



# **RIVER DOON DISTRICT** **SALMON FISHERY BOARD**

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## **Response by River Doon District Salmon Fishery Board on 14 March 2022 to SEPA Consultation: Proposals for a risk-based framework for managing interaction between sea lice from marine finfish farm developments and wild Atlantic salmon in Scotland**

On behalf of the River Doon District Salmon Fishery Board, we would respond as follows on the SEPA consultation on the development of a risk-based framework for managing sea lice from marine finfish farms developments and wild Atlantic salmon in Scotland.

We wish to acknowledge the support of Fisheries Management Scotland (“FMS”), of which the River Doon DSFB is a member, in the preparation of their Response to the Consultation, from which we would emphasise a few key points from the perspective of our Board:

Like FMS, we welcome the underlying principle of managing the overall number of infective-stage sea lice in the marine environment at a level below which sea lice would be expected to result in significant impacts on wild salmon, as we believe that this principle is the correct approach to managing interactions related to sea lice, however, we also highlight a number of concerns below in relation to the scope and detail of the proposed framework.

Section 2.5 states that the proposed regulatory framework will deliver on the Scottish Government’s response to the Salmon Interactions Working Group Recommendations. We hope that this will be the case once the full framework is delivered, but in terms of the proposals set out in the consultation, we do not consider this to be accurate for the following reasons:

- The SIWG recommendations were clear that they relate to all wild salmonids (i.e. Atlantic salmon and sea trout);
- The Salmon Interactions Working Group (“SIWG”) Report of May 2020 made recommendations that apply to all farms (i.e. new and existing);
- the Scottish Government response made reference to our international obligations under the North Atlantic Salmon Conservation Organization (NASCO), which includes the Objective of “100% of farms to have effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms”.

We do not feel that the consultation with SEPA provided sufficient clarity on SEPA’s approach to delivering the framework. In particular, we are strongly of the view that SEPA has taken a wrong approach in failing to consider the management of sea lice from existing farms within the framework. We would therefore call upon SEPA to provide further clarity on how the regulatory framework will work in practice to ensure that sea lice levels remain below the exposure threshold; and to meet the SIWG recommendations and international obligations under NASCO.

We believe that the principle behind the framework should be to *prevent* impacts from sea lice in the first place’ but where impacts are detected, it is vital that there is effective enforcement and further explanation from SEPA on how the framework will implement adaptive management, and over what period.

We agree with FMS that the regulatory framework is intended to “*form part of a single, enhanced, and comprehensive risk assessment framework*” to cover all pressures from marine finfish farms (5.3) and to deliver on the Scottish Government’s response to the SIWG to deliver

We defer to FMS on the technical submissions they have made in respect of Section 5, Sections 6.1 and 6.2 of the Consultation, but particularly emphasise that conditions should be not only to prevent sea lice from significantly increasing, rather the conditions should be constructed with the purpose of keeping sea lice below the exposure threshold, in order to protect wild salmonids. That must also take account of existing farms, not just new farms.

We agree with the observation by FMS that, to allow appropriate regulation of 6.2 (b), and in line with the SIWG recommendations for a regulatory system which is “*robust, transparent, enforceable and enforced*” (as accepted by the Scottish Government), it is crucial that both farmed fish numbers and on-farm sea lice levels are published in real time.

Where Section 6.3 states that more information is required to enable an accurate assessment of whether existing finfish farm operations are causing a hazard to wild salmonid populations, it is essential that a precautionary approach is adopted by SEPA.

Again, Section B1 is framed on an erroneous assumption that the focus should be on “...*the increase in exposure of wild salmon post-smolts to numbers of infective-stage sea lice likely to put a significant proportion of the post-smolts at risk*”. In order to meet the NASCO objective of “*100% of farms to have effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms*”, SEPA are called upon to widen the scope of the regulatory framework to existing farms.

As regards the proposed application of this framework to only during April and May this is insufficient to protect migrating post smolts. Following the preventive principle, the framework should be to prevent impacts on wild fish. Key points to note are:

1. From the consultation sessions with SEPA, we understand there is an intention to consider lice levels in March ahead of the April and May window, however, we still believe that is insufficient.
2. We note the industry’s own ‘Code of Good Practice’ defines the sensitive period for wild fish as 01<sup>st</sup> February to 30<sup>th</sup> June inclusive, but again that is insufficient.
3. Some Environmental Management Plans already in place do not define a ‘sensitive period’ and include a single sea lice threshold which applies year-round.
4. Recent and predicted warm, dry springs mean that smolts are delayed in their migration to sea. For example, Ayrshire Rivers Trust (“ART”) in 2021 recorded that salmon smolts were still present in the middle reaches of the River Ayr on 16 June 2021, and would therefore be expected to be travelling up the West Coast until at least late June.
5. We also understand the University of Glasgow has carried out research which suggests that smolts leaving catchments where they must navigate large lochs, such as Loch Lomond, can be significantly delayed in their migration.
6. In addition, the marine phase of sea trout is designated as a Priority Marine Feature, in recognition of the conservation importance of sea trout in their own right. We consider that sea trout must be protected alongside Atlantic salmon. To fail to do so, is not in accordance with the SIWG recommendations, or the Scottish Government response. We do not agree that the transitional arrangements for sea trout should rely on the *status quo* as currently undertaken by local authorities.
7. We therefore agree with the reasoning from FMS that a year-round protection threshold should apply.
8. At the very least, the sensitive period should encompass February to June in line with the industry’s Code of Good Practice, and we seek assurance that any proposed timescale provides sufficient time for smolts to migrate from sea lice protection zones in the south of the country (including Ayrshire, and specifically the River Doon), through to zones further north, as they migrate to the high seas).

We echo the concerns of FMS regarding the timescales and that there remains no meaningful protection from sea lice infestation for wild salmonids. The existing planning application system is not fit for purpose in this regard; and so we are disappointed to note that it is SEPA's intention to take a further 12 months to implement these proposals. We urge SEPA to move this process forward with urgency.

Should SEPA issue any CAR licences before the risk assessment framework is in place, we would expect SEPA to be clear that these licenses will be amended to reflect the new regime as soon as the framework is finalised. We are particularly concerned that new fish farms may be contemplated for the Firth of Clyde, near to the Ayrshire rivers; and that there is a danger that, if consented prior to the new framework coming into force.

We submit that specific conditions in any CAR licences issued should be used to create a fit-for-purpose, enforceable system for management of sea lice.

We agree with the submission by FMS that a central pillar of the regulatory framework must be the inclusion of farm-specific sea lice thresholds (with the intention of ensuring that the exposure threshold in the relevant water body is not exceeded) with enforcement action for breaches of these thresholds. We are strongly opposed to a threshold for treatment, or management action, but rather an absolute threshold which should not be exceeded.

We recognise and encourage SEPA to use their existing powers for fixed and variable monetary penalties, enforcement undertakings and have the ability to review (including reductions in maximum consented biomass where appropriate) and revocation of licenses. We call upon SEPA to clearly set out a regulatory framework which meets the tests of being robust, transparent, enforceable and enforced.

Unless the framework is seen by all concerned as meeting those tests, there will be poor acceptance by the general public. We note and agree with FMS that monitoring the distribution and densities of infective-stage sea lice in the environment, and infestation pressure on wild fish where possible, will be crucial. Existing monitoring undertaken by Fisheries Trusts does not currently include all relevant areas (for example, as highlighted by ART in their Response submission, the Ayrshire rivers have not previously been part of such monitoring, but they have the skills to assist in such monitoring, if funding were to be made available).

Essential to the regulatory framework is frequent, unannounced audit inspections, to ensure transparency in the process.

As for the proposed protection zones, whilst we recognise that the classification of river mouths, sea lochs and sounds as wild salmon protection zones is a useful starting place, we are concerned about gaps, particularly to cover the remainder of the Firth of Clyde, rather than simply near the river mouths of the Ayrshire rivers, standing the expected emigration routes.

We defer to the technical expertise of FMS and others regarding the passage of time for smolts, but rely on the data coming from the West Coast Tracking Project, which highlights the variations within different areas.

SEPA's approach must be in line with Scottish Government policy, which is not only to conserve, but also restore biodiversity, so the focus should not only be on protecting wild Atlantic salmon, but also sea trout (i.e. all wild salmonids) in all rivers and bodies of water, not just those on Marine Scotland's 2021 list of graded rivers.

We also believe that the modelling produced requires to be consistently applied by all developers, but SEPA should be setting farm-specific thresholds, taking account of the geography and any existing farms.

We also adopt the technical submissions made regarding the importance that weekly sea lice counts must count all female lice, not just gravid female lice. We also believe that it is crucial that the data is published in real time in order that all stakeholders fully understand, and engage with, the process. The current timescale for aquaculture data publication within Scotland's Aquaculture website and Scotland's Environment Web does not provide sufficient transparency.

We refer also to our online submissions made through the citizenspace portal under response ID [REDACTED], noted below for ease of reference.

Consultation Questions	Answers
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?	<p>Yes</p> <p>No</p> <p>Not sure</p>
5. If yes, please identify these areas, explaining why they should be protection zones and the evidence to support this.	<p>We understand that smolts emigrating from Ayrshire rivers have never been subject to research. Consequently, the direction these young salmon take and the rate at which they leave the proposed protected zones is unknown. Assumptions have been made that all smolts leave and will swim at the same rate as they head for open seas. The progression speeds of wild salmon post-smolts through the zones cannot safely be assumed at the rates indicated.</p> <p>Research elsewhere indicates a high degree of variability in the rate at which smolts progress to open seas. We reference and adopt the Response to the Consultation by Fisheries Management Scotland</p> <p>Consequently, we submit that it is necessary, adopting the precautionary principle, to extend the protection zones further into the Firth of Clyde, beyond the mouths of the Ayrshire rivers, until more data is available.</p>
6. Do you think that any of areas we are proposing as wild salmon protection zones should not be so identified?	<p>Yes</p> <p>No</p> <p>Not sure</p>
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.	

<p><i>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</i></p>	<p>We refer to the submission made by Ayrshire Rivers Trust (“ART”), who are the Scientific Advisers to the River Doon DSFB.</p> <p>Not all rivers in Ayrshire have been subjected to smolt migration/emigration research. Therefore, we understand that there is limited data available. However, adopting the precautionary principle, it is a reasonable assumption to make that what happens in one Ayrshire river may happen in all.</p> <p>We understand that, in 2021, ART captured salmon smolts as late as 16 June 2021, in the middle reaches of the River Ayr some 32km upstream of the estuary. We understand this emigration may likely have been delayed due to low water conditions experienced last summer.</p> <p>Whilst one may say that last year’s low water conditions were perhaps some of the worst in recent times, due to climate change, we are experiencing increasingly dry springs on the west coast/Ayrshire rivers.</p> <p>In the circumstances, with this clear evidence, whilst we support the submissions made by Fisheries Management Scotland (and adopt the reasoning in their submission) for year round thresholds to be applied, we strongly propose that the proposed sea lice threshold period covering April and May is inadequate.</p> <p>We note that the aquaculture industry’s own ‘Code of Good Practice’ defines the sensitive period for wild salmon as the 1st February to 30th June inclusive. We also believe this is inadequate, as there is demonstrable evidence from ART that smolts continue to emigrate from the Ayrshire coastline throughout June.</p> <p>We agree with ART’s submission that, by extending the sensitive period to year-round, this would allow SEPA to set appropriate lice exposure levels/lice thresholds and better enable the industry to achieve compliance year-round.</p> <p>It would also allow post smolts from the southern west coast rivers (which include the River Doon) to migrate beyond northern protection zones safely.</p> <p>There seems little point in setting thresholds that apply only at peak smolt emigration times, when control measures to keep lice levels may be required in the period running up to and beyond the peak period. The principle of this proposition appeared to be accepted by SEPA in the discussions sessions organised by FMS, but we are</p>
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	<p>responding to what is noted in the Consultation document, which provisions are inadequate to protect all wild salmonids i.e. salmon and sea trout.</p> <p>This is especially important, as SEPA appears to have taken a decision to exclude sea trout from these protections, which is contrary to the prevention principle and the UK's commitment to meet the North Atlantic Salmon Conservation Organization (NASCO) goal, namely "100% of farms to have effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms..."</p>
<p><i>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?</i></p>	<p>Fisheries Management Scotland and their members, including the District Salmon Fishery Boards, Trusts and others, such as the River Doon District Salmon Fishery Board. Ayrshire Rivers Trust (scientific advisers for a number of the DSFBs on the Ayrshire rivers). The Missing Salmon Alliance. Coastal Communities Network Scotland and their Members. Salmon &amp; Trout Conservation Scotland. Other organisations representing members of the public and their rural communities affected by the impact of aquaculture e.g. angling clubs and organisations etc.</p> <p>We also recognise that representatives of the aquaculture industry should be invited to participate, but it is important that they are not seen to dominate any technical advisory groups, as they clearly have a vested interest in the detailed working arrangements and methods to be adopted to implement the framework.</p> <p>So, for example, we consider it is critical that the regulatory framework has to include frequent unannounced visits/inspections to fish farms, so that robust monitoring can be enforced.</p>

<p>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?</p>	<p>Yes</p> <p>No</p> <p>Possibly</p>
<p>11. If yes, please tell us about your area of expertise:</p>	<p>Ayrshire Rivers Trust (“ART”), scientific advisers to the River Doon DSFB and a number of other DSFBs for the Ayrshire rivers, has expertise monitoring wild salmonids and extensive experience of netting fish. With their local knowledge of the Ayrshire Coastline, they may be able to contribute to gathering data and monitoring lice on wild salmonids.</p> <p>As a Board, we would support the gathering of relevant data and the monitoring of sea lice on wild salmonids in the Ayrshire rivers, particularly the River Doon.</p> <p>We consider this would be extremely helpful in determining the extent of protection zones to be implemented, in order to protect wild salmonids.</p>
<p>12. If you would like to be involved, are you happy for us to contact you by the email address you have provided?</p>	<p>Yes</p> <p>No</p>
<p>13. Do you have any suggestions for how SEPA could most efficiently and effectively assess compliance?</p>	<p>Like the submission from our scientific advisers, Ayrshire Rivers Trust (“ART”), we are unclear from the consultation how SEPA intends to deliver this proposed framework and assess compliance.</p> <p>We strongly submit that reliance on the aquaculture industry to self-regulate would be entirely inappropriate. SEPA must ensure they are able to regulate effectively and take enforcement action at every failure.</p> <p>This should include unannounced visits and inspections by trained SEPA staff. Non-compliance is unacceptable and enforcement action taken in a consistent and transparent manner, without exceptions, by SEPA is critical to protect wild salmonids.</p> <p>We agree with the submissions made by Salmon &amp; Trout Conservation Scotland that, if there are concerns regarding resourcing of such unannounced visits (critical to ensure</p>

	<p>compliance by the industry), then the industry should bear any such additional costs.</p> <p>If individual farms are found to be in breach of the regulatory regime, then SEPA should use its powers to the fullest - not just to bring the relevant farm into compliance as soon as possible (as the damage may already have been done), but to penalise their non-compliance, if necessary, by withdrawal of their CARs or Licences.</p> <p>We adopt the technical submissions made by ART and Fisheries Management Scotland regarding the importance of all female adult lice being used to determine thresholds, but this must also be supported by unannounced visits and inspections, with absolute thresholds being regulated proactively by SEPA. Again, this must be based on the preventative principle and in accordance with SEPA's regulatory responsibilities across their range of operation.</p>
<p><i>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? If yes, please outline these suggestions?</i></p>	<p><b>Yes</b></p> <p>No</p> <p>Not sure</p> <p>SEPA should consider using local expertise, independent of the aquaculture sector, to assist with monitoring and data collection. We refer to the technical submissions made by Fisheries Management Scotland and others who have technical expertise in this area.</p> <p>We also adopt the submissions of Ayrshire Rivers Trust that establishing base line data may still be possible within the Firth of Clyde prior to the planned expansion of the aquaculture industry within this area. This provides is an opportunity that has long been ignored by those coordinating sea lice monitoring further north on the west coast.</p> <p>We consider adopting such measures and being transparent in the sharing of data is essential to effectiveness monitoring of the framework; with proactive action being required by SEPA, where non-compliance is encountered.</p>
<p><i>15. Do you think there are components that should be included in an effectiveness monitoring programme that you would be able to help deliver? If yes, please outline what these components are?</i></p>	<p><b>Yes</b></p> <p>No</p> <p>Not sure</p>



	<p>We adopt the submissions made by Ayrshire Rivers Trust (“ART”), who are the scientific advisers to the River Doon DSFB.</p> <p>We understand the Ayrshire coastline has to date, never been included in any sea lice monitoring on sea trout, despite aquaculture facilities operating in relatively close proximity. With the planned expansion of aquaculture in the Firth of Clyde and North Ayrshire, this situation should be addressed and the entire Ayrshire coastline included within any wider monitoring strategies for all wild salmonids.</p> <p>While monitoring sea trout will not provide the same results as monitoring salmon within the marine environment, it may be possible to gather valuable data on lice levels occurring on wild salmonids. These data could be used to assess changes occurring and understand direct relationships between sea lice levels recorded on nearby aquaculture sites and those occurring on wild salmonids within the Firth of Clyde.</p> <p>The framework should be extended to include sea trout as soon as possible. Indeed, we would go far as to adopt the submission of Fisheries Management Scotland, that it is critical that sea trout are included in the monitoring of sea lice from the outset, rather than being effectively ‘left behind’ as SEPA proposes to develop the framework for Atlantic salmon only at this time.</p> <p>Ayrshire Rivers Trust ("ART") have experience of netting procedures and knowledge of the coastline where netting operations may be possible. This is something that ART may be able to assist with and are keen to do so, subject to available funding being identified and made available.</p>
<p><i>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?</i></p>	<p>Yes</p> <p>No</p>
<p><i>17. Are there other types of information that you think could usefully inform the adaptive development of the proposed framework?</i></p> <p><i>If yes, please outline how this information could be used.</i></p>	<p>Yes</p> <p>No</p> <p>Not sure</p> <p>We agree with the submission by Ayrshire Rivers Trust (“ART”), scientific advisers to the River Doon DSFB, that a consistent approach to modelling sea lice dispersal should</p>

	<p>be adopted. We submit this should include adopting requirements that all adult female lice, rather than just gravid female lice, are used to inform the modelling.</p> <p>We also submit that the sea trout should be within the framework as soon as possible, preferably from the outset, as noted and recommended by Fisheries Management Scotland, as they require equal protection, as wild salmonids.</p> <p>As noted elsewhere, due to demonstrable changes in the behaviour of smolts, due to low water conditions caused by climate change, consideration of the impacts affecting different regions needs to be made in real time. Taking this into account when setting lice thresholds seems appropriate, as does extending the period of protection offered by increasing the lice threshold period year-round.</p> <p>We note that the industry and other stakeholders may already have well developed modelling approaches that could be integrated within the framework to allow faster implementation and protection of wild salmonids.</p> <p>However, (as the Fisheries Management Scotland submission concluded), it is the primary responsibility of SEPA (not the aquaculture industry itself) to develop a regulatory framework which "...must deliver on our International Commitments and meet the tests set out in the Salmon Interactions Working Group of being robust, transparent, enforceable and enforced."</p>
<p><i>18. Do you think the design of the proposed framework, or how it is implemented, could affect your community or business interests?</i></p> <p><i>Please outline what you think the effects could be and why?</i></p>	<p>Yes in a positive way</p> <p>Yes in a negative way</p> <p><b>I'm not sure</b></p> <p>No</p> <p>Whether the framework has positive or negative effects on business and community interests will depend on how able SEPA, when applying the framework, are at delivering effective regulation and the protection of wild salmonids.</p> <p>Once the aquaculture industry is regulated under the new framework, there is an expectation that wild salmonids (particularly wild Atlantic salmon) are protected.</p> <p>However, in order to make that a reality, SEPA must ensure that it is able to regulate consistently and in a transparent manner, if public confidence in this new approach is to be achieved.</p>

	<p>We submit that, as noted in the Fisheries Management Scotland submission, in order for the public to have acceptance (in fact, better still, confidence) in the framework, it requires the public to be confident that the regulatory framework will be implemented rigorously.</p> <p>By necessity, we submit that requires to include unannounced visits to fish farms; and proactive action by SEPA, if non-compliance with the regulations is encountered.</p> <p>Our Board considers that the stakes are high, as our priority to conserve species which are widely acknowledged are in crisis.</p> <p>If the necessary protections can be put in place to protect wild salmonids from lice associated impacts, this will benefit the angling sector and rural economies for years to come.</p>
<p><i>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?</i></p>	<p>Yes</p> <p>No</p> <p>Not sure</p> <p>If yes, please outline your suggestions:</p> <p>See above</p>
<p><i>20. Do you have any suggestions how potential positive effects delivered or enhanced without compromising the environmental protection purpose of the proposed framework?</i></p>	<p>Yes</p> <p>No</p> <p>Not sure</p> <p>If yes, please outline your suggestions:</p> <p>See above</p>
<p><i>21. Do you have any additional feedback on the proposed framework?</i></p>	<p>The manner in which the questions are framed can lead to somewhat disjointed responses. We trust that SEPA will take on board the relevant points we have raised in our answers, rather than ignoring them as a poor fit to the question in which they are included.</p> <p>We are also arranging to send a unified response to the <a href="mailto:aquaculture.regulation@sepa.org.uk">aquaculture.regulation@sepa.org.uk</a> inbox, which is based primarily on the Response prepared by Fisheries Management Scotland, which our Board supports, but with</p>

	particular comments as we consider are relevant to the interests of our stakeholders in the River Doon DSFB and to the Ayrshire rivers generally.
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Yours sincerely

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