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4th October 2022

Our Ref: SCP210404.2

Re: Draft National Strategic Plan for Sustainable Aquaculture Development 2030 and SEA Environmental Report

Dear Sir/Madam,

We acknowledge your notice, dated 19th August 2022, in relation to the Draft National Strategy Plan for Sustainable Aquaculture Development 2030 (the 'Plan') and SEA Environmental Report.

The EPA is a statutory environmental authority under the SEA Regulations. In our role as an SEA environmental authority, we focus on promoting the full and transparent integration of the findings of the Environmental Assessment into the Plan and advocating that the key environmental challenges for Ireland are addressed as relevant and appropriate to the plan. Our functions as an SEA environmental authority do not include approving or enforcing SEAs or plans.

The EPA recognises the cultural and economic importance of the aquaculture sector to the rural economy in Ireland, but also acknowledges that aquaculture is an important sector that can potentially impact the marine environment through a number of pressures. Aquaculture can impact the marine environment through escaped farmed salmon, spreading of disease to native populations, disturbance to and displacement of fish, shellfish, birds and other wildlife populations, and water pollution, and is considered a pressure for a number of protected habitats.

The EPA's [Ireland's Environment - An Integrated Assessment](#) (SOER2020) addresses Ireland's marine environment stating that while our marine waters are clean and reasonably healthy, they are not as biologically diverse and productive as they could be. They are affected by several human-induced pressures including fishing, climate change and marine litter such as plastics.

As an island nation with an extensive marine area, Ireland needs to ensure that robust governance and legal frameworks are in place to protect marine ecosystems and the services they provide to society. There needs to be governance systems in place that coordinate and integrate the implementation of relevant directives where there are crossovers, such as those covering marine strategy, marine spatial planning, water quality, waste, biodiversity and protecting fish stocks.

Our observations in this submission are supplementary to those raised at the SEA scoping stage. The key points of this submission are highlighted below and relate to integration of the SEA into the Plan, transboundary consultation, alignment with other key national plans, monitoring of significant environmental effects, food waste prevention and management of end of life fishing gear. It will be important that the Plan provides solutions to address the key points raised in this submission to ensure that the Irish aquaculture industry is an environmentally sustainable sector of the economy.

1. Integration of SEA into the National Strategic Plan for Sustainable Aquaculture Development

The Plan should include clear commitments to implement the recommendations and mitigation measures identified in the SEA Environmental Report (SEA ER). The SEA ER proposes an extensive list of clear mitigation measures to enhance the effectiveness of the actions identified in the Plan. However, these mitigation measures have not been integrated into the Plan. The integration of the key findings in the SEA Environmental Report and the Plan will reinforce and maximise the potential for positive environmental outcomes.

In order to ensure the effectiveness of the environmental assessment, the integration of the SEA should be completed prior to publishing the final Plan.

2. Transboundary Consultation

The SEA ER should provide clarity regarding the level of transboundary consultation that has been undertaken in preparing the Plan and the associated SEA. It is clear that transboundary consultation has been undertaken with the appropriate authorities in Northern Ireland at scoping stage, however, it may be appropriate to undertake transboundary consultation with authorities in England, Wales and Scotland and any other EU Member States fishing in Irish waters, to address issues such as fish health/diseases. Where transboundary consultation has been undertaken with non-EU member states, the relevant requirements of the SEA protocol¹ under the ESPOO Convention should be taken into account and referred to.

3. Alignment with other key plans and programmes

As stated in the SEA ER, the Plan needs to be fully integrated into the national policy framework and be fully referenced by industry, as well as government departments and organisations. BIM should ensure that the Plan aligns with key relevant higher-level plans and programmes (e.g. River Basin Management Plan, Marine Strategy Framework Directive Programme of Measures, Seafood Development Programme) and is consistent with the relevant objectives and policy commitments of the National Marine Planning Framework.

¹ <https://unece.org/fileadmin/DAM/env/eia/documents/legaltexts/protocolenglish.pdf>

4. Monitoring & Implementation

Article 10 of the SEA Directive states that the significant environmental effects of implementing a plan/programme shall be monitored in order, *inter alia*, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. Table 9-3 of the SEA environmental report sets out the proposed SEA monitoring for any significant environmental effects of the implementation of the Plan. A robust monitoring and regulation system are important for minimising the impact of the aquaculture sector on the environment.

The SEA ER identifies one of the difficulties encountered in undertaking the SEA as the delivery of actions will be the responsibility of other organisations, and not within the remit of the plan maker (BIM). There is merit in considering the establishment of a high-level implementation group to ensure the delivery of the actions identified in the Plan.

5. Food waste prevention

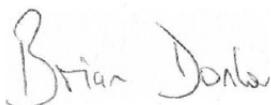
To support the stated vision for the Plan, the impact of process waste, in particular food waste, from the sector should be considered. Preventing food waste should be the top priority and any unavoidable food waste should be managed in accordance with the food waste hierarchy, maximising reuse and valorisation of resources. The Plan should also include a commitment to reduce food waste in line with EU and national policies.

6. Management of end-of-life fishing gear and Aquaculture Equipment

The Plan should take into account and reflect new and emerging requirements in relation to the design of fishing and aquaculture equipment and the management of end-of-life fishing gear (which includes aquaculture equipment). The Plan and the SEA ER should be aligned with, and identify, opportunities to support and advance commitments relating to the management and design of fishing gear in various legislation and national policies, including the Single Use Plastics Directive, the forthcoming Extended Producer Responsibility Scheme for fishing gear and Ireland's Whole of Government Circular Economy Strategy 2022-2023.

If you have any queries or need further information in relation to this submission, please contact Suzanne Wylde directly. I would be grateful if you could send an email confirming receipt of this submission to: sea@epa.ie.

Yours Sincerely,



Dr Brian Donlon

Senior Scientific Officer

Office of Evidence and Assessment

Appendix 1: Comments on the SEA Environmental Report

Relationship with other plans and programmes

Both the SEA environmental report and the Plan would benefit from inclusion of a clear schematic showing the hierarchy and relationships of the key seafood, marine and fisheries related plans e.g. Seafood Development Programme, National Strategic Plan for Sustainable Aquaculture Development, FoodVision 2030, National Marine Planning Framework, Programme of Measures for the Marine Strategy Framework Directive. It would be useful to also include text, in both documents, explaining these relationships. Furthermore, it is important that there is consistency and alignment between the goals and implementation of these plans and programmes.

Appendix A, List of Key Relevant Plans and Programmes lists the Shellfish Water Directive on Page 208. It should be noted that the Shellfish Directive was repealed in 2013. All responsibility for legislative protection of shellfish waters was subsumed into the Water Framework Directive. Consequently, the list of plans and programmes should be reviewed to ensure that reference is not being made to revoked legislation or previous versions of plans.

In addition, *Appendix A* lists the Climate Action and Low Carbon Development (Amendment) Bill, 2021 on page 215. This bill was enacted in July 2021 as part of the Climate Action and Low Carbon Development Act. The list of legislation in Appendix A should be given a thorough review to ensure no revoked or outdated legislation is included.

Mitigation Measures

We note Section 9.1 of the environmental report relating to Mitigation which proposes an extensive list of mitigation measures to avoid or minimise potential significant effects from the implementation of the Plan.

However, it is not clear how, or if, the measures recommended have been incorporated into the Plan. The mitigation measures recommended in the SEA ER should be included in the Plan, or an explanation as to why they have not been included should be provided. The Plan should include clear commitments to implement the mitigation measures proposed. Likewise, any recommendations from the Appropriate Assessment should be integrated into the final Plan. We also recommend including a section in the Plan showing how the findings of the environmental assessments have been integrated into the Plan. By integrating the recommendations from the respective environmental assessments, the Plan would be acknowledging the role and commitment of the aquaculture sector to manage and coordinate itself in an environmentally sustainable manner.

Monitoring

The Monitoring Programme should be flexible to take account of specific environmental issues and unforeseen adverse impacts should they arise. It should consider and deal with the possibility of cumulative effects. Monitoring of both positive and negative effects should also be considered. The monitoring programme should set out the various data sources, monitoring frequencies and responsibilities.

If the monitoring identifies adverse impacts during the implementation of the Plan, BIM should ensure that suitable and effective remedial action is taken.

Article 10 of the SEA Directive states that the significant environmental effects of implementing a plan/programme shall be monitored in order, *inter alia*, to identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action. Table 9.3 of the SEA environmental report sets out the proposed SEA monitoring for any significant environmental effects of the implementation of the Plan. The Directive does not distinguish between monitoring for positive/negative effects.

In addition, the monitoring framework should consider including monitoring parameters relating to eutrophication, marine pollution, acidification and ocean warming in order to monitor Ireland's progress towards achieving SDG 14, as discussed earlier in this submission. The monitoring framework could also consider monitoring Ireland's commitments relating to the management and design of fishing gear in respect of the forthcoming Extended Producer Responsibility Scheme for fishing gear containing plastic. The impacts of the use of toxicants and anti-parasitics could also be included in the monitoring framework.

Guidance on SEA-related monitoring is available on the EPA website at <https://www.epa.ie/publications/research/environmental-technologies/research-306-guidance.php>

State of the Environment Report – Ireland's Environment 2020

In finalising the Plan and integrating the findings of the SEA into the Plan, the recommendations, key issues and challenges described in our State of the Environment Report [Ireland's Environment – An Integrated Assessment 2020](#) (EPA, 2020) should be considered, as relevant and appropriate.

Future Amendments to the Plan

You should screen any future amendments to the Plan for likely significant effects, using the same method of assessment applied in the “environmental assessment” of the Plan.

In addition to any future amendments, the requirements for SEA and AA should also be considered in future reviews of the Plan.

SEA Statement – “Information on the Decision”

Once the Plan is adopted, you should prepare an SEA Statement that summarises:

- How environmental considerations have been integrated into the Plan;
- How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan;
- The reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and,
- The measures decided upon to monitor the significant environmental effects of implementation of the Plan.

You should send a copy of the SEA Statement with the above information to any environmental authority consulted during the SEA process. Guidance on preparing SEA Statements is available

on the EPA website at the following link: <https://www.epa.ie/publications/research/environmental-technologies/research-306-guidance.php>

Environmental Authorities

Under the SEA Regulations, you should consult with:

- Environmental Protection Agency;
- Minister for Housing, Local Government and Heritage;
- Minister for Environment, Climate and Communications; and,
- Minister for Agriculture, Food and the Marine.

Appendix II: Comments on the draft National Strategic Plan for Sustainable Aquaculture 2030

General comments

The Plan provides a good vision for how the industry should be developed sustainably from an environmental and economic perspective. However, the Plan lacks clarity or detail on how BIM intend to achieve the vision. The Plan would benefit from further information in terms of how it will be implemented, what financial supports will be available, how these relate to the supports from the Seafood Development Plan. The Plan would also benefit further expansion on the monitoring framework and enforcement supports. The Plan should also clarify the detailed links between the National Strategic Plan for Sustainable Aquaculture and the Water Framework and Marine Strategy Framework Directives.

Integration of the SEA and Appropriate Assessment Mitigation Measures

The Plan should include clear commitments to implement the recommendations and mitigation measures identified in the SEA Environmental Report. The integration of the SEA Environmental Report and the Plan will allow for cross-checking thereby reinforcing and maximising the potential for positive environmental outcomes.

A high level of integration between the Plan and the SEA environmental report will contribute towards robust governance to protect marine ecosystems and the services they provide to our society.

In order to ensure the effectiveness of the environmental assessment, the integration of the SEA should be completed prior to publishing the final Plan.

Monitoring and Implementation

We welcome the inclusion of Chapter 8 *Implementation and Monitoring* in the Plan which outlines the timeframes, lead agencies responsible and also includes an outline of the reporting milestones for each action set out in the Plan. The annual, biannual and mid-term review reports should include evaluations of the delivery of the actions. In particular, the Mid-Term Review Report in 2026 should reflect relevant external changes, including environmental considerations.

We recommend aligning the monitoring/reporting of the Plan implementation with the environmental monitoring required under the SEA legislation. This would enable the environmental performance of the Plan to be evaluated and provide for increased transparency during implementation. There may be merits in aligning the periodic reviews of the Plan with existing cyclical reporting e.g. State of Environment reports, annual water quality reports, etc.

Antiparasitic Resistance

The Plan should link into the work being carried out by the Department of Agriculture, Food and the Marine on antiparasitic resistance and associated substances ([gov.ie](http://www.gov.ie) - [Antiparasitic Resistance](http://www.gov.ie) www.gov.ie). BIM should consider the use of antiparasitic substances in the aquaculture sector and also their fate in the environment, as part of the Plan. This could be covered under Section 5.2 Animal Welfare of the Plan.

Protecting Water Quality

Section 5.1 of the Plan relates to Environmental Performance with the key actions associated with it listed in Table 12 – *List of Actions – Environmental Performance*. This list of actions should be expanded to include an action related to Protecting Water Quality to Protect Aquaculture. The Programme of Measures for the Marine Strategy Framework Directive, specifically those measures covering Descriptor 8 Contaminants, should also be considered for inclusion in relation to environmental performance.

Section 5 of the Plan could also consider sources of chemicals in the aquatic environment and emerging chemical issues might also be an area for consideration under Section 5 of the Plan. The Persistent Organic Pollutants Regulation, National POPs Implementation Plan and Mercury Regulation are all relevant in this respect. The SEA ER refers to persistent organic chemicals in the context of water.

A further area for consideration in the Plan in relation to protection of water quality might be the chemicals monitoring carried out under the Water Framework Directive, for example for any persistent organic pollutants, compounds of emerging concern, etc. The Water Framework Directive chemicals monitoring programme could also be linked into Section 5.1 – Environmental Performance.

Food Waste Prevention

Government Policy supports the UN Sustainable Development Goals and EU ambition to reduce food waste by 50% by 2030, e.g. Climate Action Plan, Waste Action Plan for a Circular Economy, Food Vision 2030. The Government is preparing a National Food Waste Prevention Roadmap that will set out an overarching strategy and priority actions for the delivery of Ireland's target of halving food waste by 2030.

Reducing food waste is an effective climate action. Food waste is a significant contributor to climate change; it is estimated that food waste generates about 8% to 10% of global greenhouse gas emissions.

Reducing waste also has potential for cost savings. Many businesses underestimate how much food waste is costing them (international studies estimate that it could be as high as 4% of turnover), reducing food waste therefore has potential to improve businesses turnover.

Through the Circular Economy Programme, the EPA-led food waste prevention programme drives awareness and action on food waste prevention, and develops supports to lead to measured reduction in food waste in households and businesses. A priority action for the programme is to establish a robust data set for food waste quantities across the supply chain, i.e. processing and manufacturing, retail and distribution. This will provide a solid baseline from which awareness and interventions can be designed and measured. In addition, the EPA has developed a national food waste measurement protocol to support a consistent approach to measurement in food sector businesses and resources and guidance are being developed to support capacity building in the sector for food waste reduction (see below for more information). To showcase approaches and share insights on food waste reduction, the EPA is also gathering good practice examples that are published on <http://foodwastecharter.ie> website.

The Plan should include a commitment to reduce food waste in line with EU and national policies.

Innovation & Demonstration

Ireland's Circular Economy Programme (2021-2027) is the driving force for Ireland's move to a circular economy. The vision for the Programme, which is led by the EPA, is an Ireland where the circular economy ensures that everyone uses less resources and prevents waste to achieve sustainable economic growth. One of the ways that the Circular Economy Programme works is providing innovation funding supports to organisations to drive circular economy activity in Ireland. Green Enterprise² is the programme's annual innovation funding call that supports organisations to pilot/trial circular economy related business models or processes. The thematic areas for the Green Enterprise call are linked to the Circular Economy Programme priority areas³ and organisations are funded up to €100k for short-term (18-24 month) projects. The following are examples of projects that have been (or are currently being) funded through Green Enterprise and may be of relevance to informing the final Plan.

- [Irish Fish Cannery project](#) (completed) used Design of Experiments to structure their approach to production improvements at the facility. The project achieved a 26% reduction in waste per tonne of product produced. Energy was also saved due to the changes made, with a 26% reduction in heating oil and 28% in energy use per tonne of product, due to optimising cook times and reducing reworks.
- The NetMap project (completed) provided a resource of mapping the management of waste fishing nets and rope (FNRs) in Ireland. The project demonstrated the potential for using this waste as a resource which could have societal, environmental and economic benefits. The project demonstrated reusing wasted fishing nets in concrete as a material for the construction industry.
- The Sea Synergy project (ongoing) is working on the full aspect of the fishing net reuse process, from collection and cleaning to reprocessing and new product creation.

The Plan should include a section on innovation to promote circular economy in the Irish seafood industry.

End-of-life fishing gear and Aquaculture Equipment

The plan should take into account and reflect new and emerging requirements in relation to the design of fishing and aquaculture equipment and the management of end-of-life gear.

In terms of management of end-of-life gear, the Single Use Plastics Directive requires Member States to monitor fishing gear placed on the market in the Member States and waste fishing gear collected, and to report annually to the Commission. Member States will need to establish national minimum annual collection targets for waste fishing gear containing plastic for recycling. An Extended Producer Responsibility Scheme for producers of fishing gear containing plastic must be established by 31st December 2024.

² [Green Enterprise | Environmental Protection Agency \(epa.ie\)](#)

³ Food, Water & Nutrients, Packaging, Plastics, Textiles, Construction & Buildings, Batteries & Vehicles, Electronics & ICT.

In terms of product design, the Single Use Plastics Directive commits to developing a harmonised standard for the circular design of fishing gear to encourage preparing for re-use and facilitate recyclability at end of life.

There are also national commitments to significantly increasing the circularity of the Irish economy in Ireland's Whole of Government Circular Economy Strategy 2022-2023.

The plan should align with and identify opportunities to support and advance these commitments in the various legislation and national policies.

Training, industry collaboration and collaboration with public bodies

The Plan makes reference to facilitating training and human capacity building. In addition to developing supports and resources, the EPA also works with stakeholders and recognised training bodies such as Solar (whose Skills to Advance Green Skills programme is delivered through the Education Training Boards) and Skillnet Ireland, to ensure good practice food waste quantification and prevention is included in training for industry personnel. The Plan could promote linkages between the aquaculture industry and these education and training bodies.