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Global Review of the Aquaculture Stewardship Council's Salmon Standard

photo: Kelly Roebuck

SUMMARY REPORT

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Ecology Action Centre

LIVING OCEANS

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TABLE OF CONTENTS

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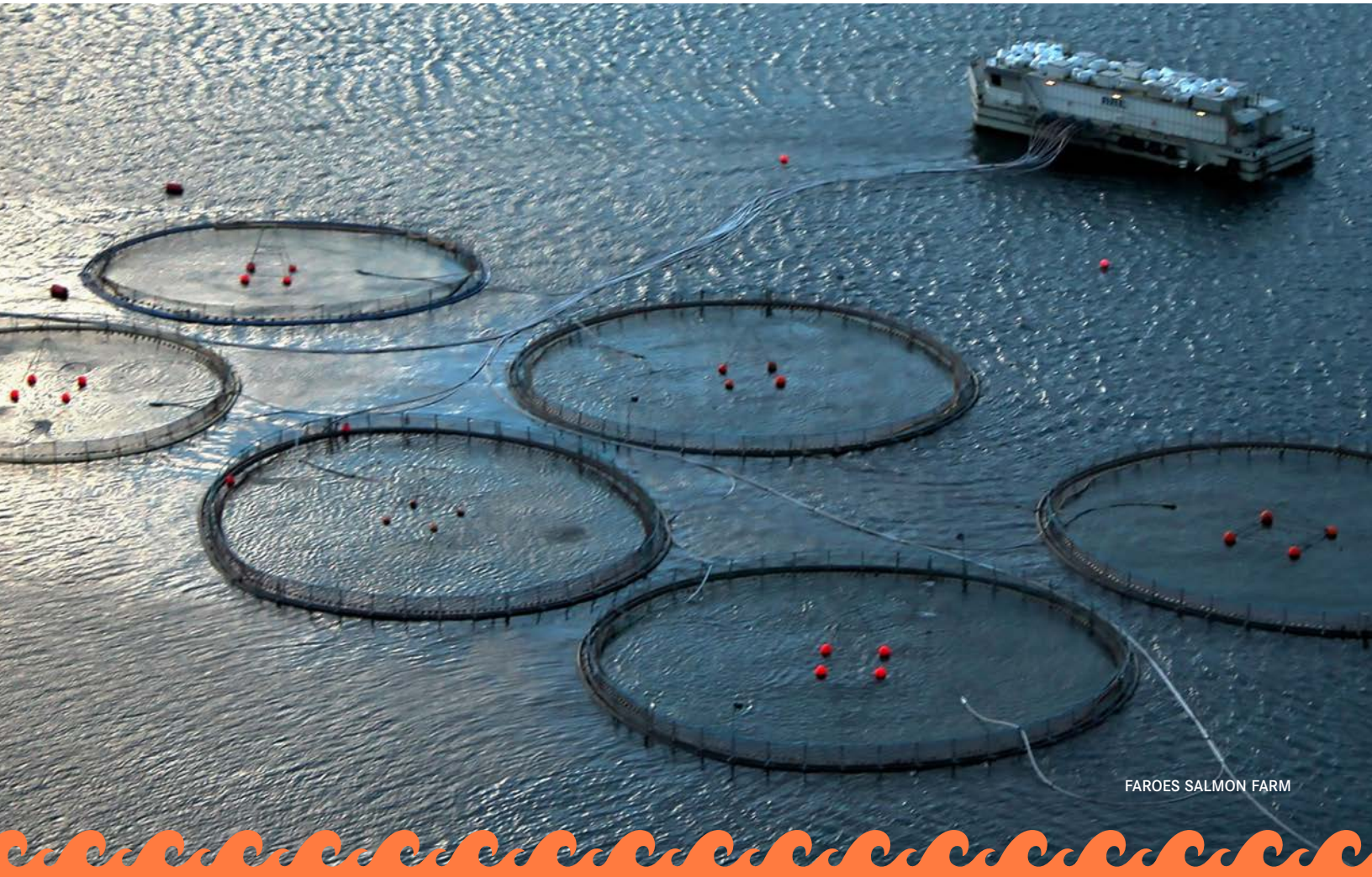


FAROES SALMON FARM

EXECUTIVE SUMMARY

The Aquaculture Stewardship Council's (ASC) "responsibly farmed" eco-label is considered the gold standard of farmed seafood eco-certifications. The organisation's theory of change relies on consumer confidence in the label driving increased demand and premium pricing for ASC-certified products; and that demand, in turn, drives aquaculture improvements toward certification. Confidence in the label is inspired by ASC's assurance that its standards are designed to reward only the top-performing producers; by the integrity of its transparent and inclusive processes and the assurance of farm-specific and third-party auditing, as well as the commitment to continuous improvement.

The ASC species standards are said to define global best practices for managing environmental and social impacts. Salmon has become the ASC's top commodity in terms of the number of farms certified, by production volume and presumably by value. At the time of the Salmon Standard's launch, best practices were defined by the top-performing 15 per cent of all salmon farms globally. Today, with 27 per cent of the industry by volume and about 11 per cent of the total number of salmon farms certified, the ASC has reached the point where the top performers are likely among the certified. Meanwhile, industry has indicated its intention to increase the number of certified farms substantially and quickly. Members of the Global Salmon Initiative,[i] for example, are focused on 100 per cent enrolment by 2020. In response to the pressure to admit more farms into the program, it is crucial for the ASC to hold the bar at best practices as defined in their theory of change, which underpins the label's credibility.

This SeaChoice review looks at every audit filed for each of the 257 certified salmon farms from the first farm certified in 2014 through March 15, 2018. It examines both the conformance of farms with the Salmon Standard and aspects of farm performance based in part on data external to the audits. Finally, it examines changes being made to the Salmon Standard and assesses the impact of those changes.

The review finds that most ASC-certified salmon farms successfully meet several key environmental indicators of the Salmon Standard. For example, 95 per cent of farms meet the required forage fish dependency ratios for fishmeal and fish oil. In fact, ASC farms have improved their fishmeal inclusion rates over time. The parasiticide use limit is also met by 96 per cent of farms. Most farms are successful in meeting limits on escapes, lethal incidents involving marine mammals, antibiotic use and viral disease mortality. In addition, public reporting by certified farms on key Standard metrics is found to be relatively effective. In many cases, the posting of this data goes beyond what local regulatory agencies require of the industry.

The review also finds, however, that farms are far less consistent in meeting several critical Standard requirements – including participating in an area-based management (ABM) scheme, on-farm sea lice counts and sea lice monitoring on wild salmon. For example, no farms comply with all the ABM requirements as written in the Standard's appendix. Some farms recorded on-farm sea lice levels up to 21 times the ASC threshold. For Atlantic regions, farms are treated as exempt from needing to demonstrate that some sort of robust and publicly available monitoring of sea lice levels on wild out-migrating salmonid juveniles is occurring (whether it be conducted via industry, regulatory bodies or independent researchers). Such requirements are intended to help safeguard wild salmon from potential farm-derived impacts.

Furthermore, the Salmon Standard asserts that farms "must meet 100 per cent of the [Standard] requirements" in order to be certified but, in reality, this is not the case. This is a really impressive statement that instils trust in consumers interested in making environmentally responsible food choices. However, auditing processes - including non-conformities, variances and interpretations - mean that few certified farms follow the Standard as written. Additionally, the Standard itself is at risk from being weakened by operational reviews. All together, these realities are undermining the organisation's theory of change by eroding the best practices codified in the Standard.

Non-conformities, where a farm fails to conform with a Standard requirement, are regularly raised and farms can be certified with 'open' minor non-conformities. At time of writing, auditors have raised a total of 3,726 non-conformities

[i] The Global Salmon Initiative, representing around 55 per cent of the salmon aquaculture industry, have pledged to be 100 per cent ASC certified by 2020. As of April 2018, over 40 per cent of GSI members are certified.

across 456 audits (representing 257 farms). The average initial farm audit detected 2.33 major and 9.30 minor non-conformities. **Post-certification, most farms failed to conform fully to the Standard**; non-conformities were regularly detected during surveillance and recertification audits (an average of 0.98 major, 2.82 minor and 1.31 major, 4.68 minor non-conformities respectively). Additionally, a number of audits failed to raise a non-conformity where evidence or metrics indicate a non-conformity ought to have been raised but wasn't. Others failed to resolve, or 'close', non-conformities within the stipulated timeframe outlined by the ASC. It was also found that **certified farms in major non-conformance with the Standard can sell their product with the ASC logo**.

Variances, which are alterations to the Standard requested by auditors and approved by the ASC Variance Request (VR) Committee, can represent significant lowering of the Standard criteria and enable farms that would otherwise be non-compliant to be certified. Over half of the ASC's variances to all eight of its species Standards related to the Salmon Standard. **Only 21 per cent of certified farms followed the Standard as written** (i.e. without varied criteria), and the average salmon farm audit cited 2.4 variances (range = 0 to 9). Variances that deferred to government regulations were found to be weakening the intent of the requirement– to hold ASC farms to a higher Standard than that imposed by local regulators. The process for granting a variance is not transparent and the degree of scientific or technical consultation undertaken by the VR Committee is discretionary. Stakeholders are not engaged. Decisions are published after they have taken effect and have occasionally become precedent-setting, defacto regional changes to the Standard.

Some interpretations of the Standards or the auditors' guidance document, known as the Certification and Accreditation Requirements (CAR), sought by auditors through ASC's Interpretation Platform are arguably better suited to an operational review. For example, the definition of the 'unit of certification' subject to audit was interpreted to exclude intermediary farms (early grow-out farming stages) from the scope of the audit. This confounds the application of numerous Standard indicators that require evidence from a full production cycle to demonstrate conformance. Consequently, **up to a year of a farmed salmon's production cycle can be omitted from conformance assessments**, with unknown consequences for the amount of parasiticide or other chemicals and therapeutants that might be associated with the certified fish during intermediary stage production.

Farms that are in major non-conformance with the Standard are required to 'close out' the non-conformity before certification is granted or within three months if already certified. However, another ASC interpretation contravenes this by allowing major non-conformities to indefinitely remain open (with an action plan and assessed progress, but no specified deadlines). This interpretation violates the CAR stipulated deadlines for closing out non-conformities and for initiating suspensions. **The result is that ASC labelled product can enter the marketplace despite not meeting all criteria for certification, clearly breaching the Standard's stated 100 per cent conformance requirement.**

The operational review process is intended to fine-tune the Standard and the CAR to ensure relevance and efficacy in attaining the ASC's goals and is the most inclusive and transparent of the vehicles available for amending the Standard. However, it can be difficult for stakeholders to understand why a review is being undertaken or how solutions are being developed. For example, the current operational review of the Parasiticide Treatment Index (PTI) was apparently undertaken to remove a perceived barrier to certification: in that too few chemical treatments to control parasites were being allowed by the Standard. Yet our review found 96 per cent conformance with the indicator among certified farms, representing 27 per cent of global production and 11 per cent of farms. This strongly suggests that the PTI is set at just the right level to reflect best practices, whereas the proposal developed for **amending the PTI represents a very substantial weakening of this indicator, allowing up to a 450 per cent increase in the amount of parasiticide allowed** to be used by certified farms. The proposal also shifts the Standard from best practice certification to one more aligned with an 'aquaculture improvement project' approach, with some regions allowed up to 15 years to reach the proposed parasiticide global metric.

It is critical that eco-certifications are leading to genuine changes on the water and not simply rewarding business as usual. Otherwise, eco-certifications are at risk of losing credibility and consumer trust. SeaChoice calls on the ASC to immediately correct such amendments that weaken the Standard's stated goal of best practice certification.

KEY RECOMMENDATIONS

The following recommendations are offered to outline steps the ASC should take to reverse the erosion of the Salmon Standard and to improve confidence in its application.

AUDITING PROCESSES

1 **Strengthen the Quality Assurance (QA) framework:** Continue to monitor and ensure that Certification Assessment Bodies (CABs) are providing the required metrics within audit reports to demonstrate conformance; are assessing Standard indicators correctly; raising and closing non-conformance appropriately; applying variances suitably and posting audit reports on time.

2 **Clarify the application and consequence of non-conformities:** Validate the Standard's stated 100 per cent conformance requirement by reinforcing that farms are either 'conforming' (i.e. meets the Standard) or 'non-conforming' (i.e. does not meet the Standard). Minor non-conformities should only be non-critical in nature (e.g. administrative). Farms in major non-conformance with the Standard should not be certified. If a major non-conformance is raised after the initial certification, the farm should not be able to use the label. Provide further rules in regard to suspension, re-instatement and withdrawal of certificates.

STANDARD CONFORMANCE AND PERFORMANCE

3 **Revise the PTI proposal to reflect actual global best practice:** The Standard should continue to define what is the top global performance and not allow regional variations that substantially weaken the Standard. Do not remove the potential lobster impacts from the criteria. Establish an acceptable ABM parasiticide load and number of allowed treatments within the ABM.

4 **Consider further reductions to the Fishmeal and Fish Oil Forage Fish Dependency Ratios:** 1.0 FFDRm and 2.30 FFDRo which reflect current best practices.

5 **Require further performance indicators be publicly reported:** These should include, but not limited to: escapes, parasiticide and antibiotic use.

6 **Develop an ABM approach to all Standards:** Establish requirements for potential cumulative impacts in relation to Standards' environmental indicators.

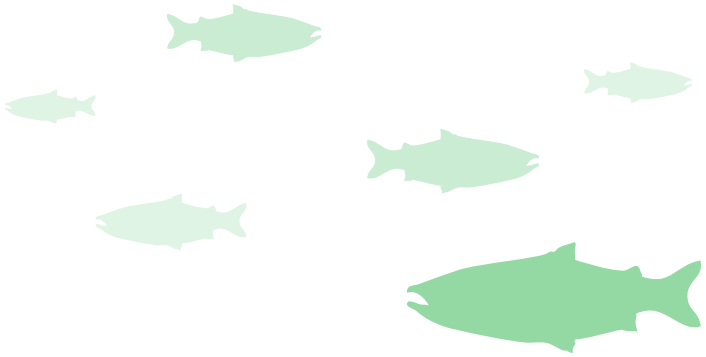
VARIANCE REQUESTS AND INTERPRETATIONS

7 **Improve the variance request process and its application:** Incorporate expert and stakeholder input into the variance request approval process. At approval, the scope (e.g. applicable farm, area and dates) should be defined to avoid incorrect application by CABs. Eliminate variances that permanently change a Standard requirement (metric, indicator, procedure) unless specifically envisioned in the Standard.

8 **Ensure the Interpretations Platform is used for clarifications only:** The platform should be used strictly for providing clarification to auditors and not for interpretations that amend the intent of the Standard or CAR. Rescind the interpretation that states intermediary sites are "out of scope" and align the CAR and Salmon Standard definitions of Unit of Certification to ensure that audits assess the complete production cycle impacts. Correct the interpretation that states the closure of a major non-conformity may be extended without an ASC defined deadline to correctly reflect the CAR's stipulated timelines for closing a major non-conformance–the one-time three-month extension and suspension after six months.

MONITORING AND EVALUATION

9 **Demonstrate that ASC certification is leading to sustainability improvements:** Conduct a data driven analysis to determine if certified farms are improving their practices.



CANADIAN (B.C.) SALMON FARM
photo: Tavish Campbell

INTRODUCTION

As one of the world's fastest growing food sectors, aquaculture now contributes half of the seafood we consume. In 2016, a total of 80 million tonnes of farmed seafood entered the global supply chain.[1] The sector's exponential growth has experienced environmental and social challenges. In response to these challenges, eco-labels for farmed seafood have proliferated in the last decade. In 2015, the global retail value of eco-certified farmed seafood was estimated to be $3.6 billion U.S.[2]

Established in 2010 following a series of multi-stakeholder dialogues, the global Aquaculture Stewardship Council (ASC) has grown to become one of most prominent eco-label schemes for farmed seafood.[3] One of eight ASC Standards, the Salmon Standard was launched in 2012[4] and the first farm was certified in 2014.[5] Often touted as the 'gold standard' for certification,[6 7 8] the ASC eco-label is intended to promote farms with best environmental and social practices. It was anticipated only the 'best practice' farms, defined as the top 15 per cent of all farms globally, would successfully meet the ASC's Standards.[9] Today, 27 per cent of the global salmon farming industry's production volume features the ASC eco-label.

Our[ii] report is the first global review of all ASC salmon certifications which examines farm conformance and performance with the Standard[iii]. The report also reviews the extent and impact of the practice of varying the Standard's criteria at the request of auditors, for farms that cannot meet the criteria as written.

Globally, salmon farming continues to be the subject of serious environmental and social concerns.[10 11 12 13] It is therefore critical for seafood eco-certification Standards and processes to be credible, and to lead to genuine sustainability improvement on the water. Our report provides recommendations that have the potential to strengthen the ASC certification in the long-term, which in turn, could help drive sustainability gains in the industry.

This summary report is supported by a technical report. For the complete analysis and ASC's response, refer to the technical report. Regional summary reports are also available. Visit: ***www.seachoice.org/asc-global-review***

REVIEW METHODOLOGY

We reviewed the conformance and performance of global salmon aquaculture operations against the ASC Salmon Standard as captured by third party auditors in their certification reporting. Publicly reported data on salmon farming company websites were collected and compared to audit evidence and data. We also analysed ASC approved variances and their application within audits.

This report reviewed a total of 456 audits (248 initial; 189 surveillance; 19 recertification),[iv] representing 257 salmon farms.[v] They were accessed at **asc.force.com/Certificates/**

[ii] SeaChoice member groups have been active stakeholders in the ASC and Salmon Aquaculture Dialogue for more than a decade. This has included steering committee representation during the original Aquaculture Dialogues, core participation in numerous ASC advisory and working groups, and active stakeholder engagement on ASC audits and projects.

[iii] The technical report content is current as of August 6, 2018, the date it was shared with the ASC for review and comment. Their response can be found as an appendix to the report.

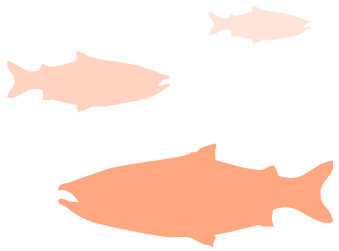
[iv] All audit reports publicly available on the ASC website as of March 15, 2018 were used in this report. Two large escape events at ASC certified farms that occurred after March 15 (May and July 2018) were also included given their significance in illustrating a key finding of the report.

[v] As of May 2018, there are 250 ASC certified salmon farms. This report's review of 257 farms includes farms with certificates that have expired, been suspended, cancelled or withdrawn.

HOW THE ASC AND THE SALMON STANDARD WORK

The ASC is the Standard holder. The ASC relies on independent auditing companies to assess farming clients against their respective species Standard(s) and to grant certification. A third-party organisation, Accreditation Services International (ASI), accredits and oversees the auditors. The scheme is also a member of the International Social and Environmental Accreditation and Labeling (ISEAL) alliance, which sets credibility Standards and promotes codes of practice.

Auditing fees are paid by the farming client directly to the auditor. Logo licence holders pay annual and royalty fees to the ASC.



THE SALMON STANDARD

Established following a serious of multi-stakeholder dialogues, the Salmon Standard version 1.1 is one of eight ASC species Standards. The Standard consists of seven principles, 36 criteria and a total of 119 indicators, plus an additional section for suppliers of smolt (a further seven criteria and 35 indicators).[14] Salmon aquaculture farms are scored against the ASC Standard on a pass/fail basis by the auditor.

Auditors must also follow the ASC audit manual and abide by the Certification and Accreditation Requirements (CAR) guidance document.[15] The CAR covers matters such as audit procedures, the quality of acceptable evidence and reporting requirements.

The ASC Salmon Standard states that in order for a farm to achieve certification it "must meet 100 percent of the [Standard] requirements".[16] Auditors can raise 'non-conformities' (classified as major or minor) against an audited farm.[17] Major non-conformities must be closed before certification is granted. Minor non-conformities can take up to 15 months for closure, and farms can be certified with any number of open minor non-conformities. An ASC certification is valid for three years, during which two surveillance audits are conducted to assess continued conformance. If non-conformance is identified during the validity of the certification, it should be raised by the auditor and closed within the time requirements stipulated by the CAR.

The ASC also allows auditors to seek an ASC interpretation or variance of either a Standard criterion or CAR requirement.[18] In practice, a variance can allow the auditor to successfully close out, or avoid raising, a non-conformity.

ASC SALMON STANDARD PRINCIPLES

1. Comply with all applicable national laws and local regulations
2. Conserve natural habitat, local biodiversity and ecosystem function
3. Protect the health and genetic integrity of wild populations
4. Use resources in an environmentally efficient and responsible manner
5. Manage disease and parasites in an environmentally responsible manner
6. Develop and operate farms in a socially responsible manner
7. Be a good neighbor and conscientious citizen
8. Standards for suppliers of smolt

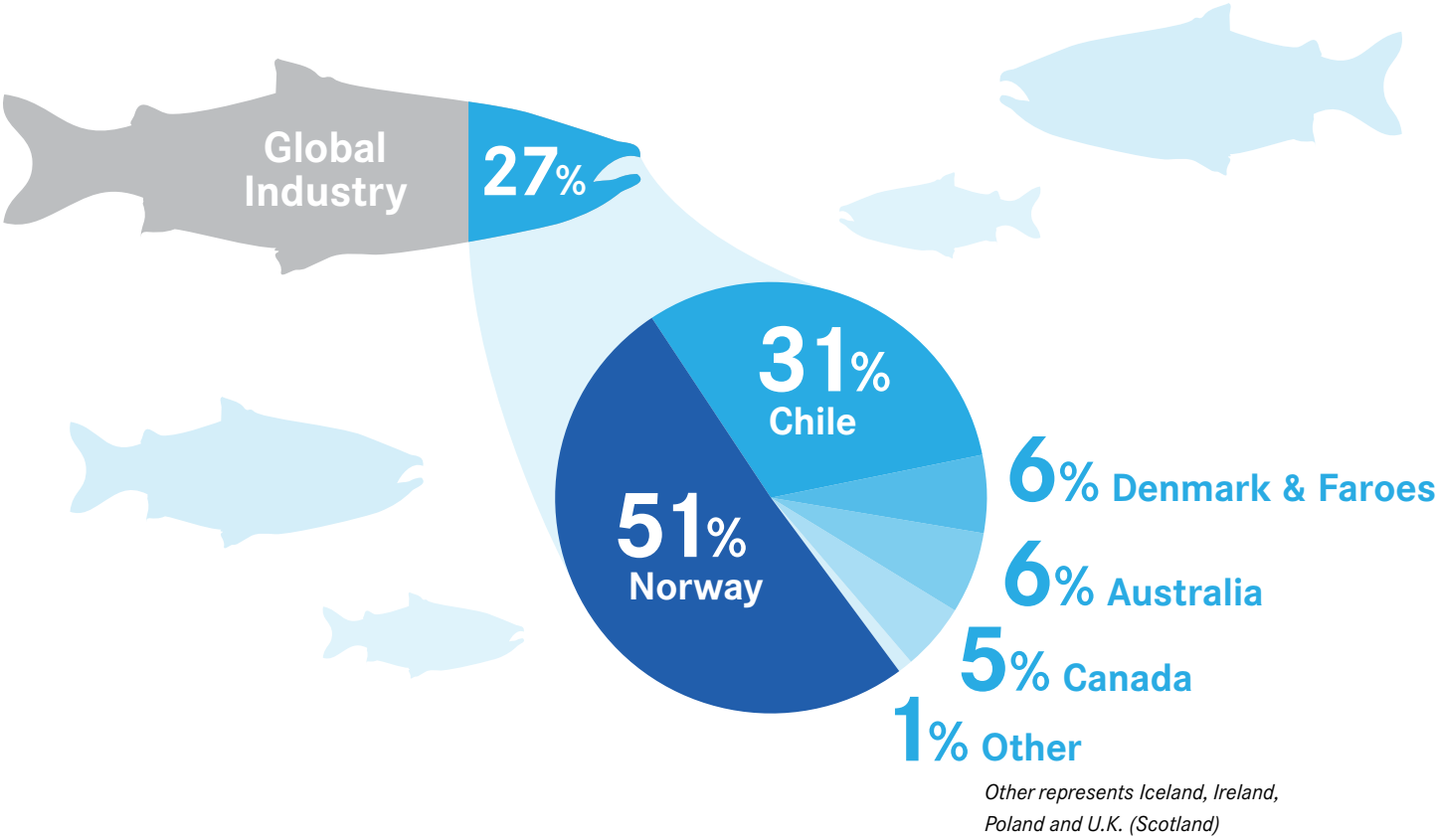
THE GLOBAL REACH OF ASC CERTIFIED SALMON

As of May 2018, 621 farms are ASC certified to one of the scheme's eight Standards.[19] This equates to over 1.4 million metric tonnes (mT) of seafood certified with the eco-label in the last year.

Salmon is ASC's leading species certification, with 250 certified salmon farms, and representing 40 per cent of all farms certified in the ASC program. Likewise, farmed salmon is ASC's top certification by volume with 749,581 mT (or 53 per cent) of all ASC certified production.

In 2016, approximately 2.5 million metric tonnes of farmed salmon (Atlantic; Chinook; Coho and sea trout)[vi] were produced worldwide.[20] Data obtained directly from ASC shows 708,436 metric tonnes of ASC certified salmon entered the global seafood supply chain in 2017.[21] Therefore, 27 per cent of the global industry's production volume and 11 per cent of salmon farms[vii] are certified.

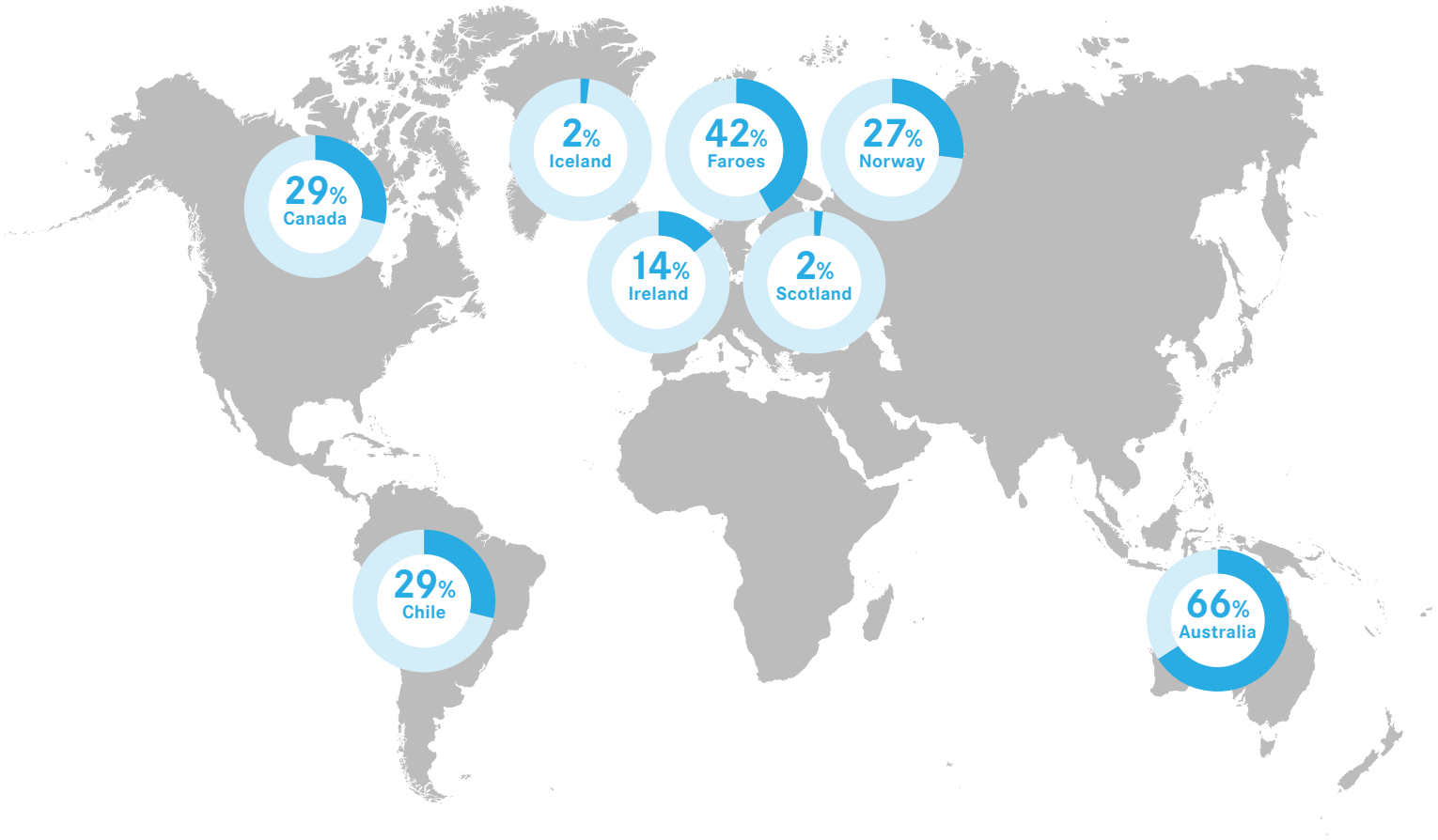
PERCENTAGE OF ASC CERTIFIED FARMED SALMON BY VOLUME



[vi] FAO 2016 global salmon aquaculture figures: Atlantic salmon 2,237,719mt; Chinook 11,451; Coho 124,012mt; marine-reared trout 194,100mt

[vii] There are approximately 2,220 salmon farming sites globally for Atlantic, Chinook, Coho and marine-reared rainbow trout (Australia 48; Canada 317; Chile 363; Denmark 19; Faroe Islands 25; Iceland 8; Ireland 49; Japan <5; New Zealand 9; Norway 1099; Poland 1; Russia <5; U.K. 253; U.S.A 25)

PERCENTAGE OF COUNTRY PRODUCTION ASC CERTIFIED



Norway and Chile account for 82 per cent of ASC certified salmon by volume. Approximately half of all ASC certified salmon originates from Norwegian farms, representing about 27 per cent of the Norwegian industry. Chilean farms contribute just under a third of all ASC salmon and a similar percentage of the country's total production is certified. Denmark/Faroe Islands, Australia and Canada each account for five to six per cent of ASC certified production. However, these countries have a significant amount of their production ASC certified relative to their industry's size: 42 per cent for Denmark (largely Faroes Island farms); 66 per cent for Australia and 29 per cent for Canada. Canada's ASC certified farms are all located in British Columbia (B.C.) where just under half of the industry (49 per cent) is certified. The remaining countries (Iceland, Ireland, Poland and the United Kingdom) represent less than two per cent of ASC certified salmon volume collectively.

AUSTRALIAN (TASMANIA) SALMON FARM
photo: Kristina D.C. Hoeppner

REVIEW FINDINGS

The Salmon Standard states that farms "must meet 100 per cent of the requirements in this document to achieve certification".[22] This is an impressive claim that instils trust in consumers interested in making environmentally responsible food choices.

However, our review finds auditing processes – including non-conformities, variances and interpretations – mean that few certified farms meet the '100 per cent' claim or follow the Standard as written. Additionally, the Standard itself is at risk from being weakened by operational reviews. All together, these realities are undermining the organisation's theory of change by eroding the best practices codified in the Standard.

Regional Findings and Summaries can be found at ***www.seachoice.org/asc-global-review***

NORWEGIAN SALMON FARM

FARM CONFORMANCE: FINDINGS

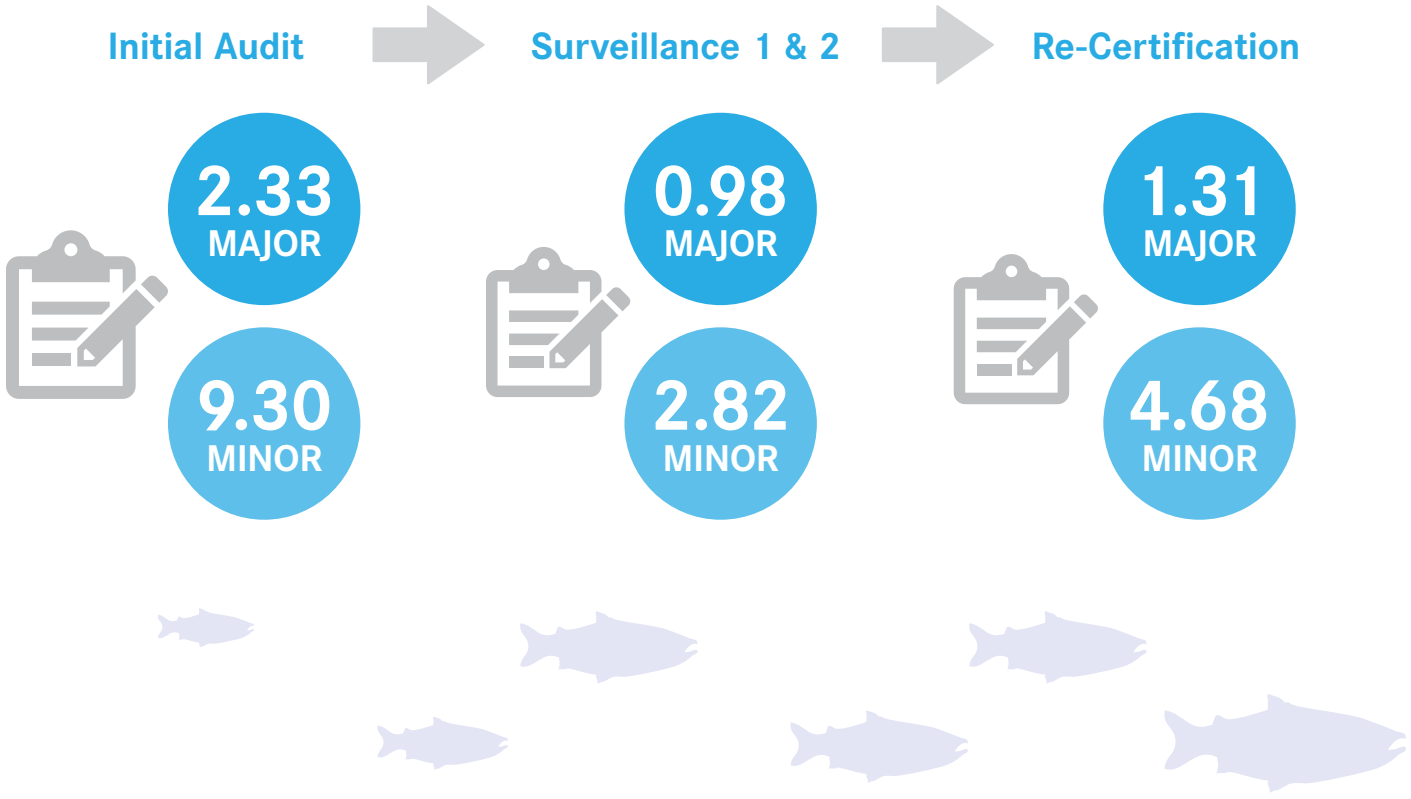
Auditors can raise non-conformities (classified as major or minor) against an audited farm in the event the farm fails to conform to a Standard requirement.[23]

The average initial farm audit detected 2.33 major and 9.30 minor non-conformities. Post-certification, most farms failed to conform fully to the Standard; non-conformities were regularly detected during surveillance and recertification audits (an average of 0.98 major, 2.82 minor and 1.31 major, 4.68 minor non-conformities respectively).[viii] **Only 32 (out of 456) audits had zero non-conformities: two initial and 30 surveillance audits. This demonstrates that most farms failed to continuously conform to the Standard.**

Some audits failed to raise non-conformities. There were 102 instances where audit evidence or metrics indicated a non-conformity ought to have been raised but wasn't. Some farms failed to close non-conformities on time. There were 326 instances (153 major; 173 minor) where the reported closure of non-conformities was past the required deadline.

Furthermore, certified farms in major non-conformance with the Standard can sell their product as ASC certified. This suggests ASC's suspension and revocation rules are inadequate and/or underused.

THE AVERAGE FARM AUDIT DETECTS THE FOLLOWING NUMBER OF NON-CONFORMITIES:



[viii] Note: major non-conformities should be closed before initial certification and re-certification is granted. After initial certification is granted, where major non-conformities arise (e.g. at surveillance audits), these must be closed within three months (up to six months with an extension); during this three to six-month period, farms in major non-conformance with the Standard can continue to sell their product as ASC certified. Farms can have up to a year and three months (with an extension) to close minor non-conformities. Farms can be granted certification with open minor non-conformities.

FARM PERFORMANCE: FINDINGS

The Salmon Standard's requirements aim to "minimize or eliminate" key environmental and social impacts associated with salmon aquaculture.[24] A number of the requirements rely on farm-level metrics to demonstrate conformance.

Key environmental impacts were reviewed across regions. For the most part, certified farms can easily meet the threshold requirements of the following indicators: escapes, maximum viral disease mortality, antibiotic use, sea lice treatments (known as the PTI score), wild fish in feed ratios and marine mammal deaths. In fact, data indicates the fish feed criteria are likely too lenient and could be further reduced to reflect current industry best practice.

Conversely, it was found no farms comply with all of the area-based management (ABM) requirements as written in the Standard's appendix. Meeting sea lice related indicators such as on-farm sea lice counts and sea lice monitoring on wild fish were also found to be inconsistent. Some farms remained certified despite publicly reported escapes or marine mammal deaths that were above the Standard's limit.

DISEASE AND SEA LICE

Faroes and Scotland farms recorded sea lice values up to **21 TIMES** the Standard limit

0 farms complied with all ABM components

B.C. farms recorded sea lice values up to **10 TIMES** their varied limit

94% of audits were able to meet the maximum viral disease mortality threshold

CHEMICAL USE

80% of audits listed zero antibiotics for the grow-out farm

96% of audits successfully met the current PTI score

FISH FEED

95% of audits met the fishmeal and fish oil ratio limits

Farms are improving their fishmeal ratios over time

ESCAPES & ENTANGLEMENTS

Four large public escape events at ASC certified farms could not be found addressed in audits

- 1,415 NORWAY
- 10,000 CHILE
- 109,515 FAROE ISLANDS
- 120,000 AUSTRALIA

5 audits reported marine mammal deaths above the Standard limit

THE EXTENT AND IMPACT OF AMENDMENTS: FINDINGS

Amendments to the Standard and the auditor's guidance document, known as the CAR, can occur by the way of variances, interpretations and operational reviews.

VARIANCES

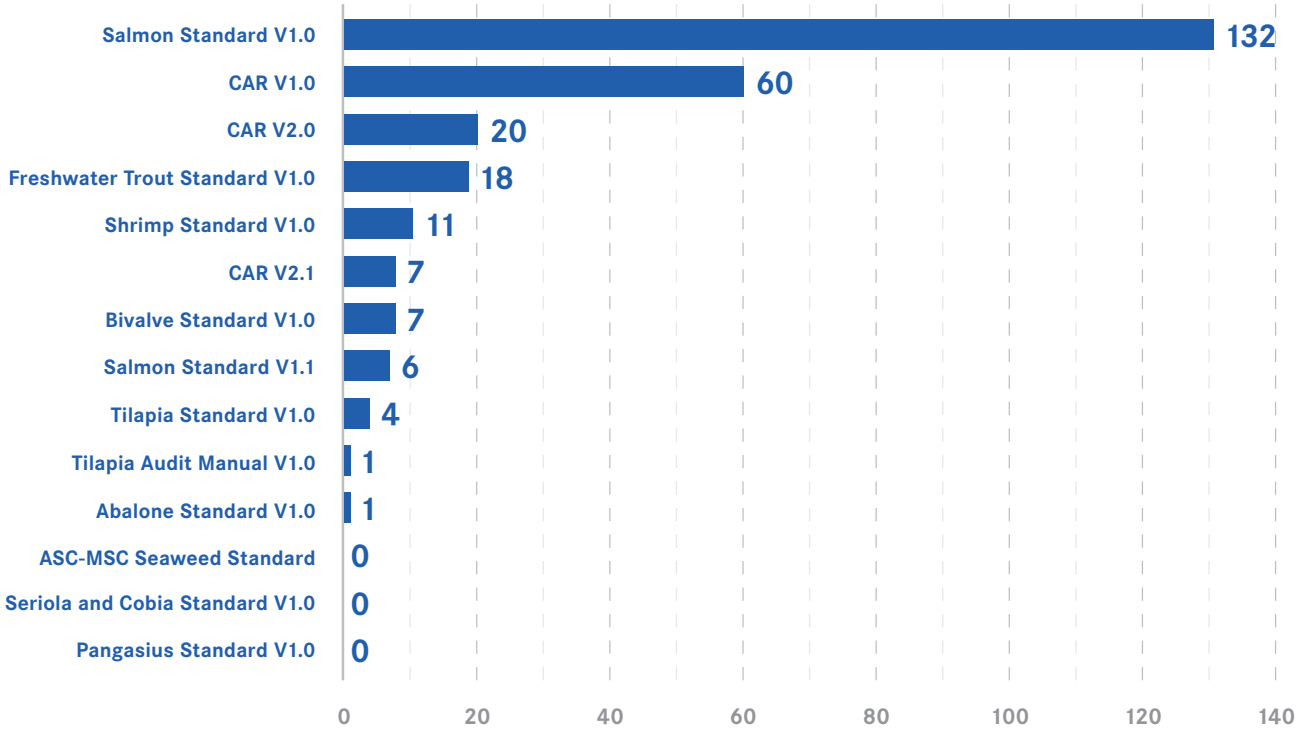
The auditor conducting a salmon farm certification can submit a variance request to the ASC's Variance Request (VR) committee[25] when there is a situation that is not covered by the Standard or audit documents, or the auditor believes the evidence indicates an appropriate case for relieving a farm from the application of a criterion. The VR Committee is composed of the ASC Standards Director, Chair of ASC TAG, Chair of the ASC Supervisory Board and ASC's CEO. In practice, an approved variance can allow the auditor to successfully close out, or avoid raising, a non-conformity.

THE VARIANCE REQUEST PROCESS

ASC's variance process sometimes overrides the multi-stakeholder agreements on which the Standard's social licence is based. The process lacks stakeholder engagement, as well as independent technical and scientific advice.

Over half of ASC's approved variances relate directly to the Salmon Standard.[26] A total of 115 have been approved and only one has not been approved.[ix]

THE NUMBER OF VARIANCE REQUESTS BY STANDARD AND CAR



[ix] 138 Variance Requests: 115 approved; 1 not approved; 16 open; 6 deemed n/a.

THE APPLICATION AND IMPACT OF VARIANCES

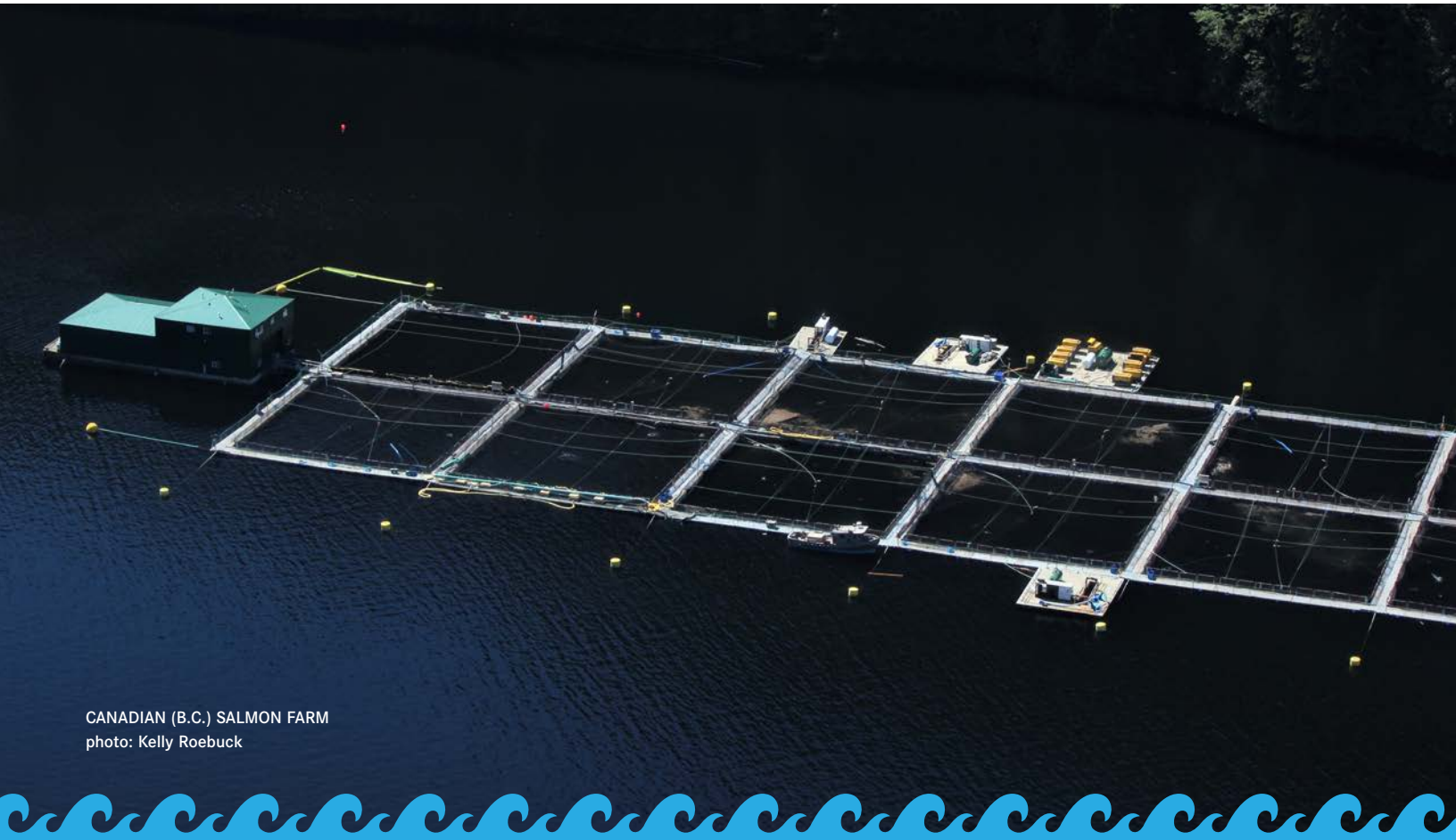
Variances can enable farms that would otherwise be in major non-conformance with the Standard to be certified. Only 21 per cent of certified farms followed the Standard as written (i.e. without varied criteria). Furthermore, auditors often apply variances as exemptions from Standard requirements. Conformance with the varied criteria can go unassessed.

ASC also allows auditors to reapply approved variances in "identical situations".[27] Despite 115 approved variances, a total of **866 applications of variances were cited** in audits. Variances can become precedent-setting, *defacto* regional changes to the Standard. The ability for auditors to reuse variances has resulted in a number of variances being applied at a regional level to the benefit of all farms within that area. This means farms are held to different Standard requirements in different regions.

In addition, a number of variances depart from the Standard and defer to government regulations. Many of these variances were found to weaken the requirements and, thereby, also the intent to hold farms to a higher Standard than those imposed by local regulators.

2.4
AVERAGE NUMBER OF VARIANCES PER AUDIT

79%
OF AUDITS RELY ON VARIANCES



CANADIAN (B.C.) SALMON FARM
photo: Kelly Roebuck

INTERPRETATIONS

Auditors can submit questions to the ASC seeking clarification on Standard(s) requirements or CAR auditing guidelines. Answers are provided on the ASC's interpretation platform website which is "intended to be a tool to improve consistency in understanding and application of ASC Standards and Certification & Accreditation Requirements (CAR)".[28] However, instead of clarification, some of the ASC's answers have led to substantial amendments of the Standard(s) or CAR.

There was no evidence found that ASC interpretations were vetted through a governance body such as the ASC's Technical Advisory Group or Supervisory Board. In fact, the interpretation platform states, "administrators from ASC have the final say in modifying, interpreting and enforcing those rules".[29]

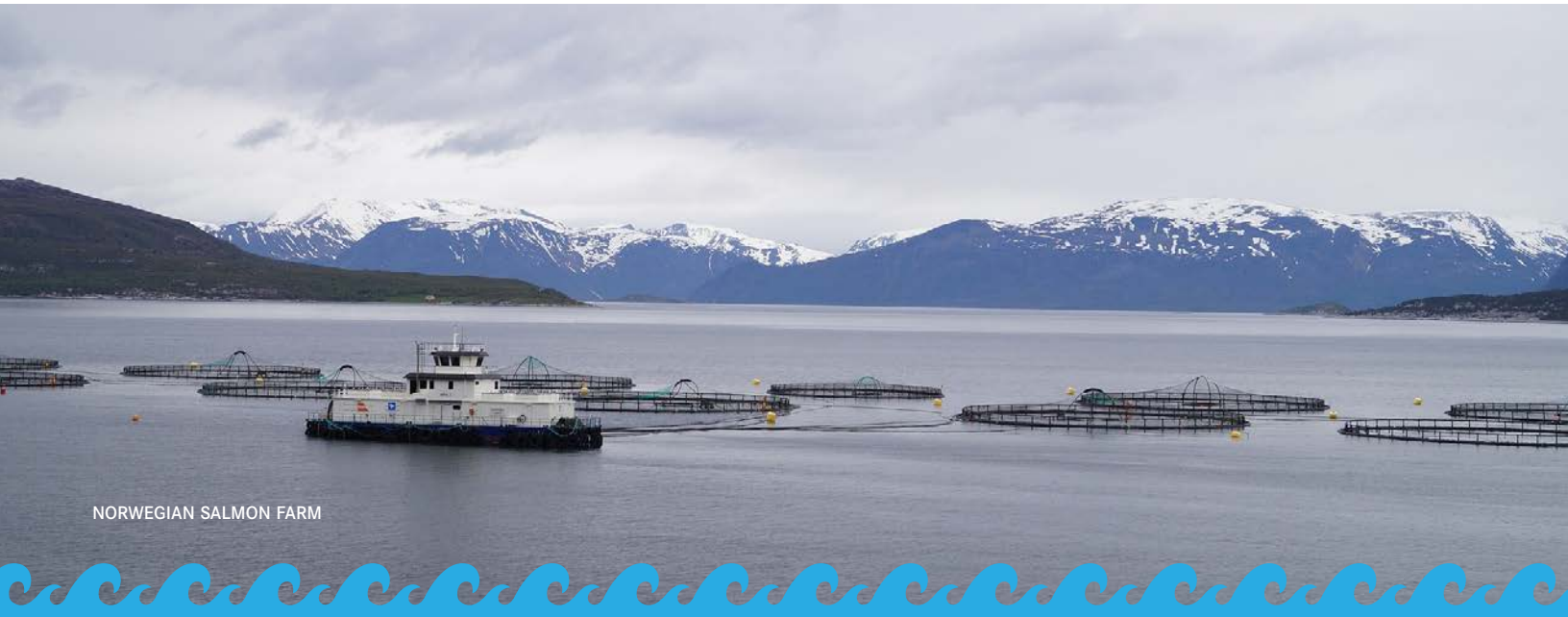
EXAMPLE 1: MAJOR NON-CONFORMITIES ALLOWED TO REMAIN OPEN INDEFINITELY

Farms that are in major non-conformance with the Standard are required to 'close out' the non-conformity before certification is granted or within three months if already certified.[30] Certified farms may extend the closure of a major non-conformity "once for a maximum period of three months" and suspension should occur "if the major non-conformity remains open after six months".[31]

In conflict with these CAR requirements, an ASC interpretation allows major non-conformities to remain indefinitely open (with an action plan and assessed progress, but no stipulated deadline).[32]

This interpretation has benefited at least one farm whose smolt provider has occurred repeated exceedance of the phosphorus effluent level and recorded degradation of the downstream environment.[33] Non-conformance was first noted in 2014. A major non-conformity was raised in 2017 and remains open, with an anticipated "final demonstration of conformance" scheduled in 2019.

With the publication of this interpretation, any farm audit thereafter can utilize the amendment. The interpretation opens the door to certification of farms clearly not performing according to the Standard: an auditor could recommend granting certification or the continued certification for a farm despite finding an unlimited number of major non-conformities which may remain open for an unspecified length of time, provided an action plan exists. The result is ASC-labelled product enters the market despite not meeting the Standard's stated 100 per cent conformance requirement.



NORWEGIAN SALMON FARM

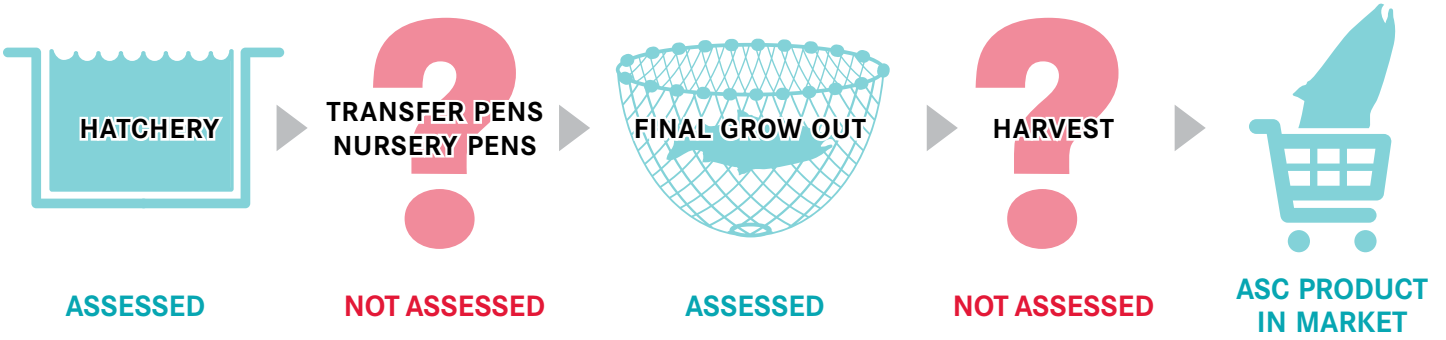
EXAMPLE 2: INTERMEDIARY FARMS EXCLUDED FROM CONFORMANCE

Intermediary farms (e.g. transfer pens, nursery pens or initial grow-out site) are commonly used during the farmed salmon production cycle in Tasmania, B.C. and Scotland. Transfers between sites have also been observed in Norwegian audit reports. Intermediary farms are typically used between the hatchery and final grow-out stage.

It would be expected all stages of the farmed salmon production cycle ought to be assessed against the Standard's environmental and social criteria. The ASC defines their 'unit of certification' to include all production, harvest and processing sites up to the point where the product enters the chain of custody.[x] A number of Standard indicators rely on data from a full production cycle for evidence of conformance. Despite this, the ASC recently stated intermediary sites are "out of scope".[34] The ASC's interpretation amends the Standard as written and intended (to assess the full environmental and social impacts of the farmed salmon production cycle).

Consequently, up to a year of production time could be excluded from conformance with the ASC Standard.[35] As a result, Standard metric thresholds such as sea lice treatment frequency counts, antibiotic counts, escapes, marine mammal and bird deaths could be false and underreported. In addition, non-conformities during the intermediary stage are disregarded.

ASC AUDITS: WHERE PRODUCTION CYCLE GAPS HAVE BEEN OMITTED FROM AUDIT



[x] CARv2.1 Annex A – The ASC Vocabulary

SCOTTISH SALMON FARM
photo: Mike Peel

OPERATIONAL REVIEWS

Periodic reviews are conducted to ensure relevance and efficacy of the Standard "in terms of inclusion of the industry best practice".[36] The process is the most inclusive and transparent mechanism available for amending the Standard. However, it can be hard for stakeholders to understand the reasoning for and the justification for the solutions proposed for reviews that do not appear necessary.

THE PARASITICIDE TREATMENT INDEX (PTI) REVISION

The ASC initiated an operational review of the current PTI indicator stating, "the conformance with the PTI should be a challenge to certification not a barrier".[37] Yet, our review found 96 per cent of certified farms are able to meet the PTI; meaning the PTI score is likely not a barrier for the top 27 per cent of farms globally.

Despite this, the ASC proposes to greatly increase the allowable number of parasiticide treatments on farms.[38] They also propose regional and conditional improvement approaches – two fundamental shifts from the current Standard. A 'Global Target' was defined as four sea lice treatments (up to a 100 per cent increase from the current PTI which allows 2 to 3 treatments). Regional 'Entry Gate' thresholds were also proposed that represent up to a 450 per cent increase – depending on the region. These 'Entry Gate' farms are expected work towards meeting the 'Global Target' – but these conditional improvements could take up to 15 years.[39]

This PTI amendment could allow up to two-thirds of the global salmon farming industry to meet this indicator,[40] thereby, making it inconsistent with the best practices approach to which the Standard claims to adhere.

COMPARISON OF THE CURRENT PTI AND THE PROPOSED ENTRY GATE TREATMENT FREQUENCIES

	ATLANTIC CANADA	PACIFIC CANADA	CHILE	FAROE ISLANDS	IRELAND	NORWAY	SCOTLAND
Current PTI treatment frequency allowance	2-3	2-3	2-3	2-3	2-3	2-3	2-3
Proposed 'Entry Gate' treatment frequency allowance	8	4 (Global Target)	11	8	7	6	9
Increase from current PTI	166% - 300%	33% - 100%	266% - 450%	166% - 300%	133% - 250%	100% - 200%	200% - 350%

CONCLUSION

The ASC defines the best practices enshrined in their certification Standards as practices that only the top 15 per cent of farms globally would be able to meet at the time the Standards were launched.[41] ASC's theory of change aims to incentivize non-certified farms to improve practices in order to achieve certification. This theory relies on consumers driving the demand for ASC labelled products, which in turn, requires more ASC certified farms to supply the market. The foundation of the scheme thus rests on consumer perception that it is credible – that its practices are transparent and its procedures fair.

Organisations like the Global Salmon Initiative have announced that they intend to acquire certification for all their member farms by 2020. Given the importance of farmed salmon to the ASC scheme, this puts the ASC and third-party auditors under some pressure to bring more farms on board. Therefore, for the ASC to maintain its claims of representing best practice and its reputation among all stakeholders, it is crucial that the ASC be extremely cautious and rigorous with its handling of non-conformities, variances, metric reporting and changes to the stringency of the Standard's requirements. The evidence suggests that amendments to the Standard through variances, interpretations and operational reviews, such as the PTI proposal, have or could weaken the scheme's adherence to best practices.

This creates a question as to whether the ASC's theory of change is being operationalized: is the Standard still focused on incentivising best practices in order to access market premiums for more sustainable seafood? Or, has it shifted toward merely excluding the worst performers in favour of bringing more farms into the program?

The strength of the ASC's certification scheme derives in part from the social licence it built through its foundational Aquaculture Dialogues. Changes and processes that weaken the Standard, or undermine compromises and agreements from those dialogues, have the potential to erode that social licence, reduce or reverse environmental and social gains incentivised by the Standard and devalue the credibility of the certification's "responsibly farmed" eco-label in the marketplace. The intent of our report is to provide the rationale and options for immediate and medium-term actions (key recommendations, page 5) the ASC can take to reform key deficiencies and maintain or enhance the scheme's credibility and its positive environmental and social impact.

CHILEAN SALMON FARM

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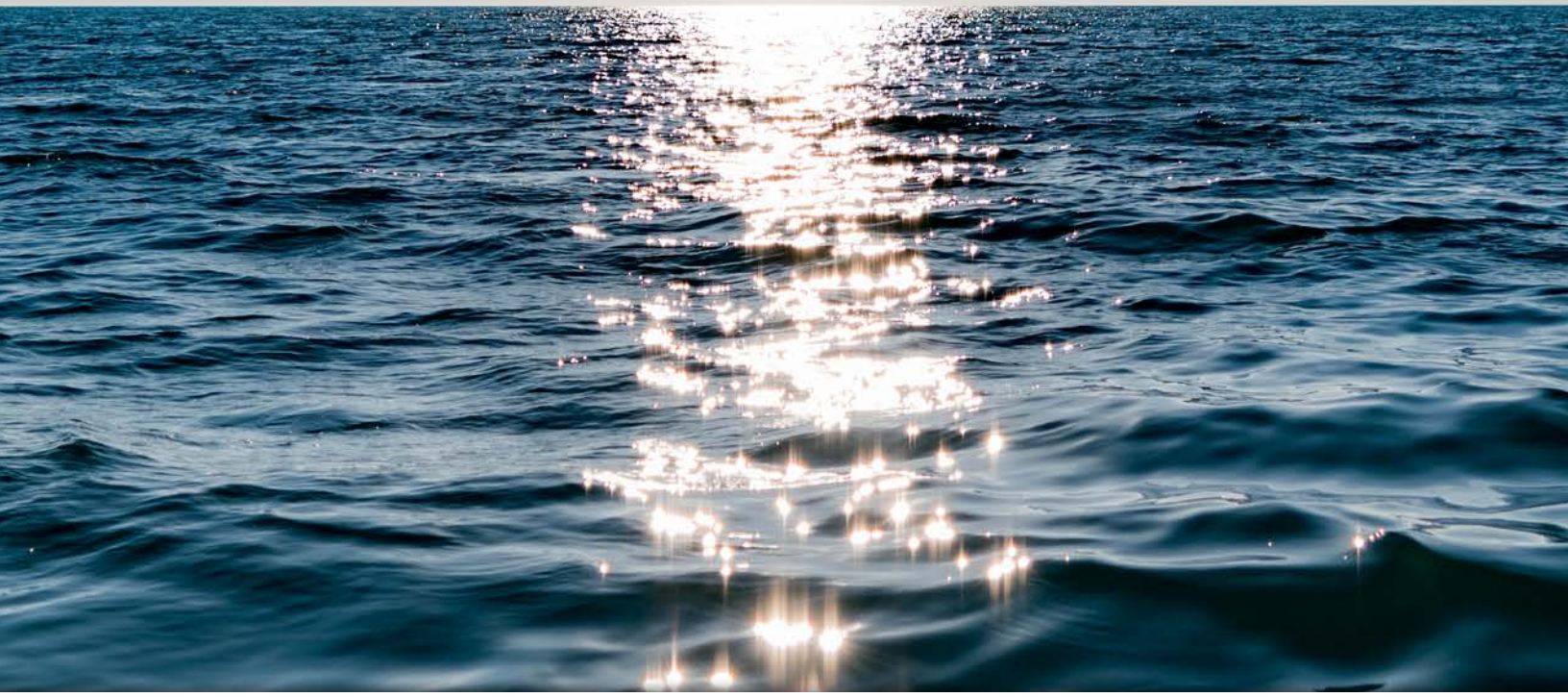

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