

PE1598/D

Marine Scotland letter of 2 August 2016

Dear Mr Howlett

PETITION 1598 : SALMON AND TROUT CONSERVATION SCOTLAND

Please find Marine Scotland's response to the Petition raised regarding the protection of wild salmonids.

The premise of the Petition is that aquaculture activity can have an impact on wild fish populations. We agree all human activity in the natural environment has some degree of impact. The essential point is to ensure that any unacceptable risks are identified and impacts are proportionately and effectively managed. To assist the Committee's consideration of the Petition, this response details the legislative framework together with the measures currently in place and being applied by Marine Scotland, directly or indirectly, to achieve this.

Scottish Government aims to create a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth, while protecting biodiversity. Marine Scotland's mission is to manage Scotland's seas for prosperity and environmental sustainability.

Aquaculture is a key and growing contributor to Scotland's economy, providing employment and investment, particularly in some of our most remote, coastal communities. It is estimated to generate economic activity in Scotland worth £1.86 billion every year, supporting 8,300 jobs. Rural communities have been reinvigorated by the jobs, re-population and local spending power of aquaculture companies, with real prospects of locked-in community benefit.

Scottish Government supports Scotland's aquaculture industry to achieve its sustainable growth targets with due regard to the marine environment, by 2020, as reflected in the National Marine Plan. If these targets are met the value to the Scottish economy could be well over £2 billion annually, supporting 10,000 jobs.

While supportive of aquaculture, Scottish Government has been consistent and clear that growth must be demonstrably sustainable, with due regard to the environment, alongside a thriving recreational fisheries sector. Scottish Government recognises the need to mitigate the impacts of salmon farming on wild fish, including salmon and trout, which are iconic and economically important species to Scotland. It is the aim of both the Scottish Government and the Scottish aquaculture industry to reduce any negative interactions between aquaculture and wild fish by lessening incidences of escape and managing sea lice to the lowest achievable level.

It is acknowledged that there are challenges, but we are of the view that Scotland has a legislative and regulatory framework in place which provides the right balance between growing aquaculture and protecting the environment on which both the aquaculture and wild fisheries sectors depend.

Scottish Government takes considerable steps to protect wild salmon. The majority of aquaculture production is based in the North West Highlands and Islands. This is with a presumption against development of marine finfish farm developments on the north and east coasts (where Scotland's largest salmon river catchments drain into the North Sea), as a precautionary measure to safeguard migratory fish species, which include approximately 80% of

Scotland's salmon. On the west coast and in the Western Isles, there are 4 Special Areas of Conservation (SAC) where wild salmon are afforded additional protections. Where a development is likely to have a significant effect in these SAC's, an Appropriate Assessment is undertaken, in line with Natura legislation, to address the potential impact on wild salmon, as a conservation feature prior to any planning decision being taken by the planning authority.

These safeguards are in addition to planning and consultation requirements under Town & Country Planning and Environment Impact Assessment (EIA) legislation. All farms must meet strict guidelines to ensure that the environmental impacts are assessed and managed safely. All applications for new and modified fish farm developments require a detailed assessment of the potential impacts of the development through an EIA and during the planning process, advice is sought from statutory consultees, including District Salmon Fishery Boards.

The Scottish Government also published "A Technical Standard for Scottish Finfish Aquaculture" in 2015. Alongside statutory training, the new Standard will ensure all finfish farms in Scotland have the appropriate equipment and operational procedures to help prevent escapes in future.

At the Public Petitions Committee the Petitioner suggested that all relevant legislation is pointed at the health and welfare of the farmed fish and not wild fish. The Aquaculture & Fisheries (Scotland) Act 2013, however requires that farmed and wild fisheries and their interactions must be managed effectively, maximising their combined contribution to supporting sustainable economic growth with due regard to the wider environment.

In Scotland, Fish Health Inspectors are appointed by Scottish Ministers to enforce fish health legislation. Fish farm businesses are authorised and subject to inspection for containment measures, disease control and sea lice management. Sea lice are regulated by several key pieces of legislation:

- The Aquaculture and Fisheries (Scotland) Act 2007: allows assessment of sea lice levels on-site and requires that satisfactory measures are in place for the prevention, control and reduction of sea lice.
- The Aquaculture and Fisheries (Scotland) Act 2013: any such person carrying out fish farming must be party to a farm management agreement or maintain a farm management statement.
- The Fish Farming Businesses (Record Keeping) (Scotland) Order 2008: records in relation to staff sea lice training, sea lice records, medicinal records and sea lice responsibility on farm.

Alongside legislative requirements, the Code of Good Practice for Scottish Finfish Aquaculture (CoGP) provides a standard against which farms are measured through independent auditing. The CoGP includes the National Treatment Strategy for sea lice and Integrated Sea Lice Management (ISLM), which is based upon current scientific knowledge and practices and is presently being reviewed by industry. The CoGP also includes suggested treatment criteria levels for sea lice. These criteria indicate a point at which farmers should consider carrying out a treatment for sea lice and should not be confused with thresholds or limits.

Fish Health Inspectors conduct a risk based surveillance schedule of all registered fish farms. In addition to the surveillance schedule the Fish Health Inspectorate (FHI) operate a risk ranked enhanced sea lice inspection regime, based on several indicator factors and previous sea lice performance and fully investigate sea lice control practices on site against legislation and CoGP recommendations.

Scottish Government has, over the last year, worked cooperatively with the aquaculture industry to agree a new sea lice management policy, including a redefining of “satisfactory measures” for the prevention, reduction and control of sea lice on farms as required by the Aquaculture and Fisheries (Scotland) Act 2007. This includes agreed reporting levels and increased monitoring and intervention. It also includes a backstop limit at which point enforcement action will be taken.

We believe that this new policy will result in further improvements to the management of sea lice by the aquaculture industry in Scotland, however this will take time.

The industry will continue to operate to their CoGP suggested criteria for treatment of 1.0 and 0.5 average adult female lice, the 0.5 level taking account of the migratory smolt runs, acknowledging the importance of wild salmon and recognising the interaction and potential for impacts.

In recognising that sea lice management is a challenge, both Scottish Government and industry have invested significantly in science, research and innovation to enhance the environmental sustainability of the sector.

The interactions between farmed fish, sea lice and wild salmonids is of international concern, but robust evidence regarding adverse impacts on the wild populations is lacking for Scotland. The Petitioners referenced a summary of science produced by Marine Scotland Science, drawing particular attention to this extract, “salmon lice can influence the population status of wild salmon.” This extract should be considered within the wider context of advice, that research in Ireland and Norway indicates sea lice can have an impact on wild salmon at the population level. No experimental evidence yet exists of such impacts of lice on wild populations of salmon in Scotland.

To address this knowledge gap, the Scottish Government, together with industry are funding research specifically to examine this issue, including match funding up to £22 million to establish the Scottish Aquaculture Innovation Centre (SAIC) in 2014, with sea lice management a priority. Research is also taking place to improve the understanding of salmonid and sea lice behaviours in the coastal zone, conducted with an aim to provide enhanced planning advice to reduce potential interactions; and to allow optimisation of area management boundaries.

We are also working closely with the industry to investigate and trial novel techniques for sea lice control which includes the use of cleaner fish as a biological solution to sea lice management, and in acknowledging the challenges and responsibilities of growing the sector sustainably, industry has invested significantly in the use of cleaner fish. The salmon industry has joint funded with SAIC, over £5 million, on research to enhance and upscale the commercial production of wrasse and to improve their deployment at sea sites.

In addition to the use of wrasse, there have been two further collaborative cleaner fish projects, to improve the sustainable supply of healthy lumpsuckers for use on salmon farms and research to provide the basis for bringing lumpsucker production to a commercial scale. Fish farmers in Scotland will not rely on cleaner fish as their sole method of lice control, they would always be used as part of a “tool-box” of control methods including chemical and physical treatments where appropriate. Investment is also being made in multi-trophic farming where seaweed, mussels, and salmon are farmed symbiotically to reduce environmental discharges.

Aware of their responsibility in sea lice management, industry are continually investing in and developing innovative techniques such as, using physical barriers (such as skirts) and technology

designed to physically dislodge or remove lice, including fish wash, thermal disruption and laser systems.

Where it has been possible equipment and technology has been shared within Farm Management Areas and across industry. The sharing of cleaner fish within industry has occurred in a small number of cases and where practical this continues to be encouraged.

The aquaculture industry both in Scotland and globally are now looking to trial equipment which will allow the sector to move further offshore into higher energy locations. This new operating model would help to design out husbandry and sea lice issues from first principles, which would in turn also help to address spatial capacity and wild fish interaction constraints.

Noting that this petition's call for farm site level reporting of sea lice, you may be aware that Scottish Government recently reviewed the public reporting of sea lice data (currently reported for 30 regions across Scotland). This was publicly reported to the RACCE committee.

In general, the public reporting of sea lice has been welcomed and the system operates effectively, providing information which is easily accessible and at an appropriate level for the wider public. Taking this into account, alongside the increased monitoring and intervention which will now be undertaken by Marine Scotland in cases of elevated sea lice levels, it has been concluded that there is no convincing case for requiring a change to the public reporting of sea lice at this time.

Regarding the petitioners concerns relating to the impact of sea lice medicines on shellfish, SEPA is the competent authority responsible for discharges from fish farms. The approach to licensing safe releases of potentially polluting substances is to determine the environmental concentration of that substance that poses no risk to the aquatic flora and fauna, and take steps to ensure that the concentration of that substance in the environment does not exceed this limit, these are known as Environmental Quality Standards (EQS). Where substances such as sea louse medicines are used by the fish farmer, traces of residues may be present in the sediments in the vicinity of farms. Fish farmers do not have exclusive use of the seabed around the farm and if fishermen pursue and catch shellfish in close proximity to the farm it is possible that such residues might be detectable in their catch. Importantly, following the permitted use of these medicines any residues will be at such low concentrations, that they pose no risk to consumers.

The Petitioners have suggested the solution to protecting wild fish is closed containment. We welcome any innovative and technological solutions to grow Scotland's aquaculture sector sustainably, through the development of more efficient farming methods which minimise potential environmental impacts including closed containment. Industry is already making significant investment here, with about half of all smolts in Scotland being produced in land based or in closed containment facilities. We will watch with interest how on-land salmon production develops both practically and economically but as a supplement to existing Scottish open-pen production, not as a replacement.

In addition to the increased smolt production in closed containment systems, the Scottish industry is looking to utilise such systems to grow smolts to a later stage of development before putting the salmon to sea. This allows a much shorter grow out phase in the marine environment with significant benefits in terms of bigger stronger fish more able to cope with high energy sites and a reduced need for treatment, for example, to deal with sea lice as the fish are exposed for a much shorter time.

Finally, the Scottish aquaculture industry remain committed to joint working with wild fisheries organisations, showing a productive and co-operative relationship with restoration and restocking projects. For example the River Lochy restocking programme, aided by industry technical expertise and facilities, released 90,000 smolts in 2014/15 and has contributed to an increase in rod catch as part of a wider 5 year project to assist 14 different rivers in Lochaber.

I trust this is helpful,

Yours sincerely

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Marine Scotland