

Salmon Aquaculture Dialogue

Steering Committee Summary Response to Public Comment on SAD First Draft Standards May 23, 2011

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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 draft standards released on August 3, 2010. The document also includes a summary of the SAD Steering Committee review of the comments and how they, in some instances, incorporated them into a revised draft. The first Public Comment period lasted two full months and closed on October 3, 2011.

Significant revisions were made between the first and second 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 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>.

I. General comments

- A number of stakeholders raised questions about auditing guidelines
 - ⇒ *SC Response: The SC added some clarification about auditing on areas where major questions were raised about auditability or interpretation of the standards. However, not all of these areas were clarified in the standards document. A complete auditing guidance document will be developed after the release of the final standards.*
- A number of stakeholders said that insufficient attention was paid to implementation and auditing challenges.
 - ⇒ *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 hopes that additional farm-level, desktop “test audits” of the second draft of the standards will provide further constructive suggestions for ways to*

streamline implementation and ensure the standards are auditable while also achieving their goals.

- Many comments expressed a range of views on the rigor of the first draft of the standard and on the theory of change of the SAD.
 - ⇒ *SC Response: The SC has spent a lot of time negotiating a balance of the set of standards. The goal is to minimize or reduce key negative impacts while also being at a level where enough producers strive to achieve them to bring about change. For some individual impacts or issue areas, SC members found common ground on performance levels that were recognized as environmentally or socially good and at the same time achievable by some or many producers. In other areas, there was much more debate about how to balance setting environmental and social performance levels appropriate for an eco-label with achievability in the short and medium term. In the most challenging areas, the SC sought to develop innovative solutions that addressed the core interests of the range of stakeholders. On any given standard, individual SC members may have a range of views. As a package, the SC believes the standards represent an important step forward in defining environmentally and socially responsible salmon production.*
- Several stakeholders commented on the need to better incentivize closed containment and continuous improvement in the standards
 - ⇒ *SC Response: The standards create incentives for continuous improvement and enhanced transparency around impacts of farms on wild populations and ecosystems. Under the standard, farms must make public their on-farm sea lice data, as well as results from monitoring in the wild. In addition, the ASC will collect over a dozen data points from farms that will help all stakeholders make informed judgments about how to best reduce impacts over time. In addition, closed systems are exempt from certain standards.*
- Several stakeholders raised concerns that some indicators appeared to be out of the farmer's control
 - ⇒ *SC Response: Significant discussion has been dedicated to balancing farm-level responsibility within the broader context of cumulative effects and ecosystem understanding. The SC believes that some pre-conditions of knowledge are important, such as a basic understanding of vulnerable time periods for wild migrating salmonids in the area of production. The SC believes that a salmon producer does have a portion of responsibility for the potential cumulative impacts that a farm and neighboring farms might have on the surrounding environment and ecosystem, and that demonstrating environmental leadership requires looking beyond the farm in some instances.*
- Several requests to revisit decision on including fish welfare standards.
 - ⇒ *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. There is potential to partner with existing or future fish welfare certification schemes and to coordinate auditing processes should that be desired. The SC would like to reiterate that although the SAD does not comprehensively address farmed fish welfare or incorporate slaughter welfare standards, that many aspects of farmed fish welfare are addressed under the standard through environmental and fish health standards.*

II. Principle 1

- Many groups raised concerns with 1.1.5 (related to import laws)
 - ⇒ *SC Response: Standard 1.1.5 was edited to more specifically reflect the core issue of concern behind the prior version of the standard—transparency of therapeutic and chemical use to the buyer.*
- Concerns and questions were raised about the international scope of Principle 1
 - ⇒ *SC Response: The SC has removed the term international from this principle and criteria. The standards under this principle relate specifically to operation in a country and not to international treaties. In some instances where international treaties and conventions are applicable, they are mentioned in the relevant thematic area throughout the rest of the standards document.*
- Several stakeholders expressed concerns about the ability to audit and the information needed to demonstrate compliance.
 - ⇒ *SC Response: Details of information needed to demonstrate compliance will be included in the detailed auditing guidance document that is being developed to accompany the standards. The standards under Principle 1 are also consistent with those from other Aquaculture Dialogues that are currently undergoing audits and more detailed field testing. Should there be any significant concerns related to auditing raised during those audits, that information can be used to help refine the final version of the SAD standards and their auditing guidance, as appropriate. The SC recognizes that some of the documents needed to audit these standards will be physically located at the company's headquarters, rather than at the farm site.*

III. Principle 2

- A number of comments related to the request to consider a variety of benthic faunal indices and to standards for sites with hard bottoms.
 - ⇒ *SC Response: The SC broadened the standard related to faunal indices to allow for four options. It is the hope of the SC that farms can then use whichever index is most appropriate to their jurisdiction. 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 second draft standards therefore do not address this issue. The SC welcomes additional comment for specific suggestions for a standard to address this.*
- A number of comments related to the need to clarify and potentially revise the performance threshold related to fines in feed.
 - ⇒ *SC Response: The standard and associated appendix related to fines in feed has been edited to be clearer. The standard relates to the amount of fine, or dust-like, particles in feed and not to uneaten feed pellets that may pass through a pen during feeding. A number of comments from Chile raised concerns with the stringency of the standard. Upon review, the SC believes that these were due to a mistake in the Spanish version of the document. The standard relates to the level of fines in the feed at delivery to the farm (farm-gate), not at the point of entry to the cage. Feed experts assure us that this standard should be achievable in all jurisdictions.*

- A number of comments related to the need to clarify what was intended by standard 2.4.1 related to documentation about sensitive species and requesting more concrete siting standards with regards to such species
 - ⇒ *SC Response: The SC has worked with experts to refine and clarify the requirements around identification and assessments of sensitive or protected habitats and species around farms. Additionally, a siting standard related to protected areas has been added.*
- A range of stakeholders requested that farms be allowed to define their own site-specific AZEs if they have used generally accepted modeling systems and video surveillance systems. Some stakeholders suggested that this become a requirement.
 - ⇒ *SC Response: The SC agrees that there are benefits to the identification of site-specific AZEs through scientifically sound modeling and surveillance systems. Doing so helps to ensure that sampling is taking place in the areas that are most appropriate for the protection of benthic health around farms. The standard has been revised as follows: For sites where a site-specific AZE has been determined using a valid modeling and video surveillance system (or other verification monitoring), farms will use the site-specific AZE and sampling stations based on actual depositional patterns; Additionally, within 3 years of the publication of the SAD standards, all certified farms must have undertaken the appropriate analysis to determine the site-specific AZE and depositional patterns. The SC is still working to define the attributes required of a modeling system needed for it to be accepted under the SAD standard. However, the SEPA AUTODEPOMOD modeling system is considered to be an example of a credible and robust system. Additional information on SEPA's modeling requirements is available at http://www.sepa.org.uk/water/water_regulation/regimes/aquaculture/marine_aquaculture/modelling.aspx.*
- A range of stakeholders suggested that the standards allow for the use of alternative acoustic deterrent device technology that has been designed to minimize unintended effects on marine mammals.
 - ⇒ *SC Response: 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 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.*
- Multiple stakeholders commented that the standard should incorporate some allowance for a farm to take lethal action against a predator
 - ⇒ *SC Response: The SC revised the approach to minimize mortalities of wildlife, including predators, due to interaction with a farm. The standards now set a threshold related to a maximum number of lethal incidents, covering both intentional lethal action of a nuisance predator and incidents such as entanglement that may lead to death of a predator. The standards set special protection related to endangered species and also set requirements to ensure that any intentional lethal action is a last resort. Lastly, the standards require full transparency around any lethal incidents.*

- Regional differences: consider regional differences in environmental baselines and conventional standards
 - ⇒ *SC Response: The SC has attempted to take into account regional differences in specific standards, while preserving the intent of having consistency across a global standard. For instance, for benthic biodiversity sampling, the standards allow for four different options, permitting farms to use the methodology that is most common and applicable to their region.*

IV. Principle 3

- Stakeholders commented on what they viewed as the appropriate level of responsibility for the individual farmer. They expressed a range of views on compulsory area-based management, measuring cumulative impacts, monitoring wild fish, and linking farm actions to measurements in the wild.
 - ⇒ *The SC devoted extensive conversations to addressing these comments and attempting to find solutions that addressed stakeholders' core concerns. The SC believes that a salmon producer does have a portion of responsibility for the potential cumulative impacts that a farm and neighboring farms might have on the surrounding environment and ecosystem. At the same time, the SC sees the enormous benefits of mandatory area-based management to control on-farm diseases, as well as potential impacts on the environment. Because of these benefits, the standard requires participation in an area-based management scheme, even if a farm's jurisdiction does not require it. The SC hopes the standard encourages regulators in all jurisdictions to continue the trend of developing area-based management. In the absence of regulation, robust voluntary schemes would satisfy the standard. This will require leadership on behalf of a farm seeking certification. Farms will also need to show leadership around the issue of sea lice and the potential effects of lice on wild salmonids. The SC believes it is appropriate to require farms to understand their potential impact on wild salmonids by monitoring lice levels on wild fish. A farm will likely do this monitoring in partnership with researchers, NGOs, regulators and/or other farms in the area-based management scheme. The monitoring results must feed back into the management decisions of the farm and the area-based management scheme. These standards reflect best practice and, if adopted more widely, will represent an important step forward on the important issue of farms' interaction with wild populations.*
- A range of views on standards related to sea lice were expressed in the comments. Many encouraged a more regional approach and more species-level detail. Differing views were expressed on whether existing government regulations are sufficient.
 - ⇒ *SC Response: The SC agrees that maximum on-farm lice levels are best set regionally and based on a total allowable lice load from all farms in an area-based management. The revised draft standards reflect this approach. The standards require that area-based management schemes take into account the results of wild fish monitoring when setting maximum lice loads. In addition, for an individual farm seeking certification, the draft standards include two options for stakeholder comment related to reduction of lice levels on farms decreasing to near zero at certain times or if certain conditions are met.*
- Many stakeholders expressed concerns about scientific basis for lice standards and definition of areas with wild salmonids
 - ⇒ *SC Response: See above for the revised approach on sea lice levels. Regarding the definition of areas with wild salmonids, the definition reflects research into the potential reach of impacts,*

such as lice, as well as a recognition that habitat isn't static and most of the salmon growing regions in the Northern Hemisphere have the potential to be habitat or a migrating zone for wild salmon and sea trout. The purpose of the definition is only to define which farms need to implement an extra layer of precaution around their potential impacts on wild salmonids.

- Several stakeholder groups suggested that the SAD prohibit certification of open net pens in areas considered most ecologically sensitive.
 - ⇒ *SC Response: The SC struggled with the idea with a global standard that would prohibit farming in certain areas. Instead, the standards require an assessment of sensitive habitat, potential impacts on that habitat and mitigation steps around those impacts (standards under 2.4). In addition, a farm's impact on wild salmonid population is addressed through the requirements around wild monitoring and the management consequences if that monitoring reveals a problem.*
- In relation to the first draft escapes standards, several groups expressed concerns that the standards were unworkable, and a range of differing views were expressed on whether they were sufficiently stringent or too stringent
 - ⇒ *SC Response: The SC revised the escapes standards based on public input, in particular to make them clearer and to drive the industry toward a goal of zero escapes.*

V: Principle 4

- Many stakeholders commented on the proposed standards related to forage fish dependency ratio for fishmeal and fish oil (FFDR). The suggestions ranged from deleting the standards because of concerns that this would limit omega-3 levels in the final product, to changing the calculation methodology to setting the threshold at a stronger level.
 - ⇒ *SC Response: The SC recognizes the full range of perspectives on this issue and decided to keep the standards related to FFDR, making some edits to the standard in terms of options for calculating oil inclusion. The standards seek to ensure farmers can produce a nutritious fish while using limited marine resources efficiently. The continued expansion of the aquaculture industry will require that salmon farmers continue the trend of reducing dependence on raw materials from small pelagic fisheries. The standards are intended to encourage continuation of this trend, the use of trimmings and byproducts, and innovation to develop alternative sources of omega-3s in feed.*
- A number of stakeholders commented on standards related to the sourcing of non-marine feed inputs. Specific comments ranged from: including standards related to the sourcing of all important non-marine feed ingredients; building a specific standard related to certification of soy in the long term; proposing to disallow GMO ingredients in feed to allowing all use and not requiring transparency about use of GM ingredients.
 - ⇒ *SC Response: The SC has added a standard that requires soy in feed to come from a certified source within 5 years of the publication of the SAD standard. Soy is a primary key vegetable ingredient in most salmon feeds and a credible certification scheme has already been developed. Simultaneously, the SC recognizes the limited influence of the salmon farming sector within the broader context of agricultural commodities. With regards to transgenics, the SC has written standards that seek to ensure transparency in the use of any transgenic feed ingredients. Transparency is crucial for the buyers of the farmed salmon and will let retailers easily set any*

additional screens on the product. The SC considered any ingredient to be genetically modified if more than 1% of the ingredient contains GM material. This definition is consistent with EU policy, which recognizes that non-GM commodities may be contaminated with trace amounts of GM plants.

- Many stakeholders commented, often with opposing viewpoints, on the strength of the standards related to sourcing of fishmeal and fish oil.
 - ⇒ *SC Response: The SC believes that the revised draft standards represent an improvement over existing practice in regards to sourcing and chain of custody of fishmeal and fish oil in salmon feeds. The suite of standards includes immediate and medium term steps towards improving the sustainability of feed ingredients. Each standard must be met as they were designed to complement each other. Regarding concerns raised about the Fishsource scoring system, the SC accepts it as an interim measure for gauging the sustainability of fisheries. The standards related to a minimum Fishsource score were updated based on new scores for forage fisheries that Fishsource released in May 2011.*
- 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 all 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.*
- A number of stakeholders commented on standard 4.7.5 related to the requirement that biocides used for anti-fouling be approved in the EU or US. Several comments suggested that anything legal in any producing jurisdiction should be acceptable.
 - ⇒ *SC Response: The SC developed this standard specifically with the intent to go beyond legal requirements in some jurisdictions. Experts have told the SC that the EU, US and Australia have among the best regulatory oversight of biocides. The EU and Australia are currently completing thorough analyses of anti-foulants and are reviewing new substances that may be alternatives to copper-based biocides.*
- A handful of stakeholders suggested that standard 4.3.4 allow the use of byproducts and trimmings of species listed by the IUCN as vulnerable, as long as they originate from a healthy subpopulation of the species.
 - ⇒ *SC Response: The certification of discrete fisheries of species that are more broadly listed as “vulnerable” is currently an issue under debate within MSC stakeholder groups. Given this, and the complexity around this issue, the SC is not comfortable making an exception for subpopulations.*

VI. Principle 5

- A significant number of comments requested additional definitions and clarification of terms.

- ⇒ *SC Response: In this version, the SC added or refined definitions and intent for a number of standards and terms. Additionally, a complete auditing guidance document and auditor checklist will be developed for the final standards.*
- Stakeholders expressed a range of views on how best to address potential impacts of therapeutic use, debating whether it is appropriate to cap use, or to measure chemicals in the benthos.
 - ⇒ *SC Response: Standards related to the use of therapeutants have been revised and clarified significantly since the first draft of the standards. The SC decided that measuring and controlling therapeutic use was a clearer way to address potential negative impacts of therapeutic use, as compared to the proposal in the first draft to measure therapeutants in the benthos. The parasiticide treatment index under Criterion 5.2 is meant to set a threshold for toxic parasiticide use on certified farms. The rationale and additional information section under 5.2 contain a number of clarifications and definitions that seemed important based on the public comments. The SC welcomes input regarding how the proposed parasiticide treatment index could be altered to provide a more direct measure of and limit on parasiticide use. The intention is to create a standard that can be updated to require a reduction in the amount of toxic parasiticide use over time.*
 - 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. 20% mortality (standard 5.1.5) might be seen as an average for the industry. However, the SC understands that setting a mortality standard today that is more stringent than the one in the draft would leave producers with a great deal of uncertainty about whether they can achieve the standard, even with best biosecurity practices. This 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 lowered significantly over the coming years as more knowledge accumulates. The SC believes that this standard, in combination with other standards under criterion 5.1 and principle 5, should noticeably reduce the risk related to diseased salmon in the farms.*
 - On the issue of biosecurity during fish transport, there was a shared intent or a broad range of stakeholders but differences in opinion on how to implement.
 - ⇒ *SC Response: Standards related to biosecurity during fish transport have been revised in an effort to better apply to multiple regions and reflect best practice from a range of areas. Further comment on this issue, to ensure that the standard ensures a high level of biosecurity in all producing regions, is appreciated.*
 - Several stakeholders asked for there to be recognition of the source of on-farm disease in the standards.
 - ⇒ *SC Response: The SC has always recognized that many, though not all, of the pathogens and parasites on farms are a result of farmed salmon's exposure to pathogens that exist in the marine environment. The purpose of the SAD standards is to minimize potential negative environmental and social impacts. Therefore, for naturally occurring pathogens and parasites in a region, the standards focus on potential effect on wild fish that can result from the amplification of pathogens and parasites as a result of there being additional hosts on farms.*

- Some stakeholder requested that the SAD standards recognize production systems that demonstrate containment and separation from the wild through exemptions or reduced intensity of monitoring
 - ⇒ *SC Response: Some exemptions or alternatives for closed systems have been built into the revised draft of the standard. However, the SC believes that a desktop “test audit” of a closed production system against the standard during this public comment period would provide information needed to ensure the standards are applicable to closed systems and address the key impacts from closed systems.*

VII. Principle 6

- Several groups raised concerns about the 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. The SC recognizes that the social standards require “interview-based” audits and will require auditors trained in this area. Until there exist auditors trained in both environmental and social audits, it will be necessary to have social auditors conduct SAD audits in combination with the environmental auditor. In this revised version of the standards, a small amount of further auditing guidance has been added. However, the vast majority of this work will take place after the finalization of the standards. Additionally, the ASC has recognized the importance of working with auditors that are trained both environmental and social auditing.*
- A range of views on working hours were expressed, ranging from setting a stricter limit on maximum working hours to allowing for greater flexibility given the nature of the work.
 - ⇒ *SC Response: The SC recognizes that there is a shift nature (e.g. X days on, X days off) to some positions on salmon farms. Clarification on the allowance for this was added to the document. The intent and actualization of the standard is to ensure that overtime is voluntary or agreed to under a collective bargaining agreement, and that any shift nature of the work was agreed to by the employee (i.e. that they were aware of this when taking the job or it was agreed to under a new contract).*
- A range of views on the proposed percentage of grievances that need to be resolved were expressed, ranging from all grievances needing to be resolved to the removal of the standard.
 - ⇒ *SC Response: The revised standard requires 100% of grievances to be addressed, meaning they are acknowledged and received, move through the company’s process for grievances, and they generate corrective action when necessary. The SC did not find a fair or practical way to require that a certain percentage of grievances be “resolved” to the satisfaction of all parties involved.*
- Several organizations commented on overlaps between legal requirements and the social standards.
 - ⇒ *SC Response: The SC recognizes and agrees that there is significant overlap between standards under Principle 6 and the law in many countries. The SC still felt it important to include the core ILO principles under this standard, recognizing that compliance with the law in many jurisdictions on some of these standards will mean that producers can pass specific standards. The SC*

believes that auditing of these issues in countries with stringent labor regulations will be streamlined.

VIII. Principle 7

- The public comment asked for clearer definitions and for more detailed guidance in conducting audits, and stakeholders highlighted redundancies in the standards.
 - ⇒ *SC Response: A complete auditing guidance document and auditor checklist will be developed after publication of the final standards. For this draft, a series of clarifications were added, standards were revised or removed to eliminate identified redundancies and to further clarify the applicability of the standard. In particular, standards related to indigenous territories were revised and the standard related to potential health impacts on communities was refined.*

IX. Smolt

- Many stakeholders noted that the smolt standards were not complete enough for comprehensive comment. Stakeholders also encouraged that the SAD SC learn from, and harmonize with, the Freshwater Trout Dialogue (FTAD) standards where feasible.
 - ⇒ *SC Response: The SC recognizes that the first draft of the smolt standards were incomplete, and therefore many stakeholders were unable to provide comments. The SC agreed that harmonization with the FTAD was desirable and took that into account in developing this draft. The SC hopes that stakeholders will take a detailed look at the proposed standards related to the smolt producer in this version and provide thoughtful comments.*
- The majority of the comments received on the smolt standards related to the proposal to restrict the use of smolt produced in open systems in grow-out facilities that are certified under the SAD standards. Comments included a range of viewpoints, including many opposing views.
 - ⇒ *SC Response: The SC spent a significant amount of time discussing and debating this issue. Ultimately, the SC decided to maintain the intent of the restriction proposed in the first draft. 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 these impacts can be significantly reduced in a way that is not possible in fully open systems.*