

Water Quality Criterion 2.7

Stakeholder Consultation

FAQ

March 2023

(last updated 1 March, 2023)



Contents

1. Why is ASC running a stakeholder consultation on Water Quality requirements?.....	3
2. ASC's species-specific standards already contain requirements on Water Quality? Why is ASC revising it now?	3
3. What is the goal of the revision of Criterion 2.7?	3
4. Why is addressing water quality important in fish farming?	3
5. What is eutrophication? And how does water quality affect eutrophication?	4
6. What is the difference between lentic and lotic systems? What are examples of lentic and lotic systems?	4
7. Why does identifying lentic and lotic systems relevant in fish farming?	4
8. How will the revised criterion help farmers in their production?	4
9. In summary, what is the proposal on Water Quality requirements?	5
10. What changes are we now applying to our Water Quality requirements and why? 5	
11. How can these changes help in ensure that they are addressing the risk eutrophication?	6
12. What are the requirements on reporting?	6
13. What happens if farms located near a waterbody do not reach an agreement?	6
14. Where can I find more information?	6
15. How can I participate and provide feedback?.....	7
16. What is the timeline for the new requirements?	7

1. Why is ASC running a stakeholder consultation on Water Quality requirements?

ASC seeks to gather stakeholders' comments, information, and perspectives regarding the proposal for Criterion 2.7 Water Quality. Specifically, ASC wishes to gather feedback on indicators and their sequence, metrics, clarity (criterion and annexes), implementation, and auditability of the requirements.

2. ASC's species-specific standards already contain requirements on Water Quality? Why is ASC revising it now?

The species-specific standards vary considerably in language and approach. Currently, there is also a lack of an area-based approach as it focuses predominantly on individual farm sites without consideration of the impacts of other farms that may operate on the same waterbody.

Due to the above-mentioned issues, ASC decided to revise the Water Quality requirements as part of the ASC Farm Standard development. The objective for Criterion 2.7 is to define indicators that collectively address impacts on water quality in all major production systems sited in or discharging into all different water types.

3. What is the goal of the revision of Criterion 2.7?

The Water Quality revision aims to define indicators that collectively address the impacts of aquaculture on water quality in all major production systems that discharge into different water types. A Technical Working Group (TWG) is supporting ASC with this revision. The TWG members list for Water Quality can be found [here](#) and the Terms of Reference can be found [here](#).

The proposal of the TWG categorises receiving waters according to their nutrient retention capacity based on hydraulic residence time, differentiating between still/slower flowing ('lentic') and faster flowing ('lotic') systems.

Overall, ASC believes that the proposal successfully achieves the aim of developing a method for water quality management that focuses strongly on cumulative impacts and the carrying capacity of a waterbody. This will strengthen the position of ASC farms when addressing water quality impacts.

4. Why is addressing water quality important in fish farming?

Focusing on water quality within the context of the ASC Farm Standard means addressing the risk of eutrophication. Eutrophication and its consequences are among aquaculture industry's greatest challenges. Eutrophication can impact all coastal or river stakeholders; and this is why it is for instance embedded in the UN Sustainable

Development Goals in the case of SDG 14 - Life below Water ("SDG 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution"; and SDG indicator "14.1.1 Index of coastal eutrophication and floating plastic debris density").

5. What is eutrophication? And how does water quality affect eutrophication?

Eutrophication occurs when the environment becomes enriched with nutrients, increasing the amount of plant and algae growth which can lead to the reduction of dissolved oxygen in water bodies. This can, in turn, kill or otherwise impact sensitive fish species with cascading effects on entire aquatic ecosystems and overall loss of biodiversity at local and regional scales. The general deterioration of water quality may also preclude water use by other communities and industries.

6. What is the difference between lentic and lotic systems? What are examples of lentic and lotic systems?

Lentic system are water bodies with still or slow flow such as lakes or reservoir. Lotic systems are water bodies with faster flow such as rivers.

Farmed species with production system discharging into lakes and reservoirs (cages or land-based systems) will be categorised as discharging into a lentic system. Meanwhile, farmed species with production systems discharging into rivers and canals will be categorised as lotic. For farmed species with production systems discharging into estuaries, fjords and open sea, the categorisation might not be so evident thus, those systems will need to assess the waterbody's HRT to categorise the receiving waterbody.

7. Why does identifying lentic and lotic systems relevant in fish farming?

The capacity of a waterbody to disperse nutrients is given by its hydraulic retention time (HRT). That is the time that a nutrient spends in a particular waterbody. Waterbodies with high HRT are more at risk of eutrophication since the dispersion of nutrients is low in those water bodies. The proposal establishes that a waterbody with an HRT <5 days should be categorised a lotic and those with an HRT >5 days as lentic.

8. How will the revised criterion help farmers in their production?

Addressing water quality helps farmers identify and understand their impacts to manage them better. With a more area-based approach, farmers will also be able to work together with others to better manage water quality beyond their farm.

On a wider level, ASC believes that the proposal successfully achieves the aim of developing a method for water quality management that focuses strongly on cumulative impacts and the carrying capacity of a waterbody. This will strengthen the position of ASC farms when addressing water quality impacts.

9. In summary, what is the proposal on Water Quality requirements?

Indicators within the proposal have been developed to identify two major considerations. First is the nutrient retention capacity of the receiving waterbody (categorisation: lentic/lotic). Second is to identify the susceptibility of at-risk water bodies to additional nutrient inputs (risk-based approach).

Where relevant, additional assimilative capacity assessment and coordinated area management actions are required to reduce the rate of change in the trophic status and prevent eutrophication of a waterbody.

In summary, the proposal uses innovative approaches to address previous issues in ASC standards, specifically by:

- Separating the requirements by lentic and lotic systems;
- Creating responsive feedback loops (as opposed to separate isolated indicators) as well as indicators that seek to identify risks before a negative impact happens;
- Creating meaningful landscape level measures;
- Focusing on the rate of change as well as specific limits.

10. What changes are we now applying to our Water Quality requirements and why?

The current standards contain requirements linked to an individual farm site, which might have limited or insignificant effects on a waterbody. The new water quality proposal deviates from that approach and moves to an approach based on risk in which the cumulative effect of multiple users is considered. This new approach acknowledges that imposing requirements at a farm level, irrespective of the waterbody's carrying capacity, is not enough to protect biodiversity and ecosystem function. Considering the cumulative nature of eutrophication, the new water quality proposal categorises receiving waters according to their nutrient retention capacity based on hydraulic residence time, differentiating between lentic and lotic systems. In this context, the indicators within the proposal have been developed to identify the nutrient retention capacity of the receiving waterbody and the susceptibility of at-risk water bodies to additional nutrient inputs. Where relevant, additional assimilative capacity assessment and coordinated area management agreements and actions are required to reduce the rate of change in the trophic status and prevent the eutrophication of a waterbody.

The Criterion 2.7 proposes 31 indicators grouped in 4 sub-criteria, each focusing on:

- Sub-criteria 1 (lentic systems): Understanding and monitoring the quality of the waterbody the farm operates in and its natural retention capacity of nutrients (potentially originating from other farms);
- Sub-criteria 2 (lentic and lotic systems): Understanding, measuring and managing the risk of the farm's contribution to eutrophication (nutrient load) of the waterbody;
- Sub-criteria 3 (lentic and lotic systems): Meeting requirements on managing nutrient inputs and outputs of the farm;
- Sub-criteria 4 (lentic systems): Participating in a coordinated management effort with other farms in the waterbody to avoid eutrophication.

11. How can these changes help in ensure that they are addressing the risk eutrophication?

The proposal seeks to simultaneously look at impacts as well as require preventative/precautionary measures against eutrophication. Consequently, some indicators are proposed to ensure farms understand their context and potential impacts (e.g. the ones that call for the Unit of Certification, or UoC, to "identify" certain conditions). Those indicators are connected to response indicators within the proposal. By requiring a comprehensive understanding of the context and within that, the potential impacts, the proposal seeks farmers to take actions before eutrophication is presented.

12. What are the requirements on reporting?

Farms discharging to lentic systems are required to report to ASC the results of the survey characterising its Waterbody Unit of Management (WUM).

13. What happens if farms located near a waterbody do not reach an agreement?

The proposal requires farms to monitor water quality to prevent eutrophication by identifying when a waterbody is starting to show signs of trophic status changes. For lentic systems, when this is identified, the proposal requires farms located in that at-risk waterbody to participate in an Area Management Agreement (AMA) to collectively monitor, prevent and mitigate eutrophication impacts. If farms do not participate or do not reach an agreement, farms located in that waterbody will not be in compliance with the proposed requirement.

14. Where can I find more information?

If you want to read more about the ASC Farm Standard and its development process, please click [here](#).

15. How can I participate and provide feedback?

ASC welcomes and encourages all interested stakeholders to take part in our survey or our workshops, please click [here](#) for the survey and [here](#) for all other information on ways to engage in the consultation.

16. What is the timeline for the new requirements?

ASC will conduct a stakeholder consultation of the water quality proposal in March-April and September 2023. The latter as part of the ASC Farm Standard consultation. The ASC Farm Standard will be released in Q2 2024 and will be effective a year after the release.