from treatment and thus reducing sea lice load on farm in the revised standard?

Yes: the veterinarian or fish health professional may exempt fish from being treated, and therefore affect the farm's ability to reduce the on-farm sea lice levels below the threshold within 21 days upon exceedance, within the sensitive period. In case of an exemption, the farm shall reduce the on-farm sea lice levels below the threshold within 14 days from the first day of treatment.

The reason for the exemption shall be explicitly documented:

- Specific environmental events (extreme weather event, water temperature [i.e. below 4°C], low oxygen, algal bloom, jellyfish event)
- Unforeseen increases in on-farm lice levels
- Documented logistical roadblocks or delays for implementing treatment

## 7. As there are exemptions to the treatment of sea lice levels, how does ASC make sure that it is not used as an "excuse" to exceed limits without consequences?

The standard is very explicit on the conditions for exemptions. Only veterinarians or fish health professionals, thus experts with professional duty, can exempt fish from being treated. Every exemption needs to be documented and the standard is very clear on what reasons for exemptions might be.

## 8. What does cancellation mean for these salmon farms? What consequences does it have?

The new requirement 3.1.11 specifies that a product is not eligible to be sold as certified and the certificate shall be cancelled for farms that are not able to bring down the sea lice levels below the threshold within a specific timeframe. Cancelling the certificate in this case means that no salmon with harvest dates after the cancellation classifies as being certified and thus cannot be sold as certified. It is only when a new generation of salmon is stocked that the farm can apply again for certification, and the new year class will count as certified, as long as it complies with the requirements.

The loss of ASC certification (which is also made public) is an important action, and assumingly one which could have serious repercussions for the farmer and in their interest to avoid. This also highlights the stringency and transparency of the ASC certification programme, and reflects how seriously ASC considers sea lice management issues and challenges.

Thus, the new requirements give customers and consumers more assurance that fish with an ASC label is actually staying within the established sea lice thresholds, thus reducing their potential impact on wild salmonids.

## 9. Why are there no limits for non-sensitive periods?

The reason for focusing on sensitive periods is that wild salmonids are then present in greater numbers and are at their most vulnerable stage (i.e. out-migrating juveniles). It is thus important to protect disease and parasite spread during this period. Outside of these periods, the impact is considerably lower. Having limits during these periods might lead to unnecessary and more frequent treatments with the risk of resistance development in sea lice while not adding to the intention of reducing key impacts.

## 10. Who was part of the TWG and the TCG?

The Technical Working Group (TWG) was composed of a (core) Technical Group (TG) and a (wider) Technical Consultation Group (TCG) enabling a staged consultation approach prior to full public consultation. The composition of all technical working groups related to ASC are publicly accessible on the ASC website: <https://www.asc-aqua.org/wp-content/uploads/2022/01/TWG-Member-List-Salmon-Standard-Review-Sea-Lice.pdf>

## 11. Will the sea lice thresholds change if regional regulations change?

ASC will actively monitor the regulations and sea lice research with a formal six-monthly reporting cycle. Where changes to regulation are introduced or science suggests changes are needed, ASC will initiate a standard revision process following their publicly available Standard Setting Procedure.

The six-monthly reviews will:

- Monitor regional/jurisdictional changes to current regulations/industry codes. The monitoring will be done at set intervals (i.e. every 6 months) and use existing engagement channels with the different regulators/industry code owners. An entry will be logged in the ASC Issue Log where changes are identified;
- Monitor new knowledge relevant to the thresholds and sea lice impacts on wild salmonid populations from published scientific studies and engagement with academia. An entry will be logged in the ASC Issue Log where relevant new knowledge is identified;

- Assess farm feedback in relation to the Area Based Management scheme requirements of the Salmon Standard in consideration of the results of wild salmonid monitoring and how these inform the threshold level for on-farm sea lice levels during sensitive periods;
- Assess feedback received from stakeholders logged in the ASC Issue Log;
- Assess relevant Variance Request submissions;
- Assess insights from ASC's Monitoring and Evaluation Programme regarding impacts of the sea lice requirements.

ASC remains open (as highlighted in the [ASC Salmon Standard](#)) to evidence that would compel us to change these levels. The next review is scheduled for August 2023. The review will inform whether a change is needed. Stakeholders may send any such scientific evidence and comments to [standards@asc-aqua.org](mailto:standards@asc-aqua.org) as they will be taken into consideration at the next review.