

Haarlem, 20<sup>th</sup> of October 2021

**Matthew Thompson**

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Dear Matthew,

Many thanks for taking the time to provide your comments on the GSSI Benchmark Framework v2.0.

GSSI is committed to a transparent benchmark process with opportunity for engagement and comments. Following the consultation, the comments received from **Anderson Cabot Center for Ocean Life** and other stakeholders have been carefully reviewed by our Expert Working Groups. Responses to each of the comments are provided in this and other letters. After careful deliberations, the GSSI Steering Board concluded the comments had been sufficiently addressed and consequently, approved the Benchmark Framework v2.0.

Version 2.0 of the GSSI Global Benchmark Tool, which includes the Benchmark Framework v2.0, was successfully launched on October 20<sup>th</sup> during the GSSI Partners Meeting.

The response to each of the comments is structured as follows:

1. Description of the component: Essential or Supplementary and the corresponded numeration
2. Text of the Component
3. Submitted Comment
4. Answer from GSSI
5. Conclusion [old part in black] [new part in blue]
6. References [old part in black] [new part in blue]

The answers to the comments and conclusions of the components make use of the GSSI benchmark language, including the following acronyms:

EWG: Expert Working Group  
EC: Essential Component  
SC: Supplementary Component

## ■ Section C – Aquaculture

### ESSENTIAL COMPONENT C.1.08

#### **Component text**

The standard requires the aquaculture facility to have operational fish health management practices. Evidence must be shown that these address the following elements (where relevant to the species, scale, and production system covered by the Standard's scope):

- Effective biosecurity
- Identification and use of suitable available vaccines
- Introductions and transfers of farmed animals (where relevant, which is overseen by an aquatic animal health professional).

#### **Guidance text**

It is expected that the standard will contain sufficient elements and/ or audit of culture practices for an operational program relative to the scale, species, and production systems covered by the standard's scope, including a focus on disease prevention (e.g. the use of vaccines). The content of the measures are expected to be overseen (but not necessarily full time employment) of an aquatic animal health professional.

#### ■ **Anderson Cabot Center NEAQ**

The proposed change includes adding the word "suitable" before "available vaccines" in bullet point 2 of the Component. There is no corresponding Guidance on how "suitable" should be evaluated, as such; it is open to too much interpretation. Recommend that "suitable" be defined, for example: "Suitable vaccines are defined as those that have been shown to be effective against known diseases that negatively impact the species and production system being used in the country/region of production, and that are commercially and economically available.".

#### ■ **GSSI response**

Based on the comment of Anderson Cabot Center NEAQ, the Guidance text has been changed.

A definition for "suitable" has been included in the final Guidance text.

#### **GSSI Essential Component C.1.08**

**Component text:** The standard requires the aquaculture facility to have operational fish health management practices. Evidence must be shown that these address the following elements (where relevant to the species, scale, and production system covered by the Standard's scope):

- Effective biosecurity
- Identification and use of suitable available vaccines
- Introductions and transfers of farmed animals (where relevant, which is overseen by an aquatic animal health professional).

**Guidance text:** It is expected that the standard will contain sufficient elements and/ or audit of culture practices for an operational program relative to the scale, species, and production systems covered by the standard's scope, including a focus on disease prevention (e.g. the use of vaccines). The content of the measures are expected to be overseen (but not necessarily full time employment) of an aquatic animal health professional. [Suitable vaccines](#)

are defined as those that have been shown to be effective against diseases that negatively impact the species and production system concerned and that can be used economically.

## REFERENCES

Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture.

### ESSENTIAL COMPONENT C.3.01

#### **Component text**

The standard requires that the aquaculture facility and its daily operations ensure that good culture and hygienic conditions are maintained. Relevant aspects include proper management of all chemicals, fuels and feeds including their safe storage

#### ▪ **Anderson Cabot Center NEAQ**

Example of incorrect application of the component during the ASC Scope Extension process (Status of Guidance comment).

#### ▪ **GSSI response**

Based on the Public Consultation comments, no change has been made.

No further change to this component is recommended because the statement “Relevant aspects include proper management of all chemicals, fuels and feeds including their safe storage” added to the component is seen as adequately addressing this.

### **GSSI Essential Component C.3.01**

**Component text:** The standard requires that the aquaculture facility and its daily operations ensure that good culture and hygienic conditions are maintained. Relevant aspects include proper management of all chemicals, fuels and feeds including their safe storage.

**Guidance text:** This is a general Essential Component that covers a range of potential issues depending on the type of production system, species being cultured, and the local environment, and as such there is a need for flexibility in how consistency is achieved. It is expected that the following issues would be addressed and the systems verified to be operational:

- Appropriate storage of chemicals and fuel (e.g., stored in a lockable, labeled facility, limited access by personnel, leakage prevention - all based on Safety Data Sheets (SDS) (see figure 4.14 of the A Guide to The Globally Harmonized System of Classification and Labeling of Chemicals (GHS), available at: [www.osha.gov/dsg/hazcom/ghsguideoct05.pdf](http://www.osha.gov/dsg/hazcom/ghsguideoct05.pdf))
- Appropriate storage of feed (e.g., stored separately from sources of contamination, accurately labelled, keeping medicated and nonmedicated feed separated.)
- Appropriate pest control (e.g., prevent contamination of feed, chemicals by rodents or insects etc.)
- Domestic sewage control/disposal to avoid local contamination
- General farm waste (e.g., empty feed bags, household rubbish, food containers etc.).

## REFERENCES

Paragraph 29, 34 & 52 of the Technical Guidelines on Aquaculture Certification.

### ESSENTIAL COMPONENT C.4.05

#### ***Component text***

The standard prohibits the use of whole fish as a direct feed source in grow-out.

#### ***Guidance text***

0% of feed at any time during production (under the scope of certification) may contain “whole fish” or “wet fish”, which includes any form of uncooked wet fish (whole or chopped or frozen etc.), which includes direct feed, supplemental feeding, or on-farm made applications. Alternatives would be to require 100% use of commercial dry pelleted feeds.

Verification is expected to include a suitable review of evidence, such as feed use records, visual observation, and financial records in aquaculture industries where this is common practice.

A non-applicable (N/A) designation is only acceptable where 100% of production under the scope of the standard (including species, production intensity and production systems covered) uses entirely commercial dry pelleted feeds (e.g., Atlantic salmon).

#### ▪ **Anderson Cabot Center NEAQ**

As highlighted in our overarching comments, it is evident that these clarifications to the Guidance are necessary to ensure the original intent of this component is appropriately applied. If this edit is approved, GSSI should immediately re-benchmark the MEL standard. Additionally, “whole fish” in the Component text should be changed to “wet or trash fish.” Please see our proposed edits to the GSSI Glossary definition of “wet fish” .

#### ▪ **GSSI response**

Based on the Public Consultation comments, the Component text has been changed.

The term “whole fish” will be changed to “raw fish” in the Component text. This is to provide more clarity on the intent of the Component.

The conclusion was that problems with this Component were due to the Component text, which was clearly confusing and at odds with the intention as understood by the EWG and elaborated in the now revised Guidance. Consequently, to provide more clarity on the intent of the Component, the phrase "whole fish" will be replaced with "raw fish". Revised Guidance as presented for PC already deals with the ramifications of raw fish, i.e. whole, chopped, etc. Therefore no further change to the Guidance will be needed.

## **GSSI Essential Component C.4.05**

**Component text:** The standard prohibits the use of **raw fish** as a direct feed source in grow-out.

**Guidance text:** 0% of feed at any time during production (under the scope of certification) may contain “whole fish” or “wet fish”, which includes any form of uncooked wet fish (whole or chopped or frozen etc.), which includes direct feed, supplemental feeding, or on-farm made applications. Alternatives would be to require 100% use of commercial dry pelleted feeds.

Verification is expected to include a suitable review of evidence, such as feed use records, visual observation, and financial records in aquaculture industries where this is common practice.

A non-applicable (N/A) designation is only acceptable where 100% of production under the scope of the standard (including species, production intensity and production systems covered) uses entirely commercial dry pelleted feeds (e.g., Atlantic salmon).

### **REFERENCES**

Paragraph 52 of the Technical Guidelines on Aquaculture Certification  
FAO (2011) Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture Principle 7

## **ESSENTIAL COMPONENT C.4.07**

### ***Component text***

Where applicable, the standard requires that the aquaculture facility has suitable measures in place to ensure that feed is used efficiently at the individual production unit level.

### ***Guidance text***

Suitable measures are expected to be part of a wider feed management system, such as the measurement of FCR (Feed Conversion Ratio) and FIFO (Fish-In vs. Fish Out) as well as documented records of visual feed response and staff training. Verification that the measures are operational and fit for purpose is also expected.

#### ▪ **Anderson Cabot Center NEAQ**

Text in the Guidance incorrectly defines FIFO as “Fish-In vs Fish Out”, when FIFO is explained as “Fish In Fish Out ratio” in the current GSSI Glossary. Since some schemes specifically refer to a “FIFO’ value, which implies the use of a specific methodology, suggest including Forage Fish Equivalency Ratio (FFER), and Forage Fish Dependency Ratio (FFDR) as other examples.

#### ▪ **GSSI response**

Based on the Public Consultation comments, the Guidance text has been changed.

FIFO definition was brought in line with the GSSI Glossary.

### **GSSI Essential Component C.4.07**

**Component text:** Where applicable, the standard requires that the aquaculture facility has suitable measures in place to ensure that feed is used efficiently at the individual production unit level.

**Guidance text:** Suitable measures are expected to be part of a wider feed management system, such as the measurement of FCR (Feed Conversion Ratio) and FIFO (Fish In Fish Out ratio) as well as documented records of visual feed response and staff training. Verification that the measures are operational and fit for purpose is also expected.

#### **REFERENCES**

Paragraph 33 & 52 of the Technical Guidelines on Aquaculture Certification.

### **ESSENTIAL COMPONENT C.6.03**

#### ***Component text***

The standard requires that where the deliberate use of wild seed is justifiable, it is collected in a manner that:

- Ensures controls are in place so that the collection of seed is not detrimental to the status of the wild target and non-target populations, nor that of the wider ecosystem. This requires a documented management approach that ensures those wild populations are not overfished and not subject to recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible, and avoids, minimizes or mitigates fishing impacts on essential habitats and on habitats that are highly vulnerable to damage by the fishing gear;
- Avoids the use of environmentally damaging collection practices;
- And ensures that the source fishery is regulated by an appropriate authority.

#### ***Guidance text***

Expected examples of “justifiable use” include where there is a lack of commercially-available hatchery-raised seed, inability/lack of technology to hatchery-raise the farmed species, or passive collection of molluscs. Justification could be offered at the standard or aquaculture facility level. Verification is expected to include the need to provide suitable evidence by the aquaculture facility (e.g., a summary report written by a credible 3rd party on the source fishery, a self-certification by the appropriate management authority, a 3rd party fishery certification that verifies suitable compliance).

A documented management approach is expected to follow

Component D.3.01 where the standard requires the existence of documented management approaches or other management framework covering the unit of certification and the stock under consideration, including management measures consistent with achieving management objectives for the stock under consideration. Expected outcomes of the management approach are described in the Guidance of D.6.01 Target Stock Status, D.6.05 Non-Target Catches, D.6.06 Endangered Species, and D.6.07 Habitat, respectively. Definitions of terms related to wild fisheries can be found in Section D terms of the Glossary.

Examples of environmentally damaging collection practices include blast, poison, and Muro-ami fishing practices.

## ▪ Anderson Cabot Center NEAQ

As highlighted in our overarching comments, it is evident that these clarifications to the Guidance are necessary to ensure that the original intent of this component is appropriately applied. To further clarify the intent of the component, we recommend adding the line “The collection of wild seed from endangered and overfished populations for farming (also known as fattening) is prohibited.” If this edit is approved, GSSI should immediately re-benchmark the MEL standard.

## ▪ GSSI response

Based on the Public Consultation comment, the Component and Guidance text has been changed.

Components C.6.03 and C.6.04 will be combined.

### **GSSI Essential Component C.6.03**

**Component text:** The standard requires that the aquaculture facility intentionally stocks hatchery-raised seed unless justification exists otherwise. In cases where such justification exists, the standard requires that where there is deliberate use of wild seed it is collected in a manner that:

- Ensures controls are in place so that the collection of seed is not detrimental to the status of the wild target and non-target populations, nor that of the wider ecosystem. This requires a documented management approach that ensures those wild populations are not overfished and not subject to recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible, and avoids, minimizes or mitigates fishing impacts on essential habitats and on habitats that are highly vulnerable to damage by the fishing gear;
- Avoids the use of environmentally damaging collection practices;
- And ensures that the source fishery is regulated by an appropriate authority

**Guidance text:** Standards are expected to encourage the use of hatchery raised seed as they become available (e.g. by including a deadline for use to become required in the standard, or a certain percentage of seed needing to come from hatcheries to be met for certification, etc.). Verification is expected to include a review of evidence of the source of seed stocked at the aquaculture facility. In case of production systems and species where only hatchery seed is used (e.g. Atlantic salmon) this GSSI Essential Component can be not applicable.

Expected examples of “justifiable use” include where there is a lack of commercially-available hatchery-raised seed, inability/lack of technology to hatchery-raised the farmed species, or passive collection of molluscs. Justification could be offered at the standard or aquaculture facility level. Verification is expected to include the need to provide suitable evidence by the aquaculture facility (e.g., a summary report written by a credible 3rd party on the source fishery, a self-certification by the appropriate management authority, a 3rd party fishery certification that verifies suitable compliance).

A documented management approach is expected to follow

Component D.3.01 where the standard requires the existence of documented management approaches or other management framework covering the unit of certification and the stock under consideration, including management measures consistent with achieving management objectives for the stock under consideration. Expected outcomes of the management approach are described in the Guidance of D.6.01 Target Stock Status, D.6.05 Non-Target



Catches, D.6.06 Endangered Species, and D.6.07 Habitat, respectively. Definitions of terms related to wild fisheries can be found in Section D terms of the Glossary.

Examples of environmentally damaging collection practices include blast, poison, and Muro-ami fishing practices.

## REFERENCES

Paragraph 48 of the Technical Guidelines of Aquaculture Certification.

## ESSENTIAL COMPONENT C.7.01

### **Component text**

The standard requires that the aquaculture facility establishes, implements, and maintains an appropriate system to minimize the unintentional release or escape of cultured species. This should include monitoring and management of the physical facilities and practices.

### **Guidance text**

An appropriate system is expected to be based on an evaluation of the likelihood of events and the magnitude of impacts on surrounding environment (where risk assessments are used they must use a suitable scientific method and taking into consideration, siting, culture practices, local environmental conditions, including extreme events, and other relevant uncertainties) according to the precautionary approach and possible impacts on surrounding natural ecosystems, including fauna, flora, and habitat. Specific requirements stated in the standard are acceptable.

Verification is expected to include a review of evidence of an operational and fit for purpose system.

The monitoring of the management practices could include but are not limited to:

- i) Measures for escape detection
- ii) Monitoring for and record keeping of escapes events
- iii) Suitable training of employees
- iv) Incident management and infrastructure, including response or recapture measures.
- v) Regular monitoring and maintenance of the culture system
- vi) Regular review and failure analysis
- vii) containment infrastructure

Relative to the species being farmed and the production system individual elements can be “Not Applicable” with these considerations.

### ■ **Anderson Cabot Center NEAQ**

Revisions to the Component and Guidance text could be misleading, due to the term “should” in the new component text: “This should include monitoring and management of the physical facilities and practices” and “could” in the new Guidance statement: “The monitoring of the management practices could include but are not limited to”. These terms open the Component and Guidance up to too much interpretation, likely leading to incomplete standards coverage in recognized standards (as evidenced in the overarching comments section of our comments). To ensure appropriate benchmarking, the edit to the Component should be changed as follows:



This shall include monitoring and management of the physical facilities and practices. If the issues with Guidance, highlighted in our overarching comments above, are addressed, we believe the original Guidance text in the current Benchmarking Tool is more suitable than the proposed revisions.

#### ■ **GSSI response**

Based on the Public Consultation comments, no change has been made.

This looks like an overarching issue -one that concerns language throughout the BM Tool and so is beyond the remit of Section C review alone. It might then be added to the generic Guidance issues raised by NEAQ and circulated to other EWGs and similarly be passed up to the GSSI Board. Perhaps some formal etymology as a linguistic advice might be sought here as the Oxford Dictionary describes “shall” and “should” similarly as denoting a “future obligation” amongst other things. “should/shall” for the Component and “could/can” for Guidance.

### **GSSI Essential Component C.7.01**

**Component text:** The standard requires that the aquaculture facility establishes, implements, and maintains an appropriate system to minimize the unintentional release or escape of cultured species. This should include monitoring and management of the physical facilities and practices.

**Guidance text:** An appropriate system is expected to be based on an evaluation of the likelihood of events and the magnitude of impacts on surrounding environment (where risk assessments are used they must use a suitable scientific method and taking into consideration, siting, culture practices, local environmental conditions, including extreme events, and other relevant uncertainties) according to the precautionary approach and possible impacts on surrounding natural ecosystems, including fauna, flora, and habitat. Specific requirements stated in the standard are acceptable.

Verification is expected to include a review of evidence of an operational and fit for purpose system.

The monitoring of the management practices could include but are not limited to:

- i) Measures for escape detection
- ii) Monitoring for and record keeping of escapes events
- iii) Suitable training of employees
- iv) Incident management and infrastructure, including response or recapture measures.
- v) Regular monitoring and maintenance of the culture system
- vi) Regular review and failure analysis
- vii) containment infrastructure

Relative to the species being farmed and the production system individual elements can be “Not Applicable” with these considerations).

### **REFERENCES**

Paragraphs 39 and 46 of the Technical Guidelines on Aquaculture Certification

## ■ Other comments

### STATUS OF GUIDANCE

Following the comment, the component and/or guidance text of the examples given by commenter are revised. These concerned C.4.05, C.6.03 and C.3.01. Their revised text can be found under the component specific revisions in this document.

The proposed definition change falls outside the scope of the work of this EWG. Understanding that this definition change would not change the status of the guidance, but clarify the original intent and help consistent application of the benchmark Framework, the GSSI Secretariat has discussed the change with the other Expert Working Group leads. They indicated that the change would require further review, as the guidance discussion was not part of the EWG Section A&B and Section D review. Therefore, in case the changes to C.4.05, C.6.03 and C.3.01 will not prove to solve the issues with interpretation, a revised guidance definition might be considered again.

Many thanks again for participating in the Public Consultation and we do hope that the above responses have been helpful. We look forward to a continued collaboration and dialogue going forward.

Kindest regards,

**Eva van Heukelom**  
Technical Manager