**KAMES FISH FARMING LIMITED**
**CONSULTATION RESPONSE 14 SEPTEMBER 2023**

# MANAGING INTERACTIONS BETWEEN SEA LICE FROM FINFISH FARMS AND WILD SALMONIDS – PROPOSED NEW REGULATORY FRAMEWORK

Kames Fish Farming Limited have been operating since 1972, currently producing high quality trout on the west coast of Scotland. Operating from its main headquarters near Kilmelford for over fifty years, Kames are committed to high welfare and sustainable farming operations. Kames are proud to supply our Scottish steelhead sea going trout locally, across Scotland, the UK and overseas to our customers.

The decrease in wild Atlantic salmon populations is well documented and of significant concern. It is known that this decline is across its whole North Atlantic range, diminishing populations are recorded in all areas around Scottish coastline not just in those areas where aquaculture operators are situated. Mortality at sea appears to be a major factor in the decline and although the reasons are complex it is accepted that climate change is a primary cause. Scottish Government *'Scottish Wild Salmon Strategy – January 2022'* and '*Wild Salmon Strategy Implementation Plan 2023-2028 – February 2023'* detail a series of 5 priority themes, with a total of 51 sub headings detailing specific aspects. The aim and objectives are for healthy and self-sustaining populations of wild Atlantic Salmon scientific, evidenced based management and resulting environmental/socio-economic benefits.

This consultation relates to the third priority theme in SWSS, *Understanding and mitigating pressures in the marine and coastal environment* point 3.6 *'The development of implementation of a risk assessment framework for managing the interactions between sea lice from marine fish farm developments and wild salmon and sea trout in Scotland'* and forms part of the overall response to declining Atlantic Salmon populations. The many pressures do not operate independently but act in conjunction amplifying climate change effects. It is therefore vital that all of the potential factors contributing to this should be addressed proportionately, in a scientifically robust manor and ensuring appropriate measurement of outcomes of each. Atlantic salmon have complex and varying habitat requirements over their lifetime; changes to quantity and quality of their habitat, feeding opportunities, predation pressures all have a potential to adversely impact to survival and growth.

Kames has engaged with the SEPA consultation process in regard to the development of the modelling tool to screen impacts of interactions between sea lice on wild salmonids from both existing and potential sites. While we appreciate the urgency to react to the salmon population crisis, the regulatory and enforcement actions must be based on balanced, proportionate, appropriately validated work with consideration of existing operational practices:

- Farmed Fish Health and Welfare - increasing water temperatures due to climate change, result in more frequent challenges such as gill health issues caused by plankton and/or jelly fish blooms. Pressure to treat during these episodes to ensure compliance has potential for serious harm to fish health and welfare;
- Financial Implications – the smaller production scale of independent operators such as Kames, means that the implementation of additional regulatory measures result in significantly greater cost of production burden which can be prohibitive for these operators;
- Sea Lice Treatment Measures for Trout - Kames farm steelhead trout which are sea going Rainbow trout, although salmonids, they are different to Atlantic salmon. Sea lice treatment methods have been developed for Atlantic Salmon and some, but not all, are available to us:
    - Cleaner Fish – Trout operators are not able to use cleaner fish as a sea lice control measure due to Fish Health Inspectorate assessment of the potential disease risk, specifically the transfer of Viral Haemorrhagic septicemia (VHS).
    - Mechanical Treatments - Kames utlilise third party well boats/equipment to undertake hydrolicer or thermolicer treatments. However, this use is reliant on availability and it is not cost effective for smaller trout sites to purchase such equipment. These mechanical treatments have limitations as they cannot be used in the summer with warmer water temperatures and the technology is still being developed, in particular for the hydrolicer to improve outcomes for health and welfare of trout.
    - Medicines –
        - In-feed treatments emamectin benzoate (EmBz) is available under current permit, however the change in EQS will reduce the treatment quantities available and consequently efficacy.
        - Bath treatments - azamethiphos and deltamethrin. The use of these bath treatments can be restrictive due to site specific treatment thresholds, are less effective than emamectin benzoate against *Caligus sp.* and have greater risk of damaging fish health effects caused by fish handling, especially when combined with higher summer water temperatures.

We request that this proposal is trialed with a pilot scheme to validate the model outcomes with live data. Due consideration is given where a reduction or limited suite of treatments is available to existing sites combined with the challenges of increasing water temperatures to farmed fish health and consequently our ability to control sea lice to levels to those we have previously achieved. Clarity to operators on how non-compliance would be deemed where these circumstances arise and the potential resulting impacts to our business and its contribution to the local and Scottish economies.