

# Salmon Aquaculture Dialogue

## Steering Committee Summary Response to Public Comment on SAD Revised Draft Standards February 2012

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### Overview

This document provides a synthesis of key themes that emerged in over 400 pages of public comment by more than 50 organizations that the Salmon Aquaculture Dialogue (SAD) received on its revised draft standards released on May 16, 2011. The document also includes a summary of the SAD Steering Committee (SC) review of the comments and how they, in some instances, incorporated them into a revised draft. This second public comment period lasted for a month.

Significant revisions were made between the second and final drafts of the standards and not all of those changes are detailed in this document. The comments are grouped thematically by Principle area from the SAD revised draft standards. To see all public comments received during the public comment period, please see <http://www.worldwildlife.org/what/globalmarkets/aquaculture/salmon-additionalresources.html>. All comments received during the first public comment period, and the SC response to those comments, are also available from that webpage.

### I. General comments

- A number of stakeholders raised questions and comments about auditing guidelines, the importance of these guidelines in determining the actual impact of the standard. In particular, questions were raised about auditing these standards in closed containment production facilities.  
⇒ *SC Response: Feedback that specifically raised implementation and auditing challenges, and that suggested specific edits to the standard to address these challenges, was particularly useful to the SC in refining the standards. The SC added further clarification about auditing on areas where major questions were raised about auditability or interpretation of the standards. Additionally, a review was conducted to highlight key differences related to auditing and exemptions or edits necessary for closed containment production systems. However, not all*

*points related to auditing were clarified in the standards document. During the first quarter of 2012, a complete auditing guidance document will be developed, under the supervision of the SC.*

- Some comments reflected confusion about the applicability of the standards.
  - ⇒ *SC Response: The standards are applicable to species belonging to the genus *Salmo* and *Oncorhynchus*, and can be applied to all locations and scales of salmon aquaculture production systems. They can be applied at existing or new farm sites.*
- Multiple stakeholders requested that the SC revisit the discussions on fish welfare and explicitly include fish welfare as a goal of the SAD
  - ⇒ *SC Response: The SAD was initiated to address potential negative environmental and social impacts of salmon farming. Farmed fish welfare does not fall under the mandate of the SAD and was not part of the rationale for creating the SAD. The SAD SC encourages the ASC to consider partnering with existing or future fish welfare certification schemes to coordinate auditing processes for farms that wish to certify to both. The SC believes that although farmed fish welfare is not an explicit goal of the SAD, farmed fish welfare is in fact comprehensively addressed through environmental and fish health standards. Additionally, in revising the standards, the SC added a standard requiring farms to follow the OIE Aquatic Animal Health Code, which includes welfare components.*
- Several individuals submitted comments stating their opposition to salmon farming as a whole and to the development of the standards.
  - ⇒ *SC Response: The SC recognizes that there exist a broad range of opinions about salmon farming and certification as a tool to create change in industries. The SAD was formed based on a premise that salmon farming exists and will continue to exist. The goal of the standards is to minimize or eliminate key impacts associated with production from farms that meet the standard while also being economically viable, and to highlight better performers in the industry, as defined by the SAD standards. The standards are intended to be one tool to reduce negative impacts of the industry and to promote meaningful, positive change in the way salmon is farmed.*
- Stakeholders expressed conflicting opinions about the transparency requirements throughout the standards.
  - ⇒ *SC Response: The SC believes that transparency is critically important and must remain a central tenet of these standards. The SC simultaneously recognizes that some information could put the producing company at a competitive disadvantage if released prior to the harvest and sale of the fish. Consequently, the timing of making certain information public must be taken into account.*

## **II. Principle 1**

- The majority of comments on Principle 1 related to editing and defining concepts.
  - ⇒ *SC Response: Initial auditing guidelines for Principle 1 were further developed in the final draft of the standards. Additionally, a standard previously in Principle 1 was moved in this version to Principle 5 based on public feedback.*
- Several stakeholders stated a view that regulations were not sufficient or that Principle 1 “endorses” the status quo.

⇒ *SC Response: Adherence with national and local laws is a baseline on which all the other standards in the SAD build. It is not the role of the SAD SC to determine whether regulations in various jurisdictions are sufficient or enforced. The SAD standards are a farm-level tool that can be applied to a production system. The measurements and performance thresholds required in the standard are in addition to what is required under law in that jurisdiction.*

### **III. Principle 2**

- A number of comments spoke to the idea of applying benthic chemical and faunal standards to sites with hard bottoms.
  - ⇒ *SC Response: Standards under 2.1 and their sampling methodology is only meaningful for sites with soft bottoms. The SC reviewed existing methods for determining impact on hard bottom sites and was unable to identify any clear and effective methodology for measuring impact and defining an acceptable threshold of impact on such sites. The final draft standards therefore do not address this issue. The SC encourages additional research on this matter and the incorporation of standards for these sites when then the SAD is updated.*
  
- A number of comments reacted to standards under 2.2. Some expressed concern that the standards ignored natural fluctuations in dissolved oxygen. Others said overall they perceived the water quality standards were not strong enough.
  - ⇒ *SC Response: The standard has been edited to better apply in areas where there is a large natural fluctuation in levels of dissolved oxygen. Standards related to monitoring nutrient levels in the water have been revised to better take into account existing regional or jurisdictional water quality reviews and targets. Lastly, a calculation of biochemical oxygen demand has been added in order to better understand the input of nutrients from the farm to the water body.*
  
- A number of comments related to the requirement under 2.4.1 for an assessment of potential impacts on biodiversity and nearby ecosystems. Comments ranged from statements that this was insufficient, to statements that this was too onerous or duplicative of legal requirements.
  - ⇒ *SC Response: No significant changes were made to this standard. This standard complements other standards that more directly place a limit on key impacts or performance thresholds. It also is recognized that in some jurisdictions, an environmental impact assessment is conducted as part of the permitting process and these assessments can be used to demonstrate compliance with some or all of the requirements of assessment under the SAD.*
  
- A range of stakeholders suggested that some limited use of acoustic deterrent device (ADD) technology be used, or that some types of technologies be allowed. Other stakeholders supported phasing out the devices, or immediately banning them under the standard.
  - ⇒ *SC Response: Standards 2.5.1 and 2.5.2 were revised to extend the timeframe for phasing out the use of ADDs while placing restrictions on frequency of use of the devices in the interim. The SC is aware of ongoing research related to the development of new ADDs that aim to make the unintended consequences on marine mammals negligible. However, the SC has not found any such devices are already on the market. The SC believes that this is an area where, should a newer technology become available that has scientific evidence of significantly reduced unintended effects, the Technical Advisory Group of the ASC should be asked to review evidence provided to them to determine whether the technology should be allowed under the standard.*

*This request could be made prior to the formal, complete review of the standards or could be done as part of a broader update of the standards.*

#### **IV. Principle 3**

- Stakeholders requested that the standards better incorporate standards related to disease and pathogens more broadly, complementing the sea-lice specific standards.
  - ⇒ *SC Response: The SC substantially revised standards under Principles 3 and 5 to better incorporate standards related to best practice for preventing and responding to disease, with a focus on the OIE Aquatic Code and responses to OIE notifiable diseases. ABM requirements were also expanded to include development and tracking of shared disease management goals for the area.*
  
- Stakeholders expressed confusion about the way the counting technology and escapes standards were written under Criterion 3.4 and simultaneously expressed support of the goal of minimizing escapes
  - ⇒ *SC Response: The SC also firmly believes in the goal of minimizing escapes. The SC streamlined the escapes standards in order to improve clarity, though the effect of the standard remained consistent with the previous version. Accuracy of counting technology is defined in a footnote as being determined by the spec sheet for the technology or through common estimates of error for hand-counting.*
  
- Stakeholders requested clarification of the definition of “non-native” farmed species, especially in situations such as New Zealand where species that were once non-native became established prior to salmon farming in the region. Conversely, some stakeholders expressed concerns that the standards were not sufficiently precautionary.
  - ⇒ *SC Response: The final draft standard includes additional clarity on applicability of the standards with regards to species that became established in a region. Further clarification on the interpretation of “widely commercially produced” will be provided in the auditing guidance manual. Standards related to producing non-native species were based on research to date on this issue and expert opinions on risks of producing non-native species. Looking forward, a standard was added to ensure research on the risk of establishment of a non-native farmed species is conducted in the future, and to ensure that if that risk levels change significantly in a given jurisdiction, certification of that species be reconsidered.*
  
- Numerous specific comments with a broad range of viewpoints were made with regards to the options proposed in the revised draft standards related to on-farm sea lice levels.
  - ⇒ *SC Response: The broad range of opinions and ideas raised in the public comment are in line with the broad range of opinions and ideas within the SC on this issue. The SC recognized the importance of on-farm lice levels, as well as the cumulative load from a farm and its neighbors in an ABM scheme. The final draft standards under 3.1 are designed to address both issues, given the limitations of a farm-level standard and variety of natural conditions. The revised standards include a hard cap for on-farm lice levels during sensitive periods for wild salmonids, testing of lice levels on wild salmonids, and a feedback loop from the testing into a limit on total lice loads from the entire ABM. Data from the implementation of these standards and the research on lice in the wild will provide important information to be considered when the standards are revised.*

- A range of stakeholders supported the prohibition of the production of transgenic salmon under the standard.  
⇒ *SC Response: The standard prohibiting the production of transgenic salmon remained the same.*

#### **V: Principle 4**

- A broad range of comments, with conflicting viewpoints, were submitted on the standards related to feed efficiency and feed sourcing. With regards to both areas, some stakeholders felt the standards were too constrictive or not realistically achievable, others stated concern that the standards were too lenient and wouldn't result in positive change, and still others were supportive of the standards as written in the revised draft.  
⇒ *SC Response: The SC did not make significant changes to the standards related to feed, though some clarifications were added and redundancy removed. The standards reflect a range of viewpoints, and the SC believes they are achievable by a subset of the industry in collaboration with their feed supplier. Many of these same issues and themes arose during the first public comment period and are addressed in the response to public comment from that draft.*
- A range of views were expressed in the comments related to copper anti-fouling, ranging from requests to prohibit the use of copper anti-foulant under the standard to deleting standards related to copper.  
⇒ *SC Response: The SC recognizes that a range of variables affect the degree to which copper (Cu) is toxic in the marine environment, and background copper levels vary widely in salmon growing regions. The revised draft standards set a threshold of Cu in sediment beyond which an analysis must be done to demonstrate the near-farm concentration is consistent with background levels. The threshold is consistent with definitions around Cu concentrations set by the Scottish environmental regulator. The standards encourage the use of non-copper based antifoulants where feasible by requiring additional benthic measurements for farms that use copper-based antifoulant or copper nets.*

#### **VI. Principle 5**

- Stakeholders requested that the document better incorporate standards related to disease and pathogens while other stakeholders commented that there isn't a clear link between farms and diseases in wild fish.  
⇒ *SC Response: The SC recognizes uncertainties related to understandings of pathogen transmission and simultaneously recognize the importance of disease and biosecurity related standards in reducing risks related to disease transmission among farms and wild fish. In line with advice from a number of disease experts consulted by the SC, the SC substantially revised standards under Principles 3 and 5 to better incorporate standards related to best practice for preventing and responding to disease, with a focus on the OIE Aquatic Code, responses to OIE notifiable diseases and response to suspected unknown pathogens. Additionally, standards related to on-farm mortality were adjusted to focus on mortalities from viral disease or unknown causes, which experts suggested represented the greatest risk.*
- A wide range of opinions on the standard related to on-farm mortality were expressed through the public comment help  
⇒ *SC Response: The SC recognizes that mortality will vary due to unknown factors, even on farms that follow strict standards for smolt quality and disease control. The mortality standard was*

*adjusted to focus on on-farm mortality from viral disease and unknown causes because these were highlighted by experts as the categories of mortality that presented the greatest risk to other farms and to wild species. The SC understands that the performance threshold set in the standard is not as stringent as some stakeholders would like and simultaneously is more stringent than others would like. The SC settled on a standard that would encourage better performance from a global perspective while recognizing the unpredictability and volatility farms face around this performance metric, even farms that employ the best biosecurity practices. This unpredictability could discourage even well-managed farms that usually have low mortality rates from applying for certification. The SC believes that the mortality rate standard should be reconsidered over the coming years as more knowledge accumulates. The SC believes that this standard, in combination with other standards under Principles 3 and 5, should noticeably reduce the risk related to diseased salmon in the farms.*

- Stakeholders expressed a wide range of views on how best to address potential impacts of therapeutant use, ranging from suggestions that parasiticide use should not be addressed in the standard to requests to prohibit parasiticide use under the standard, since some farms do not use therapeutants.
  - ⇒ *SC Response: The SC spent a significant amount of time revising standards related to parasiticide use, including conversations with experts and additional review of scientific papers on the issue. Stakeholders suggested adding standards related to method of treatment and timing of treatment with regards to sensitive species such as lobsters. The parasiticide treatment index (PTI) was revised to include factors that account for the risks of the choice of parasiticide, the method of treatment, the timing of treatment, and repeated use of the same treatment. In effect, the PTI places a cap on the frequency or total number of treatments used and encourages use of treatments with lower environmental risk. Additionally, the standards require that within five years of the publication of the standard, farms that are using more than one treatment must demonstrate a reduction in total parasiticide load over time. Farms that do not use therapeutants will easily be able to demonstrate compliance with this standard.*
- Many stakeholder comments on the standards related to restricting the use of antibiotics classified as critically important or highly important for human health by the World Health Organization (WHO). A broad range of views were expressed, ranging from support for the draft standards to statements that they were too lenient to statements that they were too restrictive.
  - ⇒ *SC Response: The use of antibiotics that are critically important for human health in animal production is a core concern for many of the NGOs that participate in the salmon Dialogue. Stakeholders within the SAD share a common interest and common goal in keeping the use of antibiotics low and minimizing risks associated with their use. Recognizing this, the SAD standards seek to be in line with the WHO global effort to ensure that antibiotics important for human medicine are used in a way that doesn't jeopardize their effectiveness in treating human diseases. The SC maintained the prohibitions on using critically important antibiotics and prophylactic use of any antibiotics. In addition, it created a new mechanism to minimize use of all other antibiotics on a farm with a focus on reduction in total load of antibiotics used and discharged over time from a farm.*

## **VII. Principle 6 and 7**

- Several groups raised concerns about auditability and need for clearer definitions in the social and labor standards.

- ⇒ *SC Response: The social component of the standards was developed in collaboration with social auditing experts. The SC believes the standards to be auditable and recognizes that detailed auditing guidance will be needed for this section of the standards. The standards are similar to those from other Aquaculture Dialogues, which have been undergoing audits and the SC plans to take lessons learned from that process into the SAD auditing guidelines. Specific suggestions from this public comment will also be useful in defining the auditing guidelines. The SC recognizes that the social standards require “interview-based” audits and will require auditors trained in this area. In the short run we expect social auditors to conduct SAD audits in combination with the environmental auditor. We expect over time that a single auditor with have both skill sets.*
- A number of stakeholders highlighted the need to harmonize social standards across Dialogues.
  - ⇒ *SC Response: During the development of the SAD standards, SC members did discuss harmonization of cross-cutting issues with the Steering Committee members from other Dialogues. However, harmonization was not always feasible given differences in timing of the Dialogues and the different issues around each species. The SC agrees that it will benefit the ASC to initiate a review and harmonize, where appropriate, the standards for labor and community interactions with input from their Technical Advisory Group. Harmonization does not imply that the standards are identical due to differences in production systems and scale of operations.*

## **VIII. Smolt**

- The majority of the comments received on the smolt standards related to the proposal to restrict the use of smolt produced in open systems. Comments included a range of viewpoints, including many opposing views.
  - ⇒ *SC Response: The SC noted that the viewpoint expressed in this round of public comment was quite similar to what was received during the first public comment period. The SC continues to believe it is important for smolt production to transition to more closed systems over time and these standards are one way to encourage that shift. Grow-out sites that source smolt from open systems will be ineligible for certification immediately in areas with native salmonids, and within 5 years in areas without native salmonids. The rationale behind this is explained in the standards document, and is centered around concerns about a broad range of impacts associated with open net pen smolt production and the fact that the vast majority of salmon smolt production takes places in closed or semi-closed systems, where impacts can be significantly reduced in a way that is not possible in fully open systems.*
- There were a number of requests for clarification about how to interpret some of the standards.
  - ⇒ *SC Response: The SC added a number of clarifications to the standards and associated appendix. Some comments asked whether these standards would apply to trout production. There is a separate standard and Dialogue (the Freshwater Trout Dialogue) for the production of trout in freshwater.*