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Submitted to Proposals for a risk-based framework for managing interaction between sea lice from marine finfish farm developments and wild Atlantic salmon in Scotland
Submitted on 2022-03-13 12:34:32

Introduction

Your details

1 What is your name?

Name:
Lucy Kay

2 What is your email address?

Email:
email@arrancoast.com

3 What is your organisation? (if applicable)

Organisation:
Community of Arran Seabed Trust (COAST)

Wild salmon protection zones

4 Do you think that there are important areas for wild salmon post-smolt migration that we have not identified as wild salmon protection zones?

Yes

5 If yes, please identify these areas, explaining why they should be protection zones and the evidence to support this.

text box for information:

The hard, cut-off straight lines that are a result of the approach taken to determine protection zone boundaries do not make sense ecologically in terms of identifying areas of risk for migrating salmon. Also, the approach taken does not account for areas where sea lice from multiple farms will accumulate and pose a significant risk for migrating salmon smolts. The Clyde region is an example of this. Here the approach taken implies that there is no risk seaward of the identified red zones. In practice this would not be the case. Sea lice are just as likely to accumulate on the seaward side of the red zones and salmon smolts migrating through these areas will be exposed to these raised levels of sea lice.

The proposed salmon protection zones need to be revised to address the fact that raised levels of sea lice will occur over much larger areas than those identified. Viable sea lice can be transported over 30km and their dispersion and accumulation will be determined by prevailing hydrodynamics of an area. Also, it is not guaranteed that migrating smolts will necessarily choose the shortest route. These considerations need to be applied to the determination of protection zones. Failure to do so means that the salmon protection zones will fail to adequately cover areas of critical importance to migrating salmon smolts.

In the Clyde area there is already evidence from hydrodynamic and sea lice dispersion modelling that demonstrates the cumulative effect of sea lice from the existing multiple farms within the Clyde region, with accumulations within areas that are not covered by the proposed salmon protection zones.

As the consultation document identifies, there is already evidence of substantial impacts on marine survival of wild Atlantic salmon resulting from sea lice from finfish farms that has been demonstrated in Ireland and Norway. It is reasonable to consider that such impacts have occurred / are occurring in Scotland. Scotland's wild salmon populations are in a desperate state requiring that proposed protection measures are as robust as they possibly can be.

We consider that the proposed framework including identification of protection zones should be applied to sea trout as well. The assertion in the consultation document that sea trout catches appear to have stabilised is not supported by available data.

The framework including identification of protection zones must be applied to existing farms at the same time. The North Atlantic Salmon Conservation Organisation (NASCO) 2009 guidance on best management practices to address the impacts of sea lice and escaped farmed salmon on wild stocks is for 100% of farms to have effective management so that there is no increase in sea lice loads or lice induced mortality of wild salmonids attributable to farms.

6 Do you think that any of areas we are proposing as wild salmon protection zones should not be so identified?

No

7 If yes, please identify these areas, explaining why they are not important for wild salmon post-smolt migration and the evidence to support this.

text box for information:

Proposed sea lice exposure threshold

8 Do you have any scientific evidence that should be considered to ensure the sea lice exposure threshold is effective in protecting wild salmon populations?This includes any evidence for a refinement of the threshold

If so please provide that evidence below:

Our understanding is that the evidence from Norway currently provides the best available information and should therefore be applied at this time but should be subject to prompt revision as further relevant evidence becomes available.

The period of time over which sea lice thresholds apply must be broadened. Smolt migration can vary with influence from things such as weather patterns and temperature and the threshold period needs to reflect this. Also, if raised sea lice levels on a farm are detected, there is a time lag in implementing management action to address this, and in this action being effective in reducing the lice burden on farmed fish.

A threshold period limited to April/May is not sufficient. The industry's Code of Practice regarding reduced lice threshold levels applies to the period February – June and it is this sort of broader period of time that needs to be applied within the framework.

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Implementation

9 Which groups and organisations do you think we should include on technical advisory groups to assist us with the development of the detailed working arrangements and methods needed to implement the framework?

text box for information:

Community representation (for example through Coastal Communities Network (CCN) Scotland and specific community-based organisations), environmental organisations, bodies such as Salmon and Trout Conservation Scotland and fisheries representatives such as from District Salmon Fisheries Boards should be involved alongside regulatory organisations and industry representatives. Many others outside of the regulatory bodies and industry have technical expertise to input to this work.

Modelling protocols

10 Do you have relevant expertise or experience that you would be happy to share with us during implementation planning to help us develop modelling protocols?

Possibly

11 If yes, please tell us about your area of expertise:

text box for information:

COAST has a range of experience with open cage salmon farming, and regulatory and technical matters relating to this. This includes working with other coastal community groups and others on modelling work and other research within the Clyde region.

We are concerned that the consultation document appears to imply that applicants construct the requisite models and undertake the modelling. There appears to be no requirement for independent verification or validation of this. This is not acceptable and provides no oversight of the data collection and modelling.

It also appears that the modelling is only required to be applied at an individual farm level, when the very basis for the consultation clearly requires that modelling for an application must also encompass modelling of cumulative impacts with outputs from other farms within a water body/region where these will overlap to any degree.

There needs to be transparency and independence in the data collection and modelling for fish farms and new applications. Currently this isn't the case and wouldn't be under the proposals as set out in the consultation document.

12 If you would like to be involved, are you happy for us to contact you by the email address you have provided?

Yes

Permitting and site regulation

13 Do you have any suggestions for how SEPA could most efficiently and effectively assess compliance?

Please outline these::

Currently there is a lack of transparency and accessibility to real time monitoring data and management actions, including treatments and chemical use for open cage fish farms in Scotland. Information and data need to be made publicly available and readily accessible in a much more timely manner than is currently the case, on a weekly basis at minimum.

There must also be regular independent verification of monitoring and management as an integral part of any framework. It is reasonable that the costs of this could be funded from a levy on the industry as part of a licence.

Monitoring the effectiveness

14 Do you have any suggestions on how we should develop a monitoring plan to assess the effectiveness of the framework and what it should include?

Yes

If yes, please outline these suggestions?:

Whilst not specifically part of this consultation, there is a requirement both within the screening process for applications and more generally in relation to monitoring requirements for open cage fish farms to address the impacts of fish farm waste and pollutants on the marine environment and human health more broadly. Current data collection and monitoring requirements are very narrowly focussed and are not required to monitor further afield effects which available evidence indicates are likely to be occurring, e.g. impact of Emamectin benzoate on crustaceans outside the allowable zone of influence.

A robust approach to monitoring the effectiveness of the framework is essential to provide assurance about the approach. It is also essential that where monitoring indicates issues with the effectiveness of the framework that these are addressed promptly and any changes required are implemented and not delayed.

The monitoring approach must include compliance monitoring by SEPA and greater frequency of unannounced monitoring visits.

An agreed approach for effectiveness monitoring must be developed prior to implementation of any new framework. There should be an opportunity for the public to comment on the proposed effectiveness monitoring approach ahead of it being finalised.

15 Do you think there are components that should be included in an effectiveness monitoring programme that you would be able to help deliver?

Not sure

If yes, please outline what these components are?:

16 If you would like to be involved in the development of a monitoring plan, are you happy for us to contact you by the email address you have provided?

Yes

Adaptive approach

17 Are there other types of information that you think could usefully inform the adaptive development of the proposed framework?

Yes

If yes, please outline how this information could be used.:

There needs to be application of the precautionary principle to any adaptive approach. Scotland is party to treaties and laws which make the use of the precautionary principle obligatory. Relying on adaptive management is not precautionary.

While it is reasonable to consider that the approach to regulation and management should be adaptable over time, reliance on an adaptive approach risks failing to actually address the specific issues and problems, as is currently the situation overall with the regulation of open cage salmon farming in Scotland.

Decisions based, for example, on innovative technology or novel management approaches need to demonstrate that the measures have proven to be effective before being accepted as a means to reduce sea lice abundance emanating from fish farms.

The inquiry by the Rural Economy and Connectivity (REC) committee of the Scottish Parliament into salmon farming in Scotland (2018) made a number of recommendations regarding the precautionary principle which are still relevant and need to be applied in relation to any new framework (e.g. RECC inquiry recommendations 40, 46 and 48).

The proposed framework's implications for you

18 Do you think the design of the proposed framework, or how it is implemented, could affect your community or business interests?

I'm not sure

Please outline what you think the effects could be and why?:

There are potential positive and negative effects from the proposed framework depending on how it is taken forward and what it contains.

Failure to establish an effective framework means further demise of populations of Scottish wild salmon and sea trout with negative impacts on the freshwater and marine environments and the ecology that is influenced by these species, and the individuals, communities, organisations and businesses that are connected with these.

A fundamental issue relates to the stated intention of the new framework to contribute to ensuring a sustainable future for Scotland's wild salmon populations and its aquaculture industry. Scottish Government, SEPA and other regulatory organisations need to clearly define what 'sustainable' means in terms of fish farming in Scotland, in line with Scottish Government's acceptance of the UN definition of sustainability as set out in overarching policy. Without this, and clear parameters defining sustainability for this industry, including transparent cost benefit analysis, any new framework is destined to fail to deliver what it says it is aiming to achieve.

19 Do you have suggestions how any potential negative effects could be reduced or avoided without compromising the environmental protection purpose of the proposed framework?

Yes

If yes, please outline your suggestions::

Please see other comments relating to measures needed to ensure a robust and effective framework, and re defining sustainability in relation to this industry.

20 Do you have any suggestions how potential positive effects delivered or enhanced without compromising the environmental protection purpose of the proposed framework?

Yes

If yes, please outline your suggestions:

Positive effects could be delivered by a commitment to a planned transition from open cage fish aquaculture to fully closed containment, preferably shore based, to remove all sea lice risk, remove discharge of waste and pollutants direct into the sea and remove the requirement for wild caught cleaner fish.

Overall framework proposal

21 Do you have any additional feedback on the proposed framework?

text box for information:

The stated purpose of the proposed framework is to help ensure Scotland's environment is protected and improving, and that this also contributes to achieving sustainable economic growth.

There are a number of issues here that the framework fails to properly acknowledge or address:

1. The dire state of Scotland's west coast wild salmon populations and populations of sea trout. This requires much more robust measures to address all the known impacts of open cage fin fish aquaculture on these species. It is no good tinkering around the edges and hoping that this will reverse the trend of declining populations. Urgent action is needed now, not in 12 months' time or longer.

2. Sustainability. The UN's definition of environmentally sustainable development (used in Scotland's National Marine Plan) is 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. There is a very significant issue with use of the word 'sustainability' in relation to open cage salmon farming in Scotland. The reality is that there is no such thing as environmentally sustainable open-net salmon farming. It is not coincidence that growth of open-cage salmon farming has coincided with the collapse of wild salmon runs in countries around the world. This, together with other issues outside the scope of this specific consultation, such as impacts on wild fish stocks for feed and cleaner fish, and dumping of waste and pollutants into the marine environment and implications of this on marine species, other businesses and human health, mean that open cage salmon farming in Scotland is very far away from meeting the definition of sustainability that has been accepted by the Scottish Government as part of its overarching marine policy framework. The lack of a proper cost benefit analysis of the salmon farming industry is indicative of this issue.

3. Impacts from existing farms: It makes no sense to focus the new framework on new and expanded farms and leave consideration of existing farms until later. Existing farms are already producing sea lice that are affecting wild salmon and sea trout; the framework should be applied to existing farms as a matter of priority. This should be prioritised over and above consenting of new farms and expansions to existing farms. Failure to do so means that the contribution of sea lice impacts of existing farms will continue to be ignored and undermine the stated purposes for the new framework. The REC committee salmon farming inquiry report (2018) recommended that "…. if the industry is to grow the "status quo" in terms of regulation and enforcement is not acceptable". And that "….urgent and meaningful action needs to be taken to address regulatory deficiencies as well as fish health and environmental issues before the industry can expand."

Prioritising applications for new farms and expansions of existing farms under the framework, ahead of addressing issues associated with existing farms

currently in place, blatantly ignores this recommendation. Regulatory deficiencies, fish health and environmental issues have not been addressed and the basis for the REC committee recommendation still applies.

4. Postponing inclusion of sea trout within the framework until a later date. There is no valid justification for doing this. Sea trout are a priority marine species for which Scotland has commitments to protect. The framework needs to apply equally to both wild sea trout and salmon from the outset.