

**PE1336/D**

**Ministear airson na h-Àrainneachd**

**Minister for Environment**

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Fergus D Cochrane  
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Public Petitions Committee  
The Scottish Parliament  
Edinburgh  
EH99 1SP

1 October 2010

Dear Mr Cochrane,

Thank you for your letter regarding Public Petition PE 1336.

It has not been possible to respond in the requested three pages to the committee's six questions and to the petitioner's nine bullet points and three questions, but efforts have been made to be as concise as is possible.

It is important to put the petitioner's requests in the context of developments over the last couple of years, particularly since the publication of "A Fresh Start: The Renewed Strategic Framework for Scottish Aquaculture" in May 2009. It is also important at all times to consider the state of the science and what we know of the interactions between farmed and wild salmonids.

The "farm gate" value of Scottish farmed salmon approached £350 million in 2008, with a significant increase expected in the 2009 figures given international increases in price and in the tonnage of fish harvested in Scotland. It plays a vital role in the social and economic fabric of a number of small remote and rural communities and is one of Scotland's major food exports. Our wild salmon and sea trout stocks also represent a major contribution to the economic and social wellbeing of Scotland's people, quite apart from their intrinsic value as critical elements of Scotland's biodiversity.

Marine survival of Atlantic salmon has declined substantially in the last 50 years. This is not unique to Scotland and similar declines have been detected in a number of monitored sites on both sides of the North Atlantic. The reasons for these declines are likely to be multi-factorial, and it is likely that no single remedy can rectify the situation.

In recent years, rod catches of sea trout for Scotland as a whole have been among the lowest in the last 50 years.

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Analysis of the catch data suggests contrasting trends on the east and west coasts. Taken as a whole, east coast rod catches have shown no clear trend, suggesting no clear long term trend in the numbers of fish entering fresh water and escaping to spawn. In contrast, sea trout catches in west coast fisheries have declined markedly over the same period, suggesting declining spawning escapement. The reasons for this decline are not clear. It should be noted that sea trout, when they migrate to sea, generally remain in coastal and inshore areas, whereas salmon are known to migrate longer distances, in some cases as far as West Greenland.

The Scottish Government has taken considerable steps to protect wild salmon and sea trout, as highlighted in the following response.

Let me now turn to the questions you have posed.

1. *Will you take, as requested by the petitioner, immediate action to protect wild salmon and sea trout stocks from inappropriate commercial fish farm activities by taking action to ensure that (a) all sea-based fish farms are moved away from the estuaries of major wild salmon rivers to reduce the impact of sea lice and (b) ban salmon smolt farms from operating within any wild salmon river system?*

In response to (a) it is important to point out that some of Scotland's largest salmon river catchments drain into the North Sea on the East Coast of Scotland, including the Tweed, Tay, Esks, Dee and Spey. A presumption against marine finfish aquaculture development on Scotland's East and North coasts *has been in place since 1999*. This was re-emphasised in Scottish Planning Policy (SPP) 22 *Planning for Fish Farming* when the responsibility for aquaculture development passed to planning authorities in 2007. An illustrative map showing the distribution of Scotland's fish-farms is attached at Annex A. In the order of 80% of Scotland's wild salmon caught on rod and line in 2008 were captured in North and East coast rivers. In addition to the North and East coasts of Scotland in which marine salmon farming is not permitted, there are 4 Special Areas of Conservation on the West coast and Western Isles which afford wild salmon additional protections.

A large part of Scotland is therefore already closed to marine salmon farming, and there is added protection in some other areas.

In relation to (b), the Scottish Government was asked to consider the impacts of freshwater smolt production on wild salmonids by the Closed Containment Working Group, which supports the broader Containment Working Group under the auspices of the Ministerial Group on Aquaculture. The Scottish Government is preparing to put that research project to tender. On completion the results of that study will be shared with stakeholders, with the policy implications then considered in light of the evidence.

It is important to note that the different approaches to smolt production in Norway and Scotland reflect the different ways in which the industry emerged in both countries, and the different infrastructure and hydrographic challenges faced. The Norwegian aquaculture industry made use of the hydroelectricity industry's pre-existing infrastructure, and made use of the long history of tank based smolt production which was part of the hydroelectric compensatory salmon restocking schemes.

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Thus, the use of piped freshwater to land based tanks was an easy production decision for businesses to make. Scotland in contrast lacks that infrastructure resource but does have freshwater lochs which do not freeze in winter, hence the different approaches which emerged.

2. *What is your response to the points made in the petition and the specific action called for by the petitioner, including the nine bullet points and three questions at the end of the petition?*

I shall address these requests and questions in turn.

### **The Petitioner's Requests**

i. *To ensure a sustainable salmon farming industry, the Salmon and Trout Association calls for—*

*The ultimate target of the industry and Scottish Government must be for the statutory use of enclosed systems for rearing fish, whether on land or at sea, therefore cutting out any interaction between farmed and wild salmon and sea trout. This should be within a timescale agreed between Government, industry and wild fish organisations.*

While a handful of experimental closed containment marine farms exist or are in production there has been no widespread or indeed significant adoption of such approaches. The Scottish Government will monitor such developments with interest, but believes that a unilateral enforcement of such approaches would result in the closure of the large majority of the Scottish salmon farming industry and the refocusing of international aquaculture investment in countries such as Norway, Canada and Chile. This would have dire consequences for a number of remote and rural communities in Scotland, and for the EU's stated desire to provide a larger proportion of its citizens' dietary requirements with regard to seafood. Additionally, such a step would be disproportionate given what we know of the multi-factorial nature of the challenges facing wild salmon and sea trout stocks, and the improvements which can be made in the control of sea-lice and in minimising escapes from existing marine cage farming installations – as I come to in response to the Petitioner's first question.

ii. *Meanwhile, the Precautionary Principle (as enshrined in EU legislation protecting species and habitats) should be adhered to at all times.*

As previously discussed, a presumption against finfish aquaculture in the North and East coasts of Scotland already exists, supported by 4 SACs offering additional protections on Scotland's West coast.

Local authorities are responsible for determining planning permission for new fish farms and in doing so consider a number of relevant factors, including environmental and Natural impacts. Parliament agreed that these powers were best left with local authorities when this issue was last discussed, reflecting the desire to retain an element of local democracy and accountability in the decision making process. Future decisions will of course be informed by the developing Marine Planning process, in which Local authorities will play a critical role.

iii. *An effective lice dispersal model must be developed in order to assess acceptable maximum farm/area lice levels*

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Work to develop validated sea lice dispersal models has been carried out by Marine Scotland Science, with a validated model for the Loch Torridon system already developed. The knowledge gained from that work is now being used by Marine Scotland Science and the Scottish Association for Marine Science to develop a similar model for Loch Linnhe. In addition we have received a European Fund application to develop a similar model for Loch Fyne.

*iv. A list of ecologically and economically sensitive sites should be drawn up immediately*

The petitioner has not suggested how such sites should be defined. This process would be over and above the existing designation process which exists under European legislation for such sites, and in addition to the existing presumption against development on the East and North coasts.

Wild fisheries interests are of course free to develop such a list with an explanation of the criteria applied. That list could be fed into the Marine Planning process for consideration by all the relevant authorities and users of the marine environment as that process develops and beds in.

*v. Sea-based salmon farms must be moved away from locations with significant salmon and sea trout migration runs, within estuaries, lochs and offshore. As a practical start, an experiment should be conducted by removing an individual farm from a sensitive site - agreed with wild fish organisations - and the effect on wild salmon stocks monitored.*

Such a step would raise a number of issues, regarding the rights of the owner of the fish-farm and of those employed on such sites. This is particularly the case when such a relocation would be carried out in the absence of clear evidence to support the perceived benefits of such a move.

Should a salmon farmer consent to move a site from an area viewed as “sensitive” by wild fisheries interests that farmer could apply to the European Fisheries Fund to cover a proportion of the cost of such a move. The farmer would also be required to apply for a replacement site in the normal way to the relevant planning authority, with no guarantee that such an application would be accepted.

*vi. No new sites should be permitted in sensitive areas highlighted by the list*

The petitioner does not set out the extent to which he believes factors other than salmon farming impact upon populations of wild salmon and sea trout. There is therefore no consideration of the proportionality of such a request or whether salmon farming alone should be highlighted as a sector against which action should be taken. For example does the petitioner suggest that stronger national controls should be put in place within such designated areas to minimise or prevent angling effort?

It is not possible to judge without seeing a list of such sites whether, taken with the existing extensive no-go areas for marine salmon farming, any space would remain for Scotland's salmon farming industry.

*vii. New fish farm applications must be supported by independent Environmental Impact Assessments (EIA)*

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Fish farm development is listed in Schedule 2 of the Environmental Impact Assessment Directive and EIA is not therefore mandatory. As a matter of best practice, the Scottish Government has introduced combined screening and scoping of finfish farm development proposals. This allows statutory consultees (such as the District Salmon Fisheries Boards) to have an input on whether a farm is likely to have a significant effect on the environment and thus assists planning authorities to determine whether EIA is necessary. Environmental Statements (ES) must be published and this gives the opportunity for interested parties to make their views known on both the ES and planning application.

*viii. Salmon smolt farms should be banned from operating within any wild salmonid river, unless in a totally enclosed system that stops any interaction between farmed and wild fish.*

See response to question 1(b).

*ix. The impact of escapees should be reduced by the mandatory stocking of sterile fish within an agreed timescale.*

The development of robust strains for triploid salmon is something which the Scottish Government retains an interest in. Previous use of these fish was not judged to be successful by the industry because they were not as robust as the usual (diploid) fish, grew more slowly and were considered to be prone to physiological stress. The Scottish Government remains open to developments in this field and acknowledges that there may be some place for the farming of sterile salmon when these hurdles have been overcome. Similarly, the selective breeding of salmon for resistance to sea-lice is an area in which progress could be expected to be made. Again the Scottish Government will pay close attention to developments in this area.

The Committee should be aware that the salmon farming industry, through the Containment Working Group and the Ministerial Group on Aquaculture, has signed up to the development of a statutory engineering standard for Scottish fish-farms. The contractor for that work will be appointed imminently, with the standard developed over the next year. This represents a major step forward for the industry that will serve to minimise escapes caused for example by storm events.

### **The Petitioner's Questions**

*A. Why does the Scottish Government allow the destruction of salmon and sea trout stocks on the west coast of Scotland by continuing to allow salmon farms to operate to a standard that scientific research shows is extremely damaging to wild fish stocks and the environment? Whereas other countries operate aquaculture units under Government regulation, the Scottish industry mainly operates under a voluntary code of practice, without serious sanction for malpractice.*

The petition does not consider the significant work commissioned by me under the auspices of the Ministerial Group on Aquaculture. That has seen working groups consisting of representatives from the wild fisheries sector and the salmon farming industry make a number of recommendations to me this summer.

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These recommendations include the development and implementation of a statutory engineering standard for fish-farms to minimise escapes; and a statutory requirement for fish-farmers to enter into Farm Management Agreements with other operators in their area, to encourage synchronisation on such issues as:

- Stocking
- Following
- Biosecurity
- Management practices, including in relation to the control of sea-lice
- Information sharing

This request that the existing regulatory regime be supplemented with these statutory requirements is a testament to the industry's desire to ensure that its own management challenges with respect to escapes and sea-lice are addressed.

*B. Why does the Scottish Government allow the siting of salmon farms on freshwater lochs that are connected to salmon rivers, even though the scientific evidence shows that there is the potential for massive damage to local native salmon stocks (this practice is banned in Norway)?*

See response to question 1(b).

*C. Why does the Scottish Government allow internationally based fish farm companies to operate in Scotland under less stringent environment constraints than in their home countries?*

I do not accept the premise of this question. It is not helpful to pick and choose elements of other countries regulatory regimes in this way. It is important to note that Norway has licensed many more salmon farms than has Scotland and that production volumes are many hundreds of thousands of tonnes higher than in Scotland.

We are nevertheless always vigilant to the responsibility of getting the balance of regulation correct. I have highlighted the recommendations of the Containment and Healthier Fish Working groups which would further strengthen the regulatory regime in Scotland and I will outline my response to those recommendations in due course.

Returning now to the committee's remaining questions:

3. *What assistance is available to fish farmers who wish to move off shore?*

The European Fisheries Fund is open to any fish-farmer who wishes to create a new fish-farm. The Scottish Aquaculture Research Forum is also open to requests from the industry for research into the engineering and other challenges which would arise from genuine "offshore" aquaculture.

4. *When will the marine licensing scheme administered by Marine Scotland come into force?*

This system will be introduced in Spring 2011, subject to secondary legislation. However it is important to note that in the case of aquaculture Local Authorities and SEPA will continue to play key consenting roles.

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5. *What work is being taken forward by the Expert Group on siting of aquaculture facilities in Scotland which is direct relevance to this petition and what is the timetable for action from that Group?*

This group was disbanded in 2008 and the Renewed Strategic Framework for Scottish Aquaculture provided a fresh assessment of the issues to be explored. Decisions on the siting of fish-farms outwith the extensive areas of coast which are already out of bounds for salmon farming developments are rightly made by local authorities, taking into account all of the relevant factors.

Planning authorities through their development plans are currently being updated, will determine where it is appropriate for fish farms to go and where it is not appropriate for them to go. This process will segue with the Marine Planning process as it develops.

6. *How is the regulatory framework being properly applied? Who is monitoring this?*

This question may refer to the point made by Mr Knight regarding the ability of Marine Scotland, under the Aquaculture and Fisheries Act (Scotland) 2007, to take samples of fish from farms for the purposes of investigating the origins of an escape.

Marine Scotland is at the stage of requiring samples to develop the methodology which could subsequently be used to determine the source of an escapes. This is one step removed from an investigation of the origins of an escape. We are currently considering how best to develop this important work and intend to discuss it further with the industry at the next Ministerial Group on Aquaculture.

7. *What use is being made of s5 of the Aquaculture (Scotland) Act 2007? What statistics can you provide on the number of tests and inspections?*

The programme associated with the containment and sea lice provisions of the Aquaculture and Fisheries (Scotland) Act 2007 commenced in November 2008 and comprised of inspections and audits based upon legal requirements and the standards specified within the Industry Code of Good Practice.

It was always the intention to review the programme at some point after its implementation. In April 2010 it was agreed that that review should take place and that certain revisions would be made. During the review period, which is still on-going, the audits that were being conducted ceased, although inspections have continued in association with other legal requirements for inspecting fish farm sites.

Between November 2008 and September 2010, 814 Containment inspections and 449 Sea lice inspections have been conducted. Between November 2008 and April 2010, a total of 38 Containment audits (plus 10 audit follow up inspections), and 31 Sea Lice audits were conducted. All audits and inspections have been conducted by the fish health Inspectorate of Marine Scotland.

I trust that this information is useful to the Committee in its deliberations and provides reassurance that significant action in these areas has been taken and that further improvements are already in development.

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