

4<sup>th</sup> March 2022

## **Proposals for a risk-based framework for managing interactions between sea lice from marine finfish farm developments and wild Atlantic salmon in Scotland**

To Whom It May Concern:

Thank you for the opportunity to respond to SEPA's proposed risk-based framework for managing interactions between sea lice from marine finfish farm developments and wild Atlantic salmon in Scotland.

The Skye and Lochalsh Rivers Trust (SLRT) feels that although the proposed framework is prioritising the mitigation of elevated sea lice populations stemming from salmon aquaculture facilities, the framework will not provide an acceptable level of protection for wild salmonids from Scottish aquaculture in its current form.

SLRT would like to highlight the following key issues that we believe must be incorporated into the final framework:

### 1. Anadromous sea trout must be included in the framework

As it stands, the framework is aimed at protecting wild Atlantic salmon populations, while anadromous sea trout populations are disregarded. SLRT feels that this an oversight and sea trout must be included in the final framework. During a brief consultation with SEPA and members of Fisheries Management Scotland, it was suggested that sea trout were not included in the framework because of a lack of knowledge and data regarding their population levels and movements. However, SLRT feels that there are several resources regarding sea trout populations on the west coast, including datasets specifically dedicated to the impacts of aquaculture on sea lice burdens of sea trout. For example, multiple west coast Fisheries Trusts have 15+ years of sea lice monitoring data collected from wild sea trout surveys in areas where aquaculture is present. Additionally, Marine Scotland Science has reported sea trout catch statistics from rivers across the west coast since 1952 and these records are publicly available.

It is becoming increasingly clear through acoustic telemetry tracking projects conducted across the west coast of Scotland, that significant portions of sea trout populations are remaining in coastal areas and sea lochs instead of migrating out to deeper water as salmon do. Results demonstrating this migration strategy reported from a sea trout post smolt telemetry study conducted on the Isle of Skye are included as supplementary information to this letter. Sea trout that utilise this life history strategy are then faced with prolonged exposure to increased levels of sea lice stemming from salmon farms that are located in these same coastal habitats rather than salmon that migrate through the areas during the smolt run. This continuous exposure can lead to increased lice infection and ultimately increased mortality of sea trout. Therefore, it is

essential to include sea trout populations in the framework to prevent further declines in an already declining population.

2. The sensitive period must be extended (February- September) to maximise protection of the marine stages of both salmon and sea trout

The proposed framework has outlined the sensitive period of wild fish to extend from April to May, aimed at protecting the expected timings of the smolt run of wild salmon. However, SLRT feels that this period of time is too limited to provide protection to salmon smolts as they enter the marine environment. If salmon farms are reporting elevated sea lice levels in February-March, reactionary lice treatments occurring in April will not result in an immediate decline of sea lice levels in the surrounding water column where wild fish are exposed to the parasites. Therefore, to limit the cumulative build of lice populations in the area, preventative treatment measures should begin as early as February (acknowledged by the aquaculture industry as the beginning of the sensitive period) in order for sea lice levels to drop below the exposure threshold before the wild fish enter the marine environment.

Additionally, further research is required to collect data regarding the migration speeds and timings of salmon smolts. Although it is recognised that spring smolt runs primarily occur during the April-May period, this process is heavily influenced by climatic conditions and as climate change causes more erratic weather patterns, there is a possibility that the timing of smolt runs will also be altered. Widening the window of the sensitive period would provide protection for early/late running smolts.

Furthermore, sea trout (as discussed previously) are likely to remain in habitats where salmon farms are located, often for prolonged periods during the spring and summer months. Therefore, limiting the sensitive period to May provides no protection for vulnerable post smolts and adult sea trout that remain in coastal habitats until later in the year. SLRT would encourage SEPA to extend the sensitive period to February-September to maximise protection for salmon smolts, as well as returning adult salmon, and sea trout that remain in coastal areas that overlap with salmon farm sites.

3. The framework must assess and mitigate the threat of sea lice from existing salmon farms instead of focusing on the additional inputs from new approved farms

The current framework is unclear about how existing farms will be included and seems to focus on preventing lice loads from increasing from their current levels. West Coast Fisheries Trusts have collected data demonstrating that the current sea lice burdens found on wild sea trout in areas of aquaculture are already at elevated, and mortality inducing, levels. These high levels should indicate that the framework should not be viewing current lice levels as acceptable, but instead working to first decrease sea lice abundance at existing farm facilities before approving new aquaculture sites that will only contribute to already elevated sea lice abundance.

4. Any river with a freshwater pearl mussel population must be included in a protection zone

In Section A.5, the framework states that protection zones will include “rivers designated as SACs or SSSIs for Atlantic salmon or freshwater pearl mussels (excluding those where the

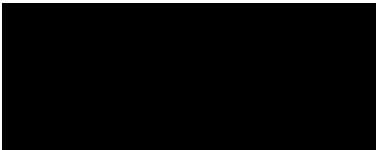


mussels are known not to be dependent on salmon)". SLRT feels that any river with a FWPM population, a critically endangered species, should be included in a protection zone, regardless of the type of salmonid species present. We would also argue that any river where FWPM are reliant on sea trout as their host species instead of salmon would be at potentially greater risk from the presence of aquaculture because of the overlap in coastal habitat use between sea trout and salmon farms as outlined previously.

In conclusion, SLRT feels that the current framework is a positive starting point to introducing successful regulation of aquaculture-influenced sea lice levels in Scotland, however, there are several major key points that are missing from the proposed scheme, and these must be addressed in order to effectively protect wild salmon and equally important wild sea trout populations.

We look forward to engaging further with SEPA as this framework is developed and implemented.

Kind regards,



Skye and Lochalsh Rivers Trust