



ASC SHRIMP STANDARD REVISION

ASC Shrimp Standard v1.1 Revision:
Proposed Additional
Indicators for Impacts of New Freshwater
Crustacean Species

March 2020



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1. Purpose and Scope

The ASC proposes to extend the scope of the ASC Shrimp Standard to include additional freshwater crustacean species. This paper proposes additional indicators for inclusion in the standard to ensure the environmental impacts of these new species are addressed within ASC's Standard.

A gap analysis used to support the recommendation for the additional freshwater species is also available for comment.

2. Background

The [ASC Shrimp Standard v.1.1](#) is based on the decisions by the Shrimp Aquaculture Dialogue (ShAD) and sets requirements that define acceptable levels for the major social and environmental impacts of saltwater shrimp farming. The purpose of the ASC Shrimp Standard was and is to provide means to measurably improve the environmental and social performance of shrimp aquaculture operations.

The ASC Shrimp Standard covers seven principles regarding legal regulations, environmentally suitable siting and operation, community interactions, responsible operation practices, shrimp health management, stock management and resources use. Principles are then divided into different criteria and indicators, each with qualitative or quantitative requirements.

The current scope of the Standard includes species under the genus *Penaeus* and is oriented towards the production of *P. vannamei* and *P. monodon*¹. A Gap Analysis was conducted by the ASC to evaluate the possibility to add freshwater crustaceans to the ASC Shrimp Standard within the revision process. As a result of the gap analysis and further discussion with stakeholders and advice from the ASC Technical Advisory Group (TAG), it is proposed to add *Cherax spp.*, *Procambarus spp.*, *Astacus spp.* and *Macrobrachium spp.* to the Standard.

¹ The ASC's Technical Advisory Group (TAG) supported in November 2019 the proposal that based on [recent research](#) re. phylogenetic analyses of several shrimp within the family Penaeidae, the *Penaeus* genus should be used to define all potential new saltwater shrimp species. This also means that from the Shrimp Standard Review's public consultation of March 2020, references to the 'Litopenaeus' genus will be removed and replaced by 'Penaeus', and/or used interchangeably. Notably, the Whiteleg shrimp *may* be referred to by ASC as 'Penaeus (Litopenaeus) vannamei' – or 'P. vannamei' – and if so: this latter species refers to the same as the one listed in the scope of the Shrimp Standard v1.1 as 'Litopenaeus vannamei' or 'L. vannamei'.



The following elements were identified in the gap analysis, where Criteria/Indicators would be needed to ensure the potential environmental impacts of the farming of these novel freshwater species be assessed and addressed:

1. Freshwater abstraction
2. Freshwater discharge
3. Escape management
4. Non-native species
5. Wetland conservation
6. Metrics & data collection/analysis.

Of these, escapes are currently covered in the ASC Shrimp Standard v1.1 (6.1.2 and 6.1.3).

The development of metrics for these new species is the subject of a separate consultation paper.

3. Methodology

In order to address the identified freshwater environmental impact areas whilst maximising alignment across ASC's various standards, ASC has reviewed its current freshwater species standards for relevant existing content. Criteria and Indicators relevant to the elements listed above have been identified. These were taken from the current ASC freshwater species standards applicable for the freshwater crustacean species and production system assessed in the initial gap analysis². Indicators covering issues subject to specific projects (e.g. antibiotics, mangroves/wetlands) which are already part of the development of the aligned ASC Farm Standard are being excluded from this work. ASC is working to finalise this work as soon as possible – details can be found on the ASC website.

Table 1 below identifies the indicators proposed for the revised ASC Shrimp Standard. Should they be adopted, they will be transposed from the identified ASC freshwater Species Standards into the Principles of the revised ASC Shrimp Standard.

² See Document #9 in the March 2020 Shrimp Review Public Consultation publications.



4. Proposal: Freshwater indicators, criteria and requirements.

Table 1: Proposed additional Indicators for the revised ASC Shrimp Standard
Indicators have been taken from the ASC’s other freshwater Species Standards with the following codes denoting the origin standard of each Indicator (TL: Tilapia, PG: Pangasius, TR: Trout).

Criterion	Indicator	Description	Requirement
2.1 (TL)	2.1.1	Site location, history and stewardship activities matrix located in Appendix 1, Table 1 is completed and validated	Yes
2.2 (TL)	2.2.1	Demonstration that the crustacean species cultured is established ² and naturally reproducing in the receiving waters ^{3,4} of the operation on or before March 2014 ⁵	Yes
2.6 (TL)(TR)	2.6.1	Hectares of allowable wetland ⁶ conversion since 1999 ⁷	0 ha
4.2 (TL)	4.2.1	Presence and evidence of use of crustacean transport containers that have no escape path for these species	Yes
3.1 (TR)	3.1.3	All use of underground pumped water has been permitted by regulatory authorities	Yes
3.1 (TR)	3.1.4	Well depths are tested at least annually, and results made publicly available ²²	Yes
3.2 (TR)	3.2.5	Water-quality monitoring matrix completed and submitted to ASC (see Appendix II-B)	Yes
2.2 (PG)	2.2.4	Evidence ¹⁰ of no negative impacts on endangered species ¹¹	Yes
2.4 (PG)	2.4.1	Farm complies with water allocation ¹⁵ limits set by local authorities or a reputable independent institution ¹⁶ .	Yes



Notes from Table 1:

- 2** A non-indigenous species is considered established if it has a reproducing population within the basin, as inferred from multiple discoveries of adult and juvenile life stages over at least two consecutive years. Given that successful establishment may require multiple introductions, species are excluded if their records of discoveries are based on only one or a few non-reproducing individuals whose occurrence may reflect merely transient species or unsuccessful invasions. (National Oceanic and Atmospheric Administration)
- 3** Receiving water is defined as all distinct bodies of water that receive runoff or waste discharges, such as streams, rivers, ponds, lakes and estuaries (adapted from *World Health Organization*). This does not include farm-constructed water courses, impoundments or treatment facilities.
- 5.** Year of the ASC Shrimp standard publication v1.0 (March 2014)
- 4** Where there are no-discharge systems, or no discharge to receiving waters, standards 2.2.1 and 2.2.2 are not applicable.
- 6** Wetland is defined as lands where saturation with water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. (United States Environmental Protection Agency)
- 7** The year Ramsar contracting parties adopted strategic framework for the development of the Ramsar List.
- 8** For ponds established after the publication of the PAD standards
- 9** Exception made for discharge into water bodies belonging to the farm and without negative impacts to other water resource users
- 10** Farmers shall submit the result of a search of published and grey (e.g. local newspapers, magazines) literature. Statements from local communities and organizations shall also be produced
- 11** As set by IUCN and national authorities
- 15** Valid for both surficial water and groundwater. Surficial water is defined as “water collecting on the ground or in a stream, river, lake, wetland or ocean.” Groundwater is defined as “water beneath the earth’s surface that supplies wells and springs.”
- 16** A reputable independent institution can be a government organization, an academic institution or an organization that is not linked specifically to the aquaculture sector, but has generated water use parameters for the region, or is responsible for water allocation. Reputability of the institution shall be demonstrated by the farmer showing peer reviewed articles and/or reports on water allocation. Documents produced for a sector other than aquaculture are also acceptable. A track record of at least three years of operation must be available.
- 22** Well depths must be tested at similar times of the year, with results submitted to ASC. More detailed methodology will be provided in the Auditing Guidance document.

References

- [ASC Tilapia Standard v1.0](#)
- [ASC Trout Standard v1.0](#)
- [ASC Pangasius Standard v1.0](#)
- [ASC Shrimp Standard v1.1](#)