

# Benthic Impacts Revision

## Technical Working Group

### Terms of Reference

September 2020

#### Introduction

The Technical Advisory Group (TAG) Terms of Reference make provision for the formation of Technical Working Groups (TWGs) to support the technical and scientific work of the TAG. Typically, a TWG will be comprised of technical experts; external to ASC's governance bodies, and a member of the TAG acting as a sponsor; to facilitate communication and understanding between the TAG and the TWG and support the ASC technical lead. The ASC's Secretariat will provide logistical support to the group and a Project Lead from ASC will be appointed to provide the group with the required technical resources. An external facilitator may be also appointed.

#### References

[ASC Standard Setting Procedure](#)

[ASC Metrics Methodology](#)

[ASC Complaints Procedure](#)

[TAG Terms of Reference](#)

#### 1. Terms of Reference

##### 1.1 Background

During the preparation of the aligned [ASC Farm Standard](#) project, which will bring the current eleven species-specific Standards into a single farm-level Standard, the benthic impact requirements have been identified as highly diverse (in their approach and/or language) and in where significant variation exists, even if Standards cover similar production systems. With this in mind, ASC is revising the current requirements aiming to define Criteria/Indicators that collectively address the benthic impacts of aquaculture in all major production systems<sup>1</sup> that discharge into different water types<sup>2</sup>. A Technical Working Group (TWG) will be formed to support ASC in this revision.

##### 1.2 Statement of purpose of the Technical Working Group

The purpose of the TWG is to revise the current approach in the ASC Standards and recommend Criteria/Indicators that collectively address benthic impacts in all major production systems that discharge into different water types, based on the latest scientific knowledge and current best practices within the aquaculture industry.

##### 1.3 Terms of Reference

The TWG will have the following responsibilities:

- a) Review the current benthic indicator requirements;
- b) Analyse, discuss and collaborate in the development of recommendations for a revised indicator on benthic impacts;

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<sup>1</sup> Major production systems are: cages, suspended/off-bottom, in or on-bottom and land-based (point-discharge systems, e.g. ponds, race-way, flow-through and RAS).

<sup>2</sup> Water types are: marine, brackish, freshwater.

- c) Provide input into the development of the draft versions of the revised indicator on benthic impacts;
- d) Seek feedback from the TAG on the draft versions of the revised indicator prior to their public consultation;
- e) Assess and advise on stakeholders' comments after each public consultation;
- f) Decide when the final draft of the revised indicator is ready to be proposed to TAG for approval;
- g) Attend the TWG meetings or other in relation to this review as necessary and/or required by the Project Lead.

## 2. Membership

TWG membership shall aim to balance interests from the standard's key interest groups and geographical representation. All members should support the aims of the [ASC, its Vision and Mission](#), and commit to engaging constructively.

### 2.1 Technical competencies required:

Advanced degree in Environmental, Biology, Aquatic Animal Health, Sustainable Management, Aquaculture or other related science.

Experience in studying and addressing aquaculture benthic impact-related matters. This experience may come from working in academia or regulatory agencies.

**Table 1: TWG Members**

| Name               | Role                                      | Organisation                                    | Stakeholder sector | Primary region represented |
|--------------------|---|---|--------------------|----------------------------|
| Catriona Macleod   | Centre Head – Ecology and Biodiversity    | University of Tasmania                          | Academia           | Europe/Oceania             |
| Ian Payne          | Independent Expert/ASC Consultant         | Independent                                     | Independent        | Europe/Asia                |
| Ioannis Karakassis | Associate Professor, Dept. Biology        | University of Crete                             | Academia           | Europe                     |
| Jennifer Best      | Principal Specialist Scientist, Chemistry | Scottish Environmental Protection Agency - SEPA | Regulator          | Europe                     |
| Peter Cook         | TAG Sponsor                               | The University of Western Australia             | Academia           | Oceania                    |
| Peter J Cranford   | Independent Expert                        | Independent                                     | Academia           | America/Europe             |
| Nigel Keeley       | Senior Scientist                          | Institute of Marine Research                    | Academia           | Europe/Oceania             |
| Amy White          | Independent Expert/ASC Consultant         | Independent                                     | Independent        | Oceania                    |

## UPDATE MAY 2021

An ad-hoc group of experts was brought to the TWG to complement its expertise (e.g. in areas related to freshwater production). Table 2 present the list of ad-hoc experts:

**Table 2: Ad-hoc group of experts**

| Name             | Role  | Organisation | Stakeholder sector | Primary region represented |
|------------------|---|--------------|--------------------|----------------------------|
| John Dominic     | Independent Consultant                        | Independent  | Academia           | Africa                     |
| William Collis   | Team Leader                                   | WorldFish    | Academia           | Asia                       |
| Michael Phillips | Director of Aquaculture and Fisheries Science | WorldFish    | Academia           | Europe/Asia                |
| Malcolm Dickson  | Aquaculture and fisheries consultant          | Independent  | Academia           | Europe/Asia                |

### 3. Reporting requirements

3.1 The TWG will report to the TAG on January and July 2021 and January and July 2022, prior to the public consultation rounds allocated for those year.

Materials made available for review will include:

- White papers
- Meeting minutes
- Recommendations

### 4. Duration and review times

4.1 It is expected that the TWG will be active until the final recommendations for revised indicators in water quality are approved by the TAG. The TWG may be called upon to consider questions raised in the initial application of the new requirements.

**Table 2: TWG timeline**

|   | Date         | Activity  | Outcome/Deliverable   |
|---|--------------|---|---|
| 1 | SEP-DEC 2020 | TWG meetings  | Draft recommendations for revised benthic impact indicators for TAG endorsement for 1 <sup>st</sup> public consultation           |
| 2 | JAN 2021     | Present 1 <sup>st</sup> draft of TWG's recommendations for revised benthic indicators for marine cages to TAG for endorsement for public consultation | 1 <sup>st</sup> draft recommendations for revised benthic indicators for marine cages endorsed by the TAG for public consultation |
| 3 | MAR-APR 2021 | PUBLIC CONSULTATION   |   |

|   |                     |  |  |
|---|---------------------|--|--|
| 4 | MAY-<br>DEC<br>2021 | TWG meetings (public consultation follow up)   | 2 <sup>nd</sup> draft recommendations for revised benthic indicators for marine cages and 1 <sup>st</sup> draft recommendations for a revised indicator for other production systems and water types for TAG endorsement for public consultation |
| 5 | JAN 2022            | Present 2 <sup>nd</sup> draft of TWG's recommendations for revised benthic indicators for marine cages and 1 <sup>st</sup> draft recommendations for a revised indicator for other production systems and water types to TAG for endorsement for public consultation | 2 <sup>nd</sup> draft recommendations for revised benthic indicators for marine cages and 1 <sup>st</sup> draft recommendations for a revised indicator for other production systems and water types endorsed by the TAG for public consultation |
| 6 | MAR-<br>APR 2022    | PUBLIC CONSULTATION  |  |
| 7 | MAY-JUN<br>2022     | TWG meetings (public consultation follow up)   | Final draft recommendations for revised benthic indicators for TAG endorsement for public consultation   |
| 5 | JUL 2022            | Present final draft of TWG's recommendations for revised benthic quality to TAG for endorsement for final public consultation  | Final draft recommendations for revised benthic indicators endorsed by the TAG for final public consultation   |
| 6 | SEP-OCT<br>2022     | PUBLIC CONSULTATION  |  |
| 7 | NOV-<br>DEC 2022    | TWG meetings (public consultation follow up)   | Final recommendations for revised benthic indicators for TAG approval  |

## 5. Resources

Membership of ASC TWGs is voluntary and unpaid. Reasonable expenses will be paid for attendance at in-person meetings to cover travel and associated subsistence costs. Accommodation will be provided.