

## Our Position on Fish Farming

**This document outlines our position on salmon farming in Scotland, the problem as we see it, and the policy solutions we think are needed.**

### Trust position

1. Scotland's salmon farming industry is an important industry to Scotland, as well as the UK, and provides employment to people in rural communities on Scotland's north and west coasts.
2. The John Muir Trust is concerned about declines in the health of wild water marine habitats due to a range of factors including climate change and negative environmental impacts from salmon farms on sensitive marine and freshwater ecosystems. In some of Scotland's wildest landscapes, we have also been concerned about the visual intrusion of salmon farm infrastructure but accept that design innovation seeks to reduce visual impacts.
3. As well as current impacts, the Trust is concerned about plans for the industry's expansion and would like to see better:
  - a. management practices by the industry,
  - b. research on the cumulative impacts of the industry on ecosystems,
  - c. regulation and enforcement of environmental standards.

### Policy context and history of the issue

4. Since the early 1970s, records show a steady decline of wild salmonids returning to Scottish rivers from the seas. This decline has been seen during a time of climate change effects on oceans, expansion of industrial fishing at sea and the development and expansion of the salmon farming industry along the sheltered, inshore wild waters of Scotland's west and northwest coasts and islands.<sup>1</sup>
5. The negative environmental impacts of salmon farming have come under increased scrutiny for their role in the deterioration of the health of Scotland's coastal waters, creating conditions that are making it harder for wild salmonids to thrive. In 2018, the Environment Climate Change and Land Reform (ECCLR) Committee completed an inquiry into the impacts, making many strong recommendations and concluding that "the *status quo* in terms of regulation and enforcement is not acceptable".<sup>2</sup>
6. In 2018, the Scottish Government identified 12 high-level pressures, including fish farms, that could be contributing to the decline of wild salmonids. The Salmon Interactions Working Group (SIWG) was established to review the evidence presented during the ECCLR Committee and the Rural Economy and Connectivity (REC) Committee and to review current policy and actions. In April 2020, the SIWG published a report containing 42 recommendations for the Scottish Government, which intended to minimise the impact of fish farming on wild salmonids.<sup>3</sup>

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<sup>1</sup> British Ecological Society (2019), 'Understanding the Decline of Atlantic Salmon Catches in Scotland': <https://www.britishecologicalsociety.org/understanding-decline-atlantic-salmon-catches-scotland/>

<sup>2</sup> ECCLR Committee (2018), 'Report on the Environmental Impacts of Salmon Farming'

<sup>3</sup> SIWG (2020), 'Report of the Salmon Interactions Working Group': <https://www.gov.scot/publications/report-salmon-interactions-working-group/>

7. In its 2021-22 Programme for Government, the Scottish Government stated that it would “take forward an immediate programme of work to better protect wildlife and the environment, responding to the Salmon Interactions Working Group, consult on a spatially adaptive sea lice risk assessment framework for fish farms by the end of the year, and strengthen controls on sea lice, wrasse and fish escapes in the course of 2021-22”.<sup>4</sup>
8. In August 2021, the Scottish Government commissioned an independent review of the current regulatory processes involved in fish farming to ensure that the regulatory framework is efficient, effective and transparent, and to seek recommendations on work to reform the current regulatory framework.<sup>5</sup>
9. In October 2021, the Scottish Government published its official response to the Salmon Interactions Working Group Report, stating that they would adopt all of the SIWG recommendations.<sup>6</sup> The response also outlined the Scottish Government’s commitment to publish a “Wild Salmon Strategy” by the end of 2021, which would provide an overarching framework to tackle the pressures on wild salmon. The publication of this strategy was delayed due to the impact of the Coronavirus pandemic, but it was subsequently published in January 2022.<sup>7</sup>
10. One reason fish farms are a high-level pressure on wild salmonids is a result of the proliferation of sea lice at farmed fish sites which spread into the wider marine environment and harm wild fish. In February 2022 SEPA (Scotland’s Environment Protection Agency) developed and consulted on a ‘spatially based’ decision-making framework for evaluating and regulating the risk sea lice present to wild salmon. This was followed by a more detailed consultation which closed in September 2023.<sup>8</sup> A new framework for evaluating risk was confirmed by SEPA in December 2023.<sup>9</sup>
11. Given the aquaculture industry’s plans to expand Scotland’s salmon production, the Trust is concerned that without improvements in the management of environmental impacts there will be further long-term harm to the health of Scotland’s iconic wild salmonids. This could mean the potential collapse of a species, with knock-on effects on the health of wild waters and wild land.

## Why we care/relevance to the Trust

12. The John Muir Trust manages and cares for seven properties on Scotland’s north-west coastline: Torrin, Sconser and Strathaird on Skye, Li and Coire Dhorrcail on Knoydart, Sandwood and Quinag in Sutherland. Wild land and the surrounding wild waters are home to some of Scotland’s most iconic coastal species such as otter, greenshank and cetaceans. Both wild land and the surrounding wild waters **support habitats required for salmon to thrive.**

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<sup>4</sup> Scottish Government (2021), ‘Programme for Government 2021-22’: <https://www.gov.scot/publications/fairer-greener-scotland-programme-government-2021-22/documents/>

<sup>5</sup> Scottish Government (2021), ‘External Review of the Current Regulatory Processes Involved in Fish Farming’: <https://www.gov.scot/publications/aquaculture-external-review-of-the-current-regulatory-processes-involved-in-fish-farming/pages/letter/>

<sup>6</sup> Scottish Government (2021), ‘Salmon Interactions Working Group Report: Scottish Government Response’: <https://www.gov.scot/publications/salmon-interactions-working-group-report-scottish-government-response/pages/1/>

<sup>7</sup> Scottish Wild Salmon Strategy: <https://www.gov.scot/publications/scottish-wild-salmon-strategy/>

<sup>8</sup> <https://consultation.sepa.org.uk/regulatory-services/detailed-proposals-for-protecting-wild-salmon/>

<sup>9</sup> <https://beta.sepa.scot/news/2023/sepa-confirms-new-regulatory-framework-to-help-protect-scotlands-king-of-fish/>

13. Our staff work with local communities and support the work of the **Fisheries Trusts**<sup>10</sup>. We recognise that fisheries are a vital part of the local economy. Safeguarding the health of wild salmonids helps to support the viability of fishing, helping to keep this activity and the knowledge of this species alive. By **restoring natural processes** on our land, we can aid the recovery of key species such as wild salmon and sea trout. For example, planting native trees near riverbanks will enrich the riverbank and provide more nutrients to the burns and soil. The resulting increase in the number of insects and leaf litter will provide food for salmon and trout, whilst the tree root systems stabilise the riverbank, helping to slow the water's speed and providing shade for spawning salmon.
14. We have concerns about salmon farming practices and their negative **ecological impacts on wild coastal waters and wild salmonids**. Wild salmon are a migratory species that start life upstream and then swim to sea, returning to freshwater and their home river to spawn. They rely on healthy coastal ecosystems to complete their natural life cycle, and the upland ecology benefits from the nutrients provided by mature salmon returning from sea. We are also aware of the **visual intrusion impacts** of physical structures in wild coastal waters, which also diminish the wild qualities of the landscape. However, sensitive design and siting is a planning consideration and NatureScot has published guidance for fish farm planning applications for how to address visual impacts.<sup>11</sup>

### The problem as we see it

15. Most of Scotland's salmon farms are open-net cages suspended in coastal waters.<sup>12</sup> They provide a permeable barrier between the farmed salmon and the open sea. Whilst the salmon farming industry has started to invest in alternatives to open-net farms (e.g. fully closed systems and semi-closed systems), these are more costly than the open-nets, and there are concerns over the welfare of the farmed salmon contained in fully closed systems.
16. The environmental and ecological impacts associated with open-net cages are well documented and include impacts on the seabed, disease; organic and material waste; medicines and chemicals; farmed salmon escapes; sustainability of food supply; plastic pollution and impacts on wild wrasse and marine mammals.<sup>13 14 15 16</sup>
17. The Aquaculture and Fisheries (Scotland) Act 2013 provides regulatory control of the salmon farming industry. It was created to ensure that farmed and wild fisheries are managed effectively, including managing environmental impacts, yet the regulation

<sup>10</sup> For more information on Fisheries Trusts please see: <https://fms.scot/about-us-2/our-members/trusts/>

<sup>11</sup> NatureScot guidance on planning marine aquaculture: <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/marine-aquaculture>

<sup>12</sup> Scottish fish farm production survey, 2020 reported that 'In 2020, the majority of fish were produced in seawater cages', see Table 32, page 30. Report available at: <https://www.gov.scot/publications/scottish-fish-farm-production-survey-2020/documents/>

<sup>13</sup> ECCLR Committee (2018), 'Report on the Environmental Impacts of Salmon Farming'

<sup>14</sup> SIWG (2020), 'Report of the Salmon Interactions Working Group', page 3: <https://www.gov.scot/publications/report-salmon-interactions-working-group/>

<sup>15</sup> SEPA (2019), 'Independent Review of SEPA Fish Farm Survey Report on Environmental Impact of Medicine Use...': <https://media.sepa.org.uk/media-releases/2019/independent-review-of-sepa-fish-farm-survey-report-on-environmental-impact-of-medicine-use-on-scotland-s-seabed-published-in-international-journal.aspx>

<sup>16</sup> J. W. Bloodworth et al. (2019), 'Negative Effects of the Sea Lice Therapeutant Emamectin Benzoate...': <https://www.sciencedirect.com/science/article/pii/S0048969719309428?via%3DIihub>

lacks full enforcement and does not consider impacts on wild salmonids arising from the industry's environmental footprint.

18. The aquaculture industry has proposed a target for salmon production of 300,000 - 400,000t by 2030<sup>17</sup>, the upper end of this scale being an effective doubling of 2020 output. With a presumption against further salmon farm developments on the north and east coasts of Scotland to safeguard migratory fish species, this places the expansion pressure on Scotland's northwest coastal waters and wild land. At present, the Scottish Government has not set out how the increased pressures on the environment arising from the planned expansion will be mitigated.

## Policy solution

19. Although the Scottish Government response to the SIWG recommendations is welcome, the SIWG report made no mention of the precautionary approach recommended by both the REC and ECCLR Committees. **It is our view that a strong precautionary approach must be applied from the outset to the licencing of both new and existing farms, in line with the recommendations of both the REC and ECCLR Committees.**
20. We support and welcome SEPA's work to create and implement a new decision-making framework to regulate the interactions between sea lice and wild salmon. This is intended to support the revised regulatory framework introduced in 2019. The new decision-making framework needs to tie consent for new farms with spatial planning and area management frameworks, replacing the case-by-case approach used to date. This would help to reduce cumulative impacts of fish farms on the marine environment and ensure appropriate siting.<sup>18</sup>
21. The Scottish Government should expand its programme of research to include the migration of wild salmon off Scotland's northwest coast. Projects looking at migratory routes are already underway, but these are piecemeal and rely on funding being available. The Scottish Government should collaborate with researchers and wild fisheries managers to fund an expanded research programme to gain a complete picture of migratory routes along Scotland's northwest coastal waters.
22. Given the industry's plans to expand, tighter monitoring, enforcement and public accountability measures for how open-net fish farms are managed should be implemented. This is consistent with the SIWG recommendations for a single lead body, with appropriate powers for monitoring and enforcement and conditions attached to licences that protect wild salmonids.<sup>19</sup>
23. As the carrying capacity of Scotland's seas for salmon farming is unknown and has never been assessed, a detailed Strategic Environmental Assessment should be carried out before any expansion of existing farms or any new farms can be contemplated. This would be in line with the RECC's 2nd recommendation in their report from 2018, which stated '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.'<sup>20</sup>

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<sup>17</sup> Scotland Food and Drink (2017), 'Aquaculture Growth to 2030: A Strategic Plan for Farming Scotland's Seas'

<sup>18</sup> SIWG (2020), 'Report of the Salmon Interactions Working Group', page 8

<sup>19</sup> SIWG (2020), 'Report of the Salmon Interactions Working Group', page 5

<sup>20</sup> Rural Economy and Connectivity Committee (2018), 'Salmon Farming in Scotland'

24. Education in the industry about the impacts of chemicals on the marine environment and aquatic life should be promoted and encouraged. People who work in the industry should have access to information about ways they can help to reduce harm. In addition, we expect the Scottish Government's aquaculture vision to include practical ways for the salmon farming industry to invest in improved management.

## Policy outcomes

25. The Trust hopes to see the following policy outcomes:

- a) Scotland's wild Atlantic salmon strategy includes time-limited **actions for the salmon farming industry to improve management practices** to reduce harm to migrating wild salmon.
- b) Publicly and privately funded **research fills knowledge gaps on the risks** posed by salmon farms along most or all of the migratory routes of wild salmon on Scotland's northwest coast.
- c) A **tighter regulatory framework**, one that incorporates proper enforcement, is put in place by all relevant regulators, including planning authorities, and results in improved industry practices and improved marine habitat for wild salmonids.

Note: this position statement focuses on salmon fish farming in Scotland. That is not to say that the broad principles could not apply more widely to the fish farming industry in Scotland or the other UK countries. For the purposes of this statement, we considered it most helpful to focus on salmon fish farming, because salmon fish farming was the focus of the inquiries held in 2018 by the Scottish Parliament's Environment, Climate Change and Land Reform Committee (ECCLR) and Rural Economy and Connectivity (REC) Committees. The focus of the first ECCLR inquiry was to investigate the environmental impact of the salmon farming industry, whereas the second REC inquiry focused on identifying opportunities for the future development of the industry and explored the fish health and environmental issues identified in the ECCLR inquiry.

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