RURAL AFFAIRS, CLIMATE CHANGE AND ENVIRONMENT COMMITTEE

AGENDA

28th Meeting, 2012 (Session 4)

Wednesday 5 December 2012

The Committee will meet at 10.00 am in Committee Room 1.

1. **Subordinate legislation:** The Committee will consider the following negative instrument—

   Rural Development Contracts (Rural Priorities) (Scotland) Amendment Regulations 2012 (SSI 2012/307).

2. **Aquaculture and Fisheries (Scotland) Bill:** The Committee will take evidence in round table format on the Bill at Stage 1 from—

   Allan Wells, Policy and Planning Director, Association of Salmon Fishery Boards;

   Ken Whelan, Research Director, Atlantic Salmon Trust;

   Alex Kinninmonth, Living Seas Policy Officer, Scottish Wildlife Trust;

   Alex Adrian, Aquaculture Operations Manager, Crown Estate;

   Professor Randolph Richards, University of Stirling;

   Professor Chris Todd, University of St Andrews;

   Douglas Sinclair, Aquaculture Specialist, Scottish Environmental Protection Agency;

   Steve Bracken, Business Support Manager, Marine Harvest;

   Guy Linley-Adams, Environmental solicitor, Salmon and Trout Association;

   Professor Phil Thomas, Chairman, Scottish Salmon Producers’ Organisation;
Councillor George Farlow, Vice Chair of the Planning, Environment and Development Committee, Highland Council.

3. **Aquaculture and Fisheries (Scotland) Bill (in private):** The Committee will consider the evidence heard earlier in the meeting.

Lynn Tullis
Clerk to the Rural Affairs, Climate Change and Environment Committee
Room T3.40
The Scottish Parliament
Edinburgh
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The papers for this meeting are as follows—

**Agenda item 1**

COVER NOTE  RACCE/S4/12/28/1

*Rural Development Contracts (Rural Priorities) (Scotland) Amendment Regulations 2012 (SSI 2012/307)*

**Agenda item 2**

COVER NOTE  RACCE/S4/12/28/2

PRIVATE PAPER  RACCE/S4/12/28/3 (P)
Subordinate legislation cover note for SSI 2012/307

SSI/2012/307

Title of Instrument: Rural Development Contracts (Rural Priorities) (Scotland) Amendment Regulations 2012 (SSI 2012/307)

Type of Instrument: Negative

Laid Date: 16 November 2012

Circulated to Members: 29 November 2012

Meeting Date: 5 December 2012

Minister to attend the meeting: No

Drawn to the Parliament’s attention by Subordinate Legislation Committee: No

Reporting Deadline: 7 January 2012

Procedure

1. Negative instruments are instruments that are “subject to annulment” by resolution of the Parliament for a period of 40 days after they are laid. All negative instruments are considered by the Subordinate Legislation Committee (on various technical grounds) and by the relevant lead committee (on policy grounds). Under Rule 10.4, any member (whether or not a member of the lead committee) may, within the 40-day period, lodge a motion for consideration by the lead committee recommending annulment of the instrument. If the motion is agreed to, the Parliamentary Bureau must then lodge a motion to annul the instrument for consideration by the Parliament.

2. If that is also agreed to, Scottish Ministers must revoke the instrument. Each negative instrument appears on a committee agenda at the first opportunity after the Subordinate Legislation Committee has reported on it. This means that, if questions are asked or concerns raised, consideration of the instrument can usually be continued to a later meeting to allow correspondence to be entered into or a Minister or officials invited to give evidence. In other cases, the Committee may be content simply to note the instrument and agree to make no recommendation on it.

Purpose

3. The above Regulations (the 2012 Amendment Regulations) are made in exercise of the powers conferred by section 2(2) of the European Communities Act 1972. They amend the Rural Development Contracts (Rural Priorities) (Scotland) Regulations 2008 (SSI 2008 No.100) (the “2008 Regulations). The 2008 Regulations allow Scottish Ministers to pay European and national funds from the Scotland Rural Development Programme (SRDP) to beneficiaries of Rural Priorities.

4. A copy of the Explanatory Note and the Policy Note are included with the papers.
Subordinate Legislation Committee

5. At its meeting on 27 November 2012, the Subordinate Legislation Committee considered the instrument and determined that it did not need to draw the attention of the Parliament to the instrument on any grounds within its remit.

Recommendation

6. The Committee is invited to consider any issues which it wishes to raise on these instruments.

EXPLANATORY NOTE


Regulation 3 of these Regulations amends option 75 (erosion control) in Part 1 of Schedule 2 to the 2008 Regulations to remove the condition that a beneficiary may make a maximum of one claim in any one year and a maximum of 5 claims during the period of their contract.

Regulation 4 of these Regulations amends option 80 (open grazed grassland management for chough) in Part 1 of Schedule 2 to the 2008 Regulations to—

- clarify that livestock must only be treated with non-Avermectin based drugs unless advised by a veterinary surgeon and with the prior agreement from the Scottish Ministers;
- change the latest date for cutting silage to 30th June; and
- add a new condition requiring that hay and silage be cut in a wildlife friendly manner.

No Business or Regulatory Impact Assessment has been prepared for this instrument as it has no impact on the cost of business.

POLICY NOTE

The above Regulations (the 2012 Amendment Regulations) are made in exercise of the powers conferred by section 2(2) of the European Communities Act 1972. They amend the Rural Development Contracts (Rural Priorities) (Scotland) Regulations 2008 (SSI 2008 No.100) (the “2008 Regulations).
The 2008 Regulations allow Scottish Ministers to pay European and national funds from the Scotland Rural Development Programme (SRDP) to beneficiaries of Rural Priorities. The instrument is subject to negative resolution procedure.

Policy Objective

The purpose of the 2012 Amendment Regulations is to implement changes made to the SRDP which were recently agreed with the European Commission. The amendments to the 2008 Regulations relate primarily to changes to option management and operating conditions such as timing of cutting silage; and the addition of a new condition that hay and silage be cut in a wildlife friendly manner. The other change removes the condition that a beneficiary may make a maximum of one claim in any one year and a maximum of 5 claims during the period of their contract for option 75 (erosion control).

Background

The European priorities for 2007-2013 are laid down in the Rural Development Regulation (Council Regulation (EC) 1698/2005) The SRDP including Rural Priorities is designed to deliver outcomes to achieve these priorities in Scotland.

Rural Priorities is a competitive scheme to ensure that contracts are awarded for the proposals which are best able to deliver the agreed region priorities. Businesses, land managers and community groups can apply. There is a 2-stage application process. The initial stage is the submission of a simple Statement of Intent. In the second stage, applicants can prepare a detailed Proposal plus an Outcome Plan setting out how they would contribute to one or more regional priorities. Both stages are supported by case officers who advise on eligibility, regional priorities, budgetary positions and the need for consents/approvals.

Regional Proposal Assessment Committees (RPACs) will select which proposal to recommend for approval to Scottish Ministers.

Consultation

The original SRDP was submitted to the European Commission following consultation with stakeholders and agreed on 19 February 2008. These latest changes reflect modifications approved by the EC.

Financial effects

The instrument uses funding which the Scottish Government and the European Commission have allocated to Rural Development Contracts under the SRDP. We foresee no increase in costs to the Scottish Government, local government or business. We have therefore not carried out a Business and Regulatory Impact Assessment.
Aquaculture and Fisheries (Scotland) Bill at Stage 1

Introduction

1. The Aquaculture and Fisheries (Scotland) Bill\(^1\) was introduced in the Scottish Parliament on 3 October 2012. The Bill was referred to the Rural Affairs, Climate Change and Environment Committee by the Parliamentary Bureau for Stage 1 scrutiny on 23 October 2012.

2. The Committee agreed its approach to consideration of the Bill at Stage 1 at its meeting on 24 October 2012.

3. SPICe recently published a briefing on the Bill which is available at this link—


4. The Minister for Environment and Climate Change wrote to the Committee on 26 November 2012 to—

   - provide early sight of possible amendments that the Scottish Government would be proposing to the Bill at Stage 2, should the Bill proceed to that Stage;
   - provide the Committee with an updated response to the consultation document;
   - draw the Committee’s attention to recently published two page note on the provisions in the Bill in respect of Fixed Penalty Notices; and
   - inform the Committee that the Scottish Salmon Producers’ Organisation (SSPO) have committed to broaden their reporting of information on sea lice management and control from 1 January 2013.

Evidence gathering

5. A call for views on the general principles of the Bill was issued in October 2012 and closed on Monday 26 November 2012. All submissions can be found online at this link—


6. Submissions received by 23 November were circulated in hard copy with the papers for the meeting of 28 November. Submissions which were received after that date are attached at the Annexe to this paper.

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\(^1\) Aquaculture and Fisheries (Scotland) Bill. All documents available at: [http://www.scottish.parliament.uk/parliamentarybusiness/Bills/55381.aspx](http://www.scottish.parliament.uk/parliamentarybusiness/Bills/55381.aspx)
Witnesses

7. The Committee took oral evidence from the Scottish Government’s Bill Team on 28 November 2012, and will now hold three sessions on a themed basis, based on the parts of the Bill (fish farm management; salmon and freshwater fisheries; sea fisheries; and shellfish) as follows—

   Wed 5 December, fish farm management theme
   - a roundtable consisting of academics, representatives from both the farmed and fresh water fishery sectors, and bodies such as The Crown Estate, environmental groups and local authorities.

   Wed 12 December, salmon and freshwater fishery theme
   - two panels of salmon and freshwater fishery witnesses, examining both the state of resource and the fisheries.

   Wed 19 December, sea fishery and shellfish theme
   - a panel of witnesses on sea fisheries, followed by a panel of witnesses on shellfish.

8. The Minister for Environment and Climate Change will be the final witness on the Bill, appearing before the Committee on 9 January 2013.

9. The Committee will then consider a draft report at meeting in January and early February 2013, and will publish a report in February to comply with the deadline of 1 March 2013 for completion of Stage 1 which was set by the Parliamentary Bureau on 6 November 2012.

Clerks/SPICe
Rural Affairs, Climate Change and Environment Committee
Written submissions received since 23 November (26 with 24 endorsements)

1. Animal Concern and the Save Our Seals Fund
2. Atlantic Salmon Trust
3. Beauly District Fishery Board
4. British Trout Association
5. Dee District Salmon Fishery Board
6. Esk District Salmon Fishery Board
7. Andrew Graham-Stewart
8. Highland Council
9. Marine Concern
10. River Tweed Commission
11. Roc Sandford, Gometra
12. Royal Society of Edinburgh (RSE)
13. SaveSeilSound Campaign Group
14. Scottish Environment Protection Agency (SEPA)
15. Scottish Natural Heritage (SNH)
16. Scottish Water
17. Scottish Wildlife Trust
18. Sea Fish Industry Authority
19. Sealife Adventures
20. Spey Fishery Board
21. Tay District Salmon Fishery Board
22. Professor Chris Todd
23. Wester Ross Area Salmon Fishery
24. Association of Salmon Fishery Boards (16 endorsements)
25. Rivers and Fisheries Trusts of Scotland (RAFTS) (1 endorsement)
26. Scottish Environment LINK (7 endorsements)
27. Scottish Salmon Producers’ Organisation (1 endorsement).

Written submission from Animal Concern and the Save Our Seals Fund

This submission is made on behalf of the pressure group Animal Concern and the charity Save Our Seals Fund. We give permission for the Parliament to publish and distribute this submission as it sees fit.

We are extremely concerned that the proposed Aquaculture and Fisheries (Scotland) Act will not do nearly enough to protect the already over-exploited fish stocks targeted by the Scottish fishing fleets. From our reading of the Bill it will also continue to allow pollution, environmental damage and persecution of native wildlife by fishery and aquacultural interests.

Forgive me for taking up your time but I think it is important that I outline why I have concerns about how the Scottish Government intends to govern the fishing and aquaculture industries.
Over recent years we have been dismayed to see various Scottish Government Ministers, including the First Minister and more than one holder of the office of Cabinet Secretary for Rural Affairs and the Environment, spend an inordinate amount of time promoting commercial fishing and aquaculture and very little time addressing the perhaps terminal decline of over-exploited fish stocks and the damage done to the aquatic environment, both marine and freshwater, by industrial scale intensive fish farming.

It has been galling to see our First Minister participating in numerous promotional photo calls at north-east fishing ports and our Cabinet Secretary for Rural Affairs and the Environment lobbying at the E.U. for increased catch quotas for a fishing industry which in the last two years has seen a steady stream of Scottish skippers, many of whom were once industry leaders and spokesmen for different sectors of the Scottish fishing fleet, being convicted for their part in two of the largest and most lucrative organised crime syndicates ever to have operated in the United Kingdom. Not only did these skippers make over a hundred million pounds in illegal earnings, they systematically and knowingly broke fishery conservation quotas by tens of millions of tonnes of fish. Instead of protecting our marine environment our Cabinet Secretary for the Environment has been more active on behalf of an industry which has deliberately caused what may well be irreparable damage to that environment.

On June 7th 2012 a Government circular issued by Marine Scotland gave a link to a speech made by Alex Salmond to congratulate Marine Harvest on their huge expansion plans for salmon farming in Scotland. In his speech Mr. Salmond referred to “a vibrant, sustainable salmon farming industry”.

In a press statement issued on 15th November 2012 the current Cabinet Secretary for Rural Affairs and the Environment, Richard Lochhead MSP, speaking from Shanghai where he was on a trade mission with Seafood Scotland, Scottish Quality Salmon and the Scottish Salmon Producers’ Organisation, welcomed the winning of a new contract to promote Scottish farmed salmon and wild-caught langoustine by stating; “…… our seafood is fresh, healthy and sustainably sourced……”.

In October 2012 Richard Lochhead wrote to another Government Minister on the subject of salmon farms and seal killing. In his letter he stated; “The non-lethal measure that is generally accepted to be most effective against seals is tensioned nets, which although designed to keep fish contained also help to keep seals out. Almost all fish farms seeking a seal licence have such nets installed.”

This statement indicates that the Cabinet Secretary has a lack of basic knowledge of the subject, or perhaps to be more accurate, has received very poor advice from his advisors. The nets he is describing are current industry standard cage nets and do not give farmed salmon the protection from predators they are legally entitled to under the Animal Health & Welfare (Scotland) Act 2006.
Later in the same letter Mr. Lochhead claims that a fifth of salmon farms applying for licences to shoot seals "use anti-predator nets". That statement is untrue and Mr. Lochhead should know that. At the beginning of the year I submitted an FOI request asking how many salmon farms applying for licences to shoot seals used predator exclusion nets. Marine Scotland later revealed that 20% of the farms had anti-predator nets. However, on September 10th 2012, in response to an FOI response review, the Scottish Salmon Company wrote to the First Minister of Scotland. His reply contained this information; “A total of 13% of fish farms actively use anti-predator nets and a further 7% have anti-predator nets in storage.”

In other words 20% of the farms may own the nets but only 13% use them.

Given the current situation where only 13% of salmon farms are using predator exclusion nets it is totally misleading for Government representatives and others to claim that the shooting of seals is only permitted and carried out as a last resort.

It has also emerged from correspondence with Marine Scotland that the Scottish Government’s knowledge of anti-predator nets is mainly based on what they have been told about them by the salmon farming industry.

It greatly concerns us that the First Minister and his Cabinet Secretary for Rural Affairs and the Environment are both making extremely misleading statements regarding salmon farming. As far as we are aware there is no such thing as a sustainable salmon farming industry anywhere in the world. You still have to catch anything up to four tonnes of wild fish to produce each tonne of farmed product. Just because the species of wild fish which are turned into food pellets are often not fish which would be caught for direct human consumption does not make this sustainable. Industrial fishing to produce food pellets for salmon disrupts the marine food chain and may be hastening the dramatic decline of many marine species.

We are also extremely worried at the additional damage which could be caused by the massive increase in salmon farming in Scotland to exploit the new market in China. Our politicians have been pushing the industry into the Chinese market without a thought to the damage the current massive and rapid expansion of salmon farming will cause to our marine ecosystem and the creatures which inhabit it.

Doubling or trebling salmon output will result in greatly increased problems with sealice, increased use of toxic pesticides and a multiplication of the levels of faecal and other effluent from the fish cages. We could poison our sea lochs for the sake of a couple of years profit and then see the industry collapse when the Chinese Government, which stopped buying salmon from Norway after Norway awarded the 2010 Nobel Peace Prize to Chinese dissident Liu Xiaobo, either start producing their own salmon or realising that most salmon farms in Scotland are owned by Norwegians and take their business elsewhere.
In many areas of Scotland seal numbers are in decline. Issuing Government licenses to shoot seals is ludicrous, especially when, in the case of salmon farming, such shooting is carried out mainly for economic reasons. Our Government refuses to insist that salmon farmers use external predator exclusion nets to keep seals away from the inner cage nets holding the salmon.

The main reason for not insisting on the use of these nets is because salmon farmers say they entangle and drown seals and other wildlife and become clogged with weed thus reducing water and oxygen flow through the inner cage nets. This is indeed the case if exclusion nets are not designed and installed properly and regularly cleaned and maintained. In the past it was alleged that some salmon farmers deliberately set loose predator “exclusion” nets to entangle and drown seals. A forthcoming court case may prove such deliberate drowning of seals is not confined to the past.

The fact of the matter is that it costs a lot of money to install and maintain predator exclusion nets and farm owners would have to invest some of their profits and create some new long-term jobs to do this properly.

It should also be noted that the main reason for giving salmon farmers licences to shoot seals is to meet their legal requirement under the Animal Health & Welfare (Scotland) Act 2006 to protect their stock from the attention of predators. The 2006 Act does not simply require that salmon farmers protect their fish from physical injury from seal attacks but also from the fear, stress and suffering caused by seals getting close enough to panic the fish. This quite simply cannot be achieved by shooting as, unless you can find a marksman who can shoot in adverse weather conditions including fog and mist, it is impossible to shoot every seal that gets close to the cage nets.

When it comes to protecting salmon from harassment by seals the Government seal shooting licences are not fit for purpose. The only way a marine salmon farmer can meet his or her legal obligations under the Animal Health & Welfare (Scotland) Act 2006 is to install and maintain high-strength, high-tension predator exclusion nets at a distance from the cage nets which prevents seals presenting even a visual threat to the salmon.

Acoustic Deterrent Devices are routinely used at many salmon farms. A manager of a farm situated close to a known common seal haul-out site informed me that he ran his ADDs “24/7”. This is not use but abuse of acoustic scarers and can result in denying seals access to traditional haul-out, breeding and feeding sites which they have used for tens of thousands of years.

The adverse effect acoustic scaring devices can have on cetaceans in Scottish waters is largely unknown but common sense would suggest they are not good news for animals which rely on sonar and sonic communication over large distances. In the last two or three years there have been several cases of large pods of cetaceans becoming disorientated, with some being stranded, in areas with numbers of salmon farms.
If there is to be a fishing and aquaculture industry in Scotland in the long term then any Aquaculture and Fisheries Act needs to be designed to stop the suicidal decline of a sector which seems determined to put itself out of business. All commercial fishing efforts need to be restricted and capped at levels which allow fish stocks to recover and reach and maintain sustainable levels. This may well include setting limitations on the size and number of vessels in the fleet and the compulsory introduction of fishing gear which avoids by-catch and sea bed damage.

For decades we have promoted the idea of confiscating the vessels of skippers convicted of black fish landings, draining them of fuel, stripping them of anything toxic and giving them to the navy or air force for target practise. Sunk in a suitable area they would provide an artificial reef where trawling would be impossible and fish could breed undisturbed. Even without the benefit of an artificial reef, extensive no-fishing zones would be an excellent conservation measure and, if possible, should be provided for in any new legislation.

Commercial netting of wild salmon should be brought to a complete end. Apart from the damage done to wild salmon and seatrout stocks, salmon netsmen take a considerable toll in seals which they continue to shoot under Government Licence.

No salmon farm should be allowed to operate without installing and maintaining high-strength, high-tension predator exclusion nets at a distance from the cage nets which prevents seals presenting even a visual threat to the salmon. The use of ADDs should be greatly restricted to minimise the adverse effect they have on a variety of marine mammals.

Ideally the proposed Aquaculture and Fisheries (Scotland) Act should set out high minimum standards for all forms of aquaculture to minimise or eliminate any adverse environmental effects. These standards should address the fashion for making marine farms as unobtrusive as possible to avoid visual impact. If it is necessary to protect wildlife and/or aid safe navigation then fish farms should be compelled to employ highly visual safety equipment including bright, day-glo top nets to stop birds becoming entangled.

No salmon farm should be allowed within 3 miles of the mouth of any river which has runs of seatrout and wild salmon. Salmon farms should not be permitted within 3 miles of known seal haul-out sites and known sites used by breeding colonies.

Prior to the creation of an Aquaculture and Fisheries (Scotland) Act work needs to be done to pull together existing research to help fully evaluate the current and predicted impact of aquaculture and commercial fishing on the marine ecosystem. If that research causes a delay in creating the new Act then it would be worth waiting a bit longer in the hope of producing better legislation.

In the meantime the Scottish Government should introduce a total and immediate halt to the expansion of salmon farming at least until a full
assessment has been made of the environmental consequences of any expansion.

There should be environmental impact studies on all forms of aquaculture, including shellfish farming, to see what impact they have on the marine environment and the creatures which inhabit that environment. In particular it should be ascertained what impact predator control methods have on mammals and birds at fresh water smolt farms and marine salmon and mussel farms.

It is also vital that the Scottish Government drop the naive practice of taking and acting on the word of the fishing and aquaculture industries. It is ludicrous to simply accept it as fact when a fish farmer says predator exclusion nets don’t work or that they only shot X number of seals over a given period or that only a certain number of mors occurred on the farm or a certain quantity of pesticide was used over a certain period. These farms should be given a set standard of predator exclusion net to install and maintain, be subject to unannounced visits and externally audited to see how many bullets and how many barrels of pesticide they buy and use. Stock levels should be monitored and the number of mors and the methods of disposal monitored.

As for the commercial fishing industry we suggest following the maxim of taking fishermen’s tales with a large pinch of salt – the Scottish black fish scandals made the MPs expenses fiasco look like a petty cash error.

We hope that the time is taken to draft an Aquaculture and Fisheries (Scotland) Act which is fit for purpose and provides for the control and policing of industries which, without strong external intervention, will not only bring about their own demise but lay waste much of our marine ecosystem in the process.

Written submission from the Atlantic Salmon Trust

The Atlantic Salmon Trust is an independent charity financed by private donations and public sector grants. AST is the only independent organisation that devotes all its resources solely to the conservation of wild Atlantic salmon and sea trout. AST policy is based on advice from a distinguished group of scientists who, under the chairmanship of the Trust’s Research Director, comprise the Honorary Scientific Advisory Panel.

We welcome this opportunity to comment on the Aquaculture and Fisheries (Scotland) Bill introduced to Parliament on 3 October 2012.

General comments in response to the Bill

While AST avoids direct involvement in governance or fishery management matters, we do have a concern that there has been some unexplained slippage between the consultation stage and the contents of the Bill. In particular we note that some matters contained in the consultation document have been dropped, without reasonable explanation, prior to publication of the Bill.
We also note that the Summary Consultation Analysis portrays, in our view unnecessarily, and even perhaps divisively, comments on many of the proposals as being divided along ‘salmon farming industry versus wild salmonids lobby’ lines. We feel that this is an inaccurate picture. Responses to the consultation represent a broad cross-section, and in many instances views expressed by wild fish interests were echoed by different interest groups. We feel that the Bill provides an opportunity to demonstrate Government commitment to resolving difficulties in the relationship between the salmon aquaculture industry and wild salmonids interests, exemplified by the current dispute between SSPO and the University of St Andrews following publication by the Royal Society of a paper on the causes of marine mortality of wild Atlantic salmon.

We also find some of the assumptions made in the analysis puzzling. For instance, on the question of mandatory FMAs, the document states: “Although the concept of FMAs was generally supported by the aquaculture industry, they significantly opposed the proposal to make FMAs a legal requirement. This was supported by the wider campaign responses.”

We believe this would lead the reader to believe that the wider group backed the industry’s opposition to mandatory FMAs. The analysis shows that 86 responses were in favour of mandatory FMAs, while 26 were not.

**Policy Memorandum**

We note that within the Policy Memorandum accompanying the Bill, the use of the term ‘sustainability’ appears to refer only to economic sustainability, when, in the case of wild salmon stocks the main issues are environmental. While economic sustainability is important, we hope that the Memorandum’s over-emphasis on economic issues does not reflect a narrow focus on that aspect alone, when, in the context of Scotland’s natural resources, environmental, social and cultural issues are also important.

We note that the Policy Memorandum states that the questions posed in the pre-consultation document were not intended to delineate proposed elements of the Bill, but to explore effective use of existing enabling powers, to see if some of the aims could be achieved without further legislation. We find few grounds for comfort here. It seems to us that this is a tacit admission that the powers available under the 2007 Act have not been used effectively. There is no reason at present to believe that this situation will improve under any new Act.

Clause 8 of the overview of the objectives of the proposed legislation (contained in **SP Bill 17-PM**) states that: “The Scottish Government is committed to the support and protection of the country’s famous and valuable salmon and freshwater fisheries.”

AST believes that the first sentence should include the words ‘vulnerable’ or ‘fragile’. In the context of ICES data and the Scottish Government’s own analyses we know that returns of adult salmon to Scottish rivers, have
suffered serious declines over the past 30 years. Numbers of sea trout returning to fresh water throughout Scotland, but especially on the West Coast, have also declined alarmingly. Policies aimed at supporting and protecting these valuable wild stocks must be based on risk analysis methodology predicated on scientific data. Regulation of salmon aquaculture is an example of a new industry whose impacts on the marine environment and other species are not yet fully understood. While this uncertainty continues, supported as it is by justified concerns based on scientific data, we must at the very least adopt a precautionary approach.

The SPICE briefing on the Bill

We note that paragraph 44 of the SPICE briefing document states that “Sea lice data is publically available on an area basis.”

We would ask:

- Where, in November 2012, is such data ‘publically available’?
- Publication of aggregated figures, controlled by the SSPO, on a delayed basis, is unacceptable in the 21st century for an industry which claims to ‘have nothing to hide’. We need data on a ‘real time’ basis to allow mitigation measures to be put in place at the time of crisis, rather than reflecting on a disaster after it has occurred.
- Why can Scotland not have a similar level of transparency from the largely Norwegian-owned operators to that which they are obliged to comply with in their home country?

The Bill

The issue of transparency

We see serious disparities between Parts 1 and 2 of the Bill in terms of the demand for, or absence of, accountability. The principle of transparency which the Bill proposes on those who manage salmon fisheries does not appear to be applied with equal force to those who manage salmon farms. Indeed, the provisions for management of salmon fisheries introduce prescriptive demands which are entirely absent from those for salmon farms. Such disproportionate treatment is not conducive to an improved relationship between the managers of wild salmonids fisheries and the salmon farming sector. As stated in paragraph 2 above (under ‘general comments’) we feel that such different treatment of the two sectors can only exacerbate a difficult relationship at a time when the Bill could take this opportunity of demonstrating a fair commitment to both.

Part 1: Aquaculture

Our comments on the Aquaculture chapters of the Bill relate, unfortunately, as much to what was left out (following the pre-consultation) as to what remains.

We feel that Marine Scotland’s response to the consultation fails to adequately explain why some of the proposals that were consulted on, particularly those relating to aquaculture, have not been taken forward in this Bill, despite the fact that they were supported by a wide cross-section of
stakeholders. We are not reassured by the contention that there are alternative mechanisms for taking forward these proposals. Indeed, there appears to be a tacit acceptance of the fact that elements of the 2007 Act have not been adequately enforced. AST seeks assurance that these proposals which have been omitted from the Bill will be acted upon. We would also wish to see a clearly defined timetable for such action. Failing this, we would seek to have a number of those proposals included within the Bill.

Although respondents overwhelmingly supported the concept of a much higher level of transparency of data on fish mortalities, movements, disease and production, the Bill does nothing to take forward the concept of disclosure. This leaves Scotland far behind other salmon farming countries in respect of transparency of reporting, and open to EU and international criticism of neglecting its valuable natural resources.

- The **publication of sea lice data at an appropriate resolution** is one of the key issues for all organisations representing wild salmonids fisheries. The absence of such transparency in regard to sea lice data places insuperable barriers in the way of effective and long-lasting collaboration between wild fisheries and salmon farmers in assessing, at a local level, the success or otherwise of treatment strategies. It is also essential that fishery managers can be confident that in instances where farm treatment strategies have failed to control lice levels, there will be a requirement to adjust sea lice management and control strategies to ensure that lice levels can be controlled within the accepted parameters in future.

- Publication of sea lice data at a meaningful level of resolution would bring Scotland into line with other countries where salmon farming is carried out. It would also give an objective basis for assessing whether or not the salmon aquaculture industry is able to manage sea lice levels within acceptable parameters.

- Experience over the period since the 2007 Act has demonstrated that there is an unwillingness to put in place such a voluntary and timely reporting obligation. There is a similar reluctance to engage in transparent reporting of information on fish mortality, movements, disease, treatment and production.

- The impression given by this secretive culture within the sector is potentially immensely damaging to the interests of Scottish salmon farming and lays the industry open to speculation and criticism of its practices, whether they are well founded or otherwise. AST is absolutely clear on this point: there is no advantage to the industry in continuing to conceal data which should be in the public domain. We believe that a successful salmon farming industry should be no less accountable to the consumer than the beef industry is.

- **Summary.** The Bill does not address the issue of transparent reporting sufficiently. By failing to do so, and not taking note of global developments in aquaculture which embrace new technologies and
methods of production, the Bill may inadvertently put the Scottish salmon farming industry into a weak position to defend or promote its products. We believe that a modern industry should be no different from terrestrial farm production in terms of accountability for product treatment and origin. If we fail to do that, we will find that the global consumer will make that decision for us, with inevitable consequences for the industry and Scottish employment.

**Powers to revoke consents** for fish farms are crucial to the operation of a sustainable salmon aquaculture industry, as well as to fair and equal treatment of the interests of that industry, and of wild salmon and sea trout fisheries. Our understanding of the interactions between the aquaculture industry and wild salmonids is improving, but it is far from complete. At present it is therefore not possible to predict the effect of a particular farm site on wild fish. There are also gaps in our understanding of how cumulative impacts of farms can be accurately assessed.

Most fish farm developments currently receive permanent planning consent. The lack of powers to revoke consents is a cause for concern, because, in the context of climate change and the various biological, meteorological and oceanographic changes that are affecting the fauna and flora of the marine environment, no legislation should support permanent rights.

We note that 71% of the substantive responses to the consultation question were in favour of such a power. This is possibly the single most serious omission in the Bill.

We also note that, despite strong support for the proposal to give Scottish Ministers powers to reduce biomass on farm sites, in particular to ensure effective treatment of sea lice and reduction of benthic pollution, this is absent from the Bill. The same applies to the proposal that Scottish Ministers should be given powers to determine a lower threshold above which remedial action needs to be taken.

We believe that powers to require SEPA to reduce biomass consents should have been included in the Bill. SEPA’s ‘consideration of applications for biomass consents’ are limited to ‘discharges’ such as fish waste and sea lice treatments. It has long been a contentious issue that SEPA is not required to include sea lice larvae produced on salmon farms as a ‘discharge’. We would contend that these are an industrial discharge, and should be treated as such. In the absence of powers for SEPA to treat lice as a discharge, it is appropriate for Scottish Ministers to have the power to reduce biomass consents where such action is required for the welfare of wild fish.

*Marine Scotland Science* confirms that the industry’s Code of Good Practice takes no account of farm size, or number of farms in an area, in setting threshold levels for sea lice treatments. Given the growing body of knowledge on cumulative impacts of potential discharges of sea lice larvae on farms, we believe that there is no fail-safe mechanism in place to prevent significant numbers of larval lice being shed into the environment, thus posing an unacceptable risk to wild salmon and sea trout. This is true both in the case of
Management Areas containing a large number of smaller individual farms, and of the larger farms which are currently being consented.

We also note that SEPA appear to have only used their existing powers to reduce biomass on a handful of occasions, on the basis of benthic surveys, despite 44% of monitoring surveys between 2009 and March 2012 being deemed by SEPA to be “unsatisfactory”.

In terms of threshold levels for sea lice on farmed fish, above which remedial action needs to be taken, we would contend that the current levels, which are related to the number of lice per farmed fish, are inadequate in dealing with cumulative impacts. The absolute number of sea lice larvae released from a farm is the significant figure. We therefore believe that threshold lice levels should be changed to take into account the cumulative biomass in the local area in order to minimise risks to wild fish.

This is another significant omission from the Bill, given the apparent commitment of Scottish Ministers to protect both the salmon farming industry and Scotland’s wild salmonids.

The Atlantic Salmon Trust We are also disappointed to note that the Bill does not address the question of phasing-out of open net pen smolt farms in fresh water. The recently-completed WWF Salmon Aquaculture Dialogue produced a standard for farmed salmon which refuses accreditation to fish raised within such pens in countries which have populations of wild migratory salmonids. The Bill thus fails to address a major aspect of salmon farming practice within Scotland which is, according to the views of international experts, unsustainable.

Chapter 1

Section 1

Fish farm management agreements

We support the principle of mandatory membership of a Farm Management Agreement (where this is more than one operator in a Management Area) or provision of a Farm Management Statement where there is a single operator.

FMAs are identified as the vehicles for delivery of effective management of parasites and disease, as well as safe handling and movement of farmed fish. However, since membership of an FMA is restricted to fish farmers, the most valuable feedback loop which Area Management Agreements included is lost.

We are concerned that the Bill makes no provision for involvement of wild salmonids interests in Management Agreements, despite new research which provides strong evidence for the impact of elevated numbers of sea lice in aquaculture areas on wild salmon (Krkosek, M., Revie, C.W., Gargan, P.G., Skilbrei, O.T., Finstad, B. and Todd, C.D. Impact of parasites on salmon recruitment in the Northeast Atlantic Ocean. Proc R Soc B, November 2012). This paper demonstrated that, in light of the fact that marine mortality of
salmon remains very high, even a small improvement in the number killed by parasites would make a large difference to the potential number of returning fish. The evidence of adverse impacts of farm-produced lice on sea trout has existed for many years (see A Review of the Impacts of the Salmon Louse, Lepeophtheirus salmonis (Krøyer, 1837) on Wild Salmonids Prof. Ken Whelan Research Director, Atlantic Salmon Trust, August 2010. http://www.atlanticsalmontrust.org/assets/ast-sea-lice-impacts-review.pdf)

We note that, while there was no consensus in responses to the question of whether or not salmon farm operators should be allowed to define management areas, the Bill maintains the status quo in this respect.

- This means that Management Areas are still defined by operators alone, and delineated within the voluntary and solely industry-mediated Code of Good Practice.

- We note that Management Areas are extremely variable in size, and we believe that in some cases the current Management Area boundaries are based on operational expediency rather than robust data on biosecurity and control of sea lice and disease.

- Work on fully understanding the relationship between fish farm sites and the wider environment is still incomplete. This is particularly the case in understanding of the dynamics of sea lice larvae dispersal, and disease transmission.

- On that basis we supported the consultation proposal that Scottish Ministers should have powers to specify Management Area boundaries. We would therefore seek reassurance that Scottish Ministers will be able to specify FMA boundaries where necessary, in light of new knowledge.

Section 4B

Inspection

We find it indefensible that provisions for inspection of fish farm records are worded in such a way as to ensure that interested parties can still be prevented from obtaining data under Freedom of Information legislation, for instance sea lice counts on farms.

We welcome the fact that the Bill makes provision for Scottish Ministers to specify technical standards for fish farming equipment.

- To the best of our knowledge, there have been no prosecutions or enforcement notices issued under the 2007 Act in respect of escapes of farmed fish, despite the fact that the Scottish Government’s published statistics on farm escapes show that a very significant proportion of escapes in each year are due to human error rather than equipment failure or acts of God.
There is therefore an urgent need to include in Section 3 a requirement for mandatory training of fish farm operatives in effective use of all equipment, in particular the management and maintenance of nets and moorings, and safe use of workboats. Such training should be delivered by accredited trainers, and all fish farm personnel should be required to demonstrate competence in use of equipment. We remain to be convinced of substantial advantage in the legislation presently proposed in relation to containment of fish, since the provisions of the 2007 Act do not appear to have been effectively enforced.

We are disappointed to note that the proposal to introduce something similar to Norway’s Nytek standard has been rejected on grounds of cost. The specification of such standards has been proposed for many years. The Bill would offer an ideal arena for the introduction of a firm timeline towards such a national standard and in the long term it would reinforce the industry within the market and thereby protect the Scottish industry and jobs.

AST welcomes the provisions for increased regulation of wellboat operations, and the recognition that wellboat operation constitutes an area of risk in relation to spread of diseases and parasites.

We are puzzled by the fact that whereas the Bill recognises these risks in respect of wellboats, it does not appear to acknowledge similar risks, or propose similar controls, in respect of the farming of salmon in open net pens.

Part 2: Salmon Fisheries etc

The proposed amendments to the 2003 Act are mainly about governance. AST broadly supports the direction of development towards good practice, with greater transparency and accountability. We note that Scotland benefits from the devolved structure of its river boards in a way that England and Wales, with the centralised execution of powers by the Environment Agency, does not.

AST agrees with the Bill’s proposition that boards: a) should act fairly and transparently b) that there should be a Code of Good Practice for wild salmon and freshwater fisheries. Ideally, good practice, as set out in the ASFB’s CGP, should be spread evenly across all fishery boards, but the reality is that only those boards, with the resources to ensure that good practice standards are met, can do so. The best of Scottish Fishery Boards at least meet international standards of management, and in some cases exceed them.

- In general we note that many points raised by Part 2 of the Bill were not referred to in the consultation. For example, the principle of open meetings and availability of information is clearly correct in the spirit of open democratic government. We feel that this spirit of openness should be consistent throughout the two parts of the Bill, and they are not in certain sections of Part 1 Aquaculture.
- We make the point that it is not possible to manage natural resources without access to the fullest information available. However, we do
acknowledge that certain aspects of commercial activity and physical security may need to be treated in confidence.

- In general we agree that Board meetings should be held in public, although there may be good reason on occasions for certain aspects of the work of boards to be discussed in camera. Examples might include security or counter poaching matters, which could be dealt with at sub-board or management level.

- Governance of Boards does need to be more transparent and consistent in terms of good practice, but it is important that by implementing such standards we do not throw the baby out with the bath water. Local involvement is, in the view of AST, the key to good fisheries management, but only if there are inbuilt assurances of good governance and standards of delivery. Local involvement on a catchment basis ensures that knowledge on all aspects of human activity within a river catchment, some of which may impinge on fisheries, is shared in a convivial forum for discussion.

- Section 20 proposes the introduction of increased powers for Scottish Ministers to modify the good governance requirements by order. The question is whether a centralised and controlling set of powers at Holyrood will result in better management and husbandry in each river catchment. We doubt whether there is a need for this change, beyond the powers already held by Ministers under the 2003 Act, but we do recognise that the governance of the Boards needs to be seen to include local interests far more reliably and consistently than at present. We feel that the issue of competence is a matter for ASFB as the overarching representative body for Scottish Fishery Boards.

- The most cogent reason for wider stakeholder involvement on a catchment basis is the need for everyone involved with land or river management within a catchment to prepare for the effects of climate change, including invasive species, new diseases (e.g. Ash die-back), extremes of weather, and higher temperatures. There is an obvious need at catchment level for such stakeholder inclusion on a catchment basis, an inevitable consequence of which should be to make boards accountable and inclusive, and, importantly, to reduce a narrow focus or ‘silo mentality’. There are examples of such partnerships in the Aberdeenshire Dee and Angus South Esk catchments.

- AST therefore believes that Catchment partnerships, as exist in some areas already, should in our view become a mandatory part of governance, with central involvement of fishery boards and trusts. Only through such wider involvement can holistic management of river habitats and the species that depend on them be achieved.

- AST also supports ASFB’s welcome for the inclusion of a power to introduce a carcass tagging system in Scotland. Carcass tagging was a clear recommendation of the mixed stock fisheries working group (in which the AST was a participant) and there was overwhelming support for this provision in the consultation. Carcass tagging will bring the traceability of farmed salmon into line with other agricultural products and make a clear statement about Scotland’s respect for its global customers.
• AST welcomes the inclusion of a power to take fish or samples for analysis. Genetic analysis is a key tool in modern fisheries management and will enable rational management decisions to be made. Genetic mapping and attribution of salmon populations to regional or, in some cases, catchment salmon stocks, is in an early stage of development and is likely to become a vital tool in wild salmon and sea trout fisheries management.

Other issues

• Purchase of rod caught fish: It is illegal to sell rod caught fish but it is not illegal to purchase rod caught fish. This is clearly an anomaly: it should be illegal to both sell and purchase an untagged fish.

• for a It has long been recognised that mixed stocks coastal netting is bad fishery management practice. Both ASFB and AST participated in the Mixed Stocks Working Group and our responses on this issue are identical: “The weekly close times were put in place for sound conservation reasons and were designed to allow a proportion of the salmon run to have free passage into their natal rivers throughout the season. Therefore we believe that, where the close time cannot be adhered to for reasons of health and safety, the leaders should be removed for a corresponding period at the earliest next opportunity.

• The North Atlantic Salmon Conversation Organisation has successfully negotiated reductions in salmon fisheries in their marine feeding grounds in the North Atlantic. Mixed Stock Fisheries are now under international scrutiny in the context of tight restrictions of traditional high seas MSFs near Greenland and the Faroes.

• The operation of MSFs is contrary to internationally accepted best practice because they prevent management of the resource on an individual catchment basis. At a time of increasing pressure on wild Atlantic salmon throughout their range, it is reckless to continue the practice, especially in coastal areas where it is known that populations from catchments affected by that form of lethal exploitation are thought to be fragile, or are known to be below their conservation level (CL).

• AST has made it clear to ministers in other parts of the UK that new licences for MSF netting operations should not be issued. In Scotland we share ASFB’s view that, “when a netting station is put up for sale, or is to be leased to a third party, the relevant DSFB should, in the interests of salmon conservation, have a statutory right of first refusal to purchase (or lease) that netting operation before any proposed sale (or lease) could proceed”.

• The need for the equitable burden of conservation was recognised by the Mixed Stock Working Group, on which AST sat. If the real conservation value of every surviving salmon migrating back to

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2 NASCO: Established under the Convention for the Conservation of Salmon in the North Atlantic Ocean in October 1983
Scotland were recognised, and a conservation levy imposed for every fish killed the burden would be shared more equitably. AST respectfully points out that the favourable terms for contributions made by commercial netting interests is a historical relic and does not reflect the true value of each fish, nor the fragile condition of stocks.

Our final comment concerns climate change. The work done by AST and its international analogues and partners, including Scotland’s Ocean Institute and Marine Scotland, shows that the Atlantic Ocean is warming, and that the effects of this warming are advancing north at an average rate of 23kms each year. Warmer seas bring extreme weather, huge variances in pressure and massive changes to the pelagic layer of the ocean. The traditional feeding areas of Atlantic salmon are being squeezed and some places where Scottish salmon go to feed at sea are currently very poor in terms of prey species. New species, such as Gilt head bream and sea bass are arriving off the Scottish coast, some of which are predators of our migrating salmon smolts. The freshwater environment is also under pressure from flood, drought and temperature extremes. In this context we believe that we cannot continue to exploit salmon and sea trout as we have done in the past.

This Bill provides an opportunity to prepare for the inevitable changes that climate change will bring and to mitigate for changes that have already occurred.

Written submission from Beauly District Fishery Board

We refer to the request for written evidence to be submitted to the Committee in relation to the above Bill. The Beauly District Fishery Board would wish to endorse paragraphs 12-23 of the submission made by the Association of Salmon Fishery Boards (ASFB).

In addition, we would also wish to query the stipulation regarding declaration of Members’ financial interests. Whilst we understand the principles behind this, if is not clear how this can work as defined in the Bill given that Board members are elected from amongst the proprietors of fishing rights in any given District. The definition given in the Bill: - "means interests of a pecuniary nature that could be affected by a decision of the board, or the holding of which could otherwise have a bearing on or otherwise influence a member’s view on any matter being considered by the board" would on face value prevent the Board making any decisions that affect the District fishery. As proprietors, members by definition have a potential pecuniary interest in the decisions of the Board.

The ASFB response as endorsed by Beauly District Fishery Board is given below.

Section 20: Section 20 includes a number of amendments to the 2003 Act in relation to good governance. Whilst many of these provisions look reasonable, we are concerned that opinions on many of the specific provisions in the Bill were not sought during the consultation. The consultation asked three questions in relation to these issues: Do you agree that we
should introduce a specific duty on Boards to act fairly and transparently?; Do you agree that there should be a Code of Good Practice for wild salmon and freshwater fisheries?; If yes, do you think such a Code of Good Practice should be statutory or non-statutory?

We have no difficulty with the principle of publishing annual reports and audited accounts and indeed we encourage our members to do so via the DSFB’s Code of Good Practice. We would note that whilst we have no difficulty with providing copies of these documents to Scottish Ministers, this aspect was not consulted on.

Whilst we have no difficulty with the principle of open meetings, it is important and legitimate that some aspects of meetings can be held in private (e.g. when discussing deployment of bailiffs, CCTV cameras, staff wages etc.). It is also important that DSFBs are able to raise contentious ideas, which may never be taken forward, without concern that these would be taken out of context, given undue weight, or misinterpreted as DSFB policy if aired in a public meeting. Without clear guidance about what it is acceptable to discuss in private, this provision could have the result of inhibiting discussion within meetings. Ultimately, potential Board members in districts in which there are particularly contentious issues to be faced may even be put off from volunteering and giving up their time. We are aware that this is already an issue in some districts. The RACCE Committee will discuss its Stage 1 report in private but we are not aware that the Committee operates under a requirement to state their reasons for meeting in private as is set out in the Bill for DSFBs. We would again note that, although the consultation document stated that a Code of Good practice could include recommendations for Boards to hold meetings in public, there was no consultation on a legal requirement to do so. The cost of moving these meetings to a venue with sufficient capacity for members of the public, would involve a significant expense, which may prove disproportionate for many of the smaller DSFBs. In addition, some DSFBs operate over considerable geographical areas. For example, if the Argyll DSFB (total income through privately-funded levy system - £58,000) was required to advertise 4 meetings a year in all three local papers within that district, the annual cost of such advertisement would be £3,200. We would therefore seek clarity on exactly how such meetings should be publicised. A partial solution would be that the annual meeting should be a public meeting, and that there should be an opportunity for the public to attend part of all other meetings and submit proposals to be considered.

If necessary ASFB will work with Marine Scotland to help DSFBs set up a formal complaints procedure, where such a procedure is not already in operation. However, it should be noted that the processing of such complaints will usually be undertaken by the clerk. In the case of smaller boards, many employ clerks who are paid at an hourly/daily rate. If processing complaints (which may be ill-founded or arise from single-issue ‘campaigns’) becomes arduous, this will result in resources being diverted from other areas of operation. It is worth noting however, that this provision was not consulted on, or even mentioned in the consultation document, and indeed, there is a
fundamental question as to why such a statutory provision is necessary. Should such a procedure be deemed necessary, we are not aware of any public bodies operating under a requirement to publish the number of complaints and a statement of the nature of each complaint and how it was disposed of. This aspect of the proposal appears to be unnecessarily prescriptive.

Section 20 includes an open-ended power for Scottish Ministers to modify the good governance requirements by order. We do not support such potentially wide-ranging changes being delivered through secondary legislation and we believe that any future changes should be subject to proper parliamentary scrutiny. If, for example, this power is used to prescribe DSFB functions in legislation, DSFB donations to Fishery Trusts (which totalled £610K in 2010) would have to be linked to specific services and therefore subject to VAT. This, coupled with the potential additional costs outlined above, could have a significant negative effect on the core funding of fishery trusts across Scotland.

The Aquaculture and Fisheries (Scotland) Act 2007 contains a provision that Scottish Ministers may by order approve any code of practice issued for the aquaculture industry. In our consultation response, we supported a similar approach being adopted towards the DSFB Code of Good Practice, and indeed this approach was specifically highlighted by Marine Scotland in the consultation. In the interests of fairness and equality between the two sectors, we would therefore suggest that this approach would be more proportionate and would allow us to deal with some of the issues highlighted above. We would of course be very happy to work with Marine Scotland officials to ensure that the ASFB Code is consistent with the principles outlined in the Bill. We would be content for the Ministerial Power to dissolve the committee constituting a board to remain, in an amended form, to reflect the above approach.

Section 21 includes a duty to consult and report before making certain applications. We have no difficulty with this provision.

We welcome the inclusion of a power to introduce a carcass tagging system in Scotland but we believe that this provision should be delivered in primary legislation. Carcass tagging was a clear recommendation of the mixed stock fisheries working group and there was overwhelming support for this provision in the consultation. Whether delivered via primary or secondary legislation, we would seek a clear assurance that a statutory system, using individually numbered, recorded tags, will be in place in time for the 2014 salmon fishing season. Any system which does not use numbered tags would not allow verification of catch data, nor would it prevent illegal sales of fish from other parts of the United Kingdom (where tags are numbered) or of fish caught by rod and line (sales of which are banned by the 2003 Act). Equally, DSFBs are strongly in support of a national carcass tagging system for all rod caught fish not returned to the river. We believe that carcass tagging of rod caught fish would be a useful tool to aid DSFBs in ensuring compliance with their conservation policies.
We welcome the inclusion of a power to take fish or samples for analysis. Genetic analysis is a key tool in modern fisheries management and will enable rational management decisions to be made. We believe that genetic samples can be taken without killing the fish in question but where such sampling would be likely to involve killing fish we consider that the local DSFB should be fully consulted prior to sampling taking place.

Section 25 provides that Scottish Ministers can impose requirements on DSFBs and proprietors in relation to the monitoring of certain orders. We believe that monitoring of such orders is consistent with evidence-based management and on that basis we are supportive of this in principle. However, this section also makes failure to monitor and evaluate the effects of an order a criminal offence, on which a DSFB may be convicted on the evidence of one witness. This appears to be totally disproportionate, and again, may result in potential Board members being put off from volunteering and giving up their time. We understand that the inclusion of the provision that the Board may be convicted on the evidence of one witness is a drafting error, but we would highlight again that this is disproportionate in the case of a Board failing to meet a monitoring requirement. Finally, we believe that there would need to be a degree of proportionality in placing monitoring requirements on a DSFB, due to the potential expense and/or expertise required to carry out such monitoring, particularly in the case of smaller Boards. We would be concerned if Scottish Ministers were to take out an order at their own initiative, and then impose a legally binding requirement to monitor such an order on that Board. We therefore believe that s25 should only apply where a DSFB or proprietors have applied to Scottish Ministers for such an order.

Section 26 includes an open-ended power for Scottish Ministers to vary the procedures for various orders. As we stated earlier, we do not support such potentially wide-ranging changes being delivered through secondary legislation and we believe that any future changes should be subject to proper parliamentary scrutiny.

Section 28 includes a power for Scottish Ministers to modify DSFBs functions with respect to consenting of introductions (stocking). Such regulations may specify circumstances or cases where the consenting function is to be exercised by Scottish Ministers (as is currently the case for all other freshwater fish species) or when applications for consent should be referred to them. We note that Scottish Ministers already have jurisdiction over fish introductions in those parts of Scotland which are not covered by DSFBs. In addition, Scottish Ministers have jurisdiction over introductions of other freshwater species throughout Scotland. However, we are not aware of any evidence to suggest that the use of such regulatory powers is significantly better in those areas of Scotland under the jurisdiction of Scottish Ministers. Indeed, we would argue that some of the most concerning examples of questionable practice occur in these areas. We therefore believe that, should this power be exercised, that all decisions on stocking (all species) should be
considered by a panel of independent stakeholders, prior to the granting of consent.

Written submission from the British Trout Association (BTA)

The BTA thank the Rural Affairs, Climate Change and Environment Committee for this opportunity to submit written evidence concerning the Aquaculture and Fisheries (Scotland) Bill.

Background

The BTA are the representative trade association for the UK trout farming industry with a membership accounting for approximately 90% of all domestic trout production. Brown trout and, predominantly, rainbow trout are farmed in Scotland for both the table market (direct human consumption) and the restocking market (trout farmed for live stocking either into enclosed Stillwater fisheries or certain open waters for the purposes of recreational angling).

- Scotland currently accounts for slightly less than 50% of UK farmed freshwater trout production and 100% of large trout production, that is, rainbow trout farmed in brackish or salt water.
- Approximately 60% of table trout farmed in the UK is currently processed in Scotland.
- For several years, production of farmed trout in Scotland has been in decline. Whilst recent falling tonnage figures may be attributed to a variety of factors, BTA remain extremely concerned at any unnecessary regulatory burden that may further limit or adversely affect production, or place the Scottish production industry at a further competitive disadvantage.
- Of the 23 registered trout aquaculture production businesses in Scotland, all are privately owned, with 22 being classed SME producers, and at that micro to small production businesses.
- 2 trout farming businesses operating in Scotland farm sites in both fresh and saltwater.

General Comments

Most of the aspects of this Bill that relate to aquaculture, along with the justification for and preparatory work leading up to the publication of this Bill, appear designed to address issues, either perceived or actual, relating to salmon farming. Scottish aquaculture is not exclusively salmon farming, and it is important that in the passage of this Bill the ramifications for non-salmon aquaculture production are taken into account. Not only does this include shellfish, but also those sites which produce trout, charr (farmed either in freshwater or marine waters) and halibut (marine). The potential for the future

4 For further information on production tonnage figures and the size, structure and employment provided by trout farming in Scotland see: http://www.scotland.gov.uk/Topics/marine/science/Publications/stats/FishFarmProductionSurveys
development of these, and possibly other, species should also be considered in the development of any legislation.

Whilst it is understandable that most attention is paid to the largest industry sector, or to those issues which have attracted most publicity and correspondence, the wider ramifications of proposed legislation must not be overlooked. During the passage of this legislation, and any secondary or subordinate legislation, it must be made clear where regulation is intended to relate to all aquaculture, and where it is to be restricted to specific sectors or species.

Committee visits and the SPICe briefing note on the Bill have not considered trout farming and we would welcome the opportunity to provide any further information that might be helpful to the Committee on our sector.

With relation to the Bill we have specific concerns at the application of aspects of Part I and Part 5 to our sector in terms of appropriateness and disproportionate cost burden:

**Part 1**

Part 1, Chapter 1, 1 (5) of the Bill contains inaccuracies relating to the management and operation of the Code of Good Practice for Scottish Finfish Aquaculture (as does the supporting BRIA). However, we would note that officials from Marine Scotland have acknowledged this point and advise that appropriate action will be taken to rectify this during the passage of the Bill through Parliament.

We draw the attention of the Committee to the fact that any fish farm management agreements must remain sufficiently flexible so as to allow for changes of operators and operations within any given area, and not to lead to a situation where various management areas become de facto closed shops, with no scope for new, particularly small scale operators, to become established. To be of any use, farm management agreements will also need to remain flexible, dynamic management tools and should not be thought of as inflexible or overly prescriptive operating protocols.

We remain unclear of the intention regarding proposals contained in section 2, in terms of application to farmed trout. We note that there are discrepancies in the text between the Bill, BRIA\(^5\) and Policy Memorandum\(^6\), it being unclear if these proposals apply exclusively to farmed salmon or for all farmed fish. More generally, we remain unconvinced of how practical the proposals contained in section 2 are, and whilst there could be situations where such provisions might be useful and lead to conclusive results this is unlikely always to be the case yet might still prove a significant use of resources.

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\(^5\) See page 8 – Sectors and Groups affected, “escapes and taking samples from fish farms – Marine finfish farming sector”

\(^6\) We note reference in the Policy Memorandum (Section 55, p.11) that “Marine Scotland Science is developing a methodology on the use of forensic tracing of escaped farm salmon in Scotland”. The remainder of this section and section 56 following appear to consider Atlantic salmon only.
Part 5

We appreciate the trend towards cost recovery and the transfer of cost from the public sector to the private sector. However, much of Part 5, 50 of this Bill is of concern to us. Whilst this legislation will only grant the legal basis for certain charging to be introduced at a future point, the Committee will appreciate our concern at the lack of detail provided during consultation on what future charging might look like. We are in no way reassured from the language used in supporting documentation (e.g. the BRIA) that charging will be “proportionate”. What is proportionate in the operation of a large scale multi national company or affluent fishery is often not “proportionate” to a small scale or micro business, already operating on tight margins in a highly challenging market. We have experience of the disproportionate costs to our members of other chargeable activity – for example certain SEPA licences – and are extremely concerned that the instigation of further charges applied wholesale to an industry with such disparity as the aquaculture industry will, if not carefully considered, render the smallest operators unviable.

At the point of any future charging scheme or cost recovery exercise being introduced we expect due consideration to be given to SME businesses. We would also expect any chargeable activity to be made available to open competition, and for any cost recovery mechanism to be fully transparent and open to appeal. Current charging schemes that cover other aspects of aquaculture production (e.g. SEPA) are considered to be inflexible with a disproportionate cost impact upon small scale aquaculture businesses.

This situation is further compounded for a Scottish trout farming industry that is in direct competition with businesses farming in England, Wales and Northern Ireland, where the regulatory landscape is significantly different to Scotland. Similar proposals as those outlined in this Bill are not under consideration elsewhere in the UK, nor indeed are we advised that they are likely to be. The Committee will appreciate the concern of Scottish farmers that they are to operate under a potentially higher cost burden that their competitors. It would also be detrimental to the Scottish industry were business development and expansion to take place at sites and locations elsewhere in the UK, to avoid the higher cost of production incurred in farming in Scotland. There is already significant cross border movement of trout, both in the table and restocking markets, and Scottish Government must consider the ramifications of any actions which make farming in Scotland a less desirable option to farming elsewhere in the UK.

Concluding Remarks

Although not relating to the actual text of the Bill, we retain concerns that the passage of this legislation will do little to address many of the criticisms which are directed at Scottish aquaculture. As important as any legislation is the need for Scottish Ministers to engage in an ongoing consultative process with all those interested parties involved in the aquatic environment, and for Scottish Government to develop a better understanding of the issues and motivations relating to aquaculture and fisheries interests. An informed and inclusive discussion process, that is semi-formalised, well resourced and
established with the intention of enduring into the future, will better manage conflicts of interest, especially where there is no clear cut single option as to how best to proceed and where many issues at stake are those which cannot easily be resolved through either primary or secondary legislation.

Written submission from the Dee District Salmon Fishery Board (Dee DSFB)

Introduction

The Dee District Salmon Fishery Board (Dee DSFB) welcomes the opportunity to comment on the general principles of the Aquaculture and Fisheries (Scotland) Bill. The Dee DSFB has restricted comments to Part 2 of the Bill but would support the position of the Association of Salmon Fishery Boards (ASFB) with respect to its comments on Part 1.

Part 2: Salmon Fisheries etc.

Section 20 includes a number of amendments to the 2003 Act in relation to good governance. Whilst many of these provisions look reasonable, we are concerned that opinions on many of the specific provisions in the Bill were not sought during the consultation. For example the consultation asked three questions in relation to these issues: Do you agree that we should introduce a specific duty on Boards to act fairly and transparently?; Do you agree that there should be a Code of Good Practice for wild salmon and freshwater fisheries?; If yes, do you think such a Code of Good Practice should be statutory or non-statutory?

We have no difficulty with the principle of publishing annual reports and audited accounts and indeed subscribe to the ASFB Code of Good Practice.

Whilst we have no difficulty with the principle of open meetings, it is important and legitimate that some aspects of meetings can be held in private (e.g. when discussing deployment of bailiffs, CCTV cameras, staff wages etc.). It is also important that DSFBs are able to raise contentious ideas, which may never be taken forward, without concern that these would be taken out of context, given undue weight, or misinterpreted as DSFB policy if aired in a public meeting. Without clear guidance about what it is acceptable to discuss in private, this provision could have the result of inhibiting discussion within meetings. Ultimately, potential Board members in districts in which there are particularly contentious issues to be faced may even be put off from volunteering and giving up their time. We are aware that this is already an issue in some districts. The RACCE Committee will discuss its Stage 1 report in private but we are not aware that the Committee operates under a requirement to state their reasons for meeting in private as is set out in the Bill for DSFBs. We would again note that, although the consultation document stated that a Code of Good practice could include recommendations for Boards to hold meetings in public, there was no consultation on a legal requirement to do so. The cost of moving these meetings to a venue with sufficient capacity for members of the public, would involve a significant expense, which may prove disproportionate for many of the
smaller DSFBs. A partial solution would be that the annual meeting should be a public meeting.

If necessary Dee DSFB will seek support from ASFB to set up a formal complaints procedure. However, it should be noted that the processing of such complaints will usually be undertaken by the clerk. In the case of smaller boards, many employ clerks who are paid at an hourly/daily rate. If processing complaints (which may be ill-founded or arise from single-issue ‘campaigns’) becomes arduous, this will result in resources being diverted from other areas of operation.

Section 20 includes an open-ended power for Scottish Ministers to modify the good governance requirements by order. We do not support such potentially wide-ranging changes being delivered through secondary legislation and we believe that any future changes should be subject to proper parliamentary scrutiny. If, for example, this power is used to prescribe DSFB functions in legislation, DSFB donations to Fishery Trusts (which totalled £610K in 2010) would have to be linked to specific services and therefore subject to VAT. This, coupled with the potential additional costs outlined above, could have a significant negative effect on the core funding of fishery trusts across Scotland.

The Aquaculture and Fisheries (Scotland) Act 2007 contains a provision that Scottish Ministers may by order approve any code of practice issued for the aquaculture industry. In our consultation response, we supported a similar approach being adopted towards the DSFB Code of Good Practice, and indeed this approach was specifically highlighted by Marine Scotland in the consultation. In the interests of fairness and equality between the two sectors, we would therefore suggest that this approach would be more proportionate and would allow us to deal with some of the issues highlighted above. We would of course be very happy to work with Marine Scotland and ASFB officials to ensure that the Code is consistent with the principles outlined in the Bill. We would be content for the Ministerial Power to dissolve the committee constituting a board to remain, in an amended form, to reflect the above approach.

Section 21 includes a duty to consult and report before making certain applications. We have no difficulty with this provision.

We welcome the inclusion of a power to introduce a carcass tagging system in Scotland but we believe that this provision should be delivered in primary legislation. Carcass tagging was a clear recommendation of the mixed stock fisheries working group and there was overwhelming support for this provision in the consultation. Whether delivered via primary or secondary legislation, we would seek a clear assurance that a statutory system, using individually numbered, recorded tags, will be in place in time for the 2014 salmon fishing season. Any system which does not use numbered tags would not allow verification of catch data, nor would it prevent illegal sales of fish from other parts of the United Kingdom (where tags are numbered) or of fish caught by rod and line (sales of which are banned by the 2003 Act). Equally, DSFBs are strongly in support of a national carcass tagging system for all rod caught fish not returned to the river. We believe that carcass tagging of rod caught fish
would be a useful tool to aid DSFBs in ensuring compliance with their conservation policies.

We welcome the inclusion of a power to take fish or samples for analysis. Genetic analysis is a key tool in modern fisheries management and will enable rational management decisions to be made. We believe that genetic samples can be taken without killing the fish in question but where such sampling would be likely to involve killing fish we consider that the local DSFB should be fully consulted prior to sampling taking place.

Section 25 provides that Scottish Ministers can impose requirements on DSFBs and proprietors in relation to the monitoring of certain orders. We believe that monitoring of such orders is consistent with evidence-based management and on that basis we are supportive of this in principle. However, this section also makes failure to monitor and evaluate the effects of an order a criminal offence, on which a DSFB may be convicted on the evidence of one witness. This appears to be totally disproportionate, and again, may result in potential Board members being put off from volunteering and giving up their time. Also we believe that Section 25 should only apply where a DSFB or proprietors have applied to Scottish Ministers for such an order.

Section 26 includes an open-ended power for Scottish Ministers to vary the procedures for various orders. As we stated earlier, we do not support such potentially wide-ranging changes being delivered through secondary legislation and we believe that any future changes should be subject to proper parliamentary scrutiny.

Other issues

The need for the equitable burden of conservation was recognised by the Mixed Stock Working Group. There is currently an imbalance in that burden between the exploiters of the resource. In 2010, net fisheries accounted for over 45% of the retained catch, but only contributed 1.3% of the total funding raised by DSFBs for fishery management. As a specific example, the RACCE committee has visited both the River Dee, and Usan Salmon Fisheries Ltd. The Dee DSFB operates a policy of 100% catch and release and puts significant investment (both private and public funding) into the health of the river, with significant wider environmental benefits. However, recent work by Marine Scotland Science on the South Esk Fisheries Management Demonstration Project has shown conclusively that a significant proportion of the commercial catch at Usan, originated from the River Dee. Despite this exploitation, the Dee DSFB receives no contribution for fishery or conservation management from this mixed stock fishery.

Written submission from the Esk District Salmon Fishery Board

The Esk Board’s comments are limited to those sections of the Bill dealing with fisheries as there are no significant aquaculture developments within the Esk District

(i) Governance issues
We endorse the concepts of openness and good governance and therefore support the proposals incorporating:

- Codes of practice for good governance
- Public meetings and open Board Meetings
- Publishing Annual Reports and Accounts
- A formal complaints procedure

(ii) Monitoring and changes to orders

We would add that any decisions (orders) which might impact on the status of salmon stocks should be based on appropriate peer-reviewed scientific evidence. If such evidence is not available then the precautionary principle should apply. Monitoring requirements should be proportionate to the expertise and resources available to Boards and agreed in advance with Marine Science Scotland. As advisors to Ministers, Marine Science Scotland should support the task of monitoring with Boards. These points are consistent with evidence-based management which is strongly supported by the Esk Board.

(iii) Carcass tagging

We support the concept of carcass tagging for all salmon killed. A sequentially numbered system is essential to ensure full accountability.

(iv) Board funding;

Current inequalities in respect of the valuation of salmon fisheries should be addressed to ensure a more equitable funding regime for Boards. In particular, a system of assessment with a greater orientation towards catch would be fairer and ensure that those who take most fish contribute proportionately.

**Written submission from Andrew Graham-Stewart**

I have taken a close interest in, researched and written extensively about Scotland’s salmon netting industry for the last 20 years.

The provision within the Bill for an enabling power for Scottish Ministers to introduce a statutory carcass tagging system by regulations is welcome. Whether this is delivered via primary or secondary legislation, I believe that it is vital that it incorporates individually numbered and recorded tags in line with other parts of the UK.

Such a system is imperative if some anomalies associated with the netting industry are to be addressed (carcass tagging without numbers is no more than a marketing exercise):

1) Under-reporting of catches is widespread in the netting industry. This is exemplified in microcosm by the fact that the official catches (published by Scottish Government) show that the declared net and coble catch for the
Cromarty Firth was four salmon and 56 grilse in 2010 and eight salmon and 13 grilse in 2011. In both these years four netting stations, each with crews of three or more, were operating in the firth; in 2011 the average catch per station was just two salmon and three grilse – a pitiful return of half a fish per week for what is for some of them the best part of two months work. On the face of it the nets would appear to run at a considerable loss and yet year after year they continue to ply their trade. This situation is mirrored in other locations.

So far as I am aware there has never ever (since the system of catch returns was introduced in 1952) been a prosecution for falsifying a catch return. The authorities (notably FRS and their successors Marine Scotland) are strangely reluctant to investigate the discrepancies between netting effort (including labour costs) and the income from sales of the declared catch.

Carcass tagging with individual numbers would ensure far more accurate catch returns to Marine Scotland.

2) Carcass tagging with individual numbers will also help to curtail the laundering of fish from England, Wales and Ireland, all of which now operate numbered carcass tagging schemes. In particular there is a problem with spring salmon taken in English nets (which are permitted to kill sea trout but not salmon prior to June 1) being moved to and laundered through Scotland.

3) In addition numbered carcass tagging will make it much more difficult for illegally caught fish (poached in either the marine or freshwater) to find a ready market. This is an absolutely key conservation point. Poaching (a form of wildlife crime) will no longer be such an attractive proposition, given that the only way of procuring tags will be through a legal netting station. Furthermore procurators generally view existing salmon law as too complicated and difficult to achieve convictions on. Carcass tagging will simplify matters. If salmon or sea trout were being sold without a numbered tag, then there is no argument that an offence is being committed.

Usan Salmon submission (as published online by the RACCE Committee)

I note that Usan is advocating that responsibility for policing coastal netting stations be moved from Fishery Boards to the “Inshore Fisheries Team”. Leaving aside whether the latter would have the capacity to take on this responsibility, this proposal makes no sense as, in contrast to other fish stocks in inshore waters, salmon and sea trout migrate from and to freshwater and to separate the management of these species in freshwater from that in coastal waters is both naïve and contrary to the best conservation principles.

One can only assume that Usan are seeking to prevent scrutiny by Fishery Boards of what appears to be systematic breaches, at all three coastal districts in which the company currently operates, of the regulations (introduced for conservation reasons) requiring operators of fixed engine nets to lift the leaders (in other words – not be fishing) during the weekend close time between 6 pm on Fridays and 6 am on Mondays.
With Usan, failure to lift the leader at weekends often appears to be the norm rather than the exception. I am not aware of any evidence that coastal sea conditions have deteriorated significantly in the summer months in the last few years. Furthermore, it could be argued that Usan should invest in boats that are fit for purpose and able to cope with adverse weather, thus enabling them to operate in line with the regulations.

**Aquaculture**

With reference to the aquaculture sections of the Bill, I fully endorse the submissions of the Salmon and Trout Association and the Association of Salmon Fishery Boards.

**Written submission from the Highland Council**

The Highland Council welcomes the opportunity to respond to the call for views on the Aquaculture and Fisheries (Scotland) Bill. The Council contributed a full response to the previous Marine Scotland Consultation on proposals for the Bill.

The Council acknowledges the importance of the Scottish aquaculture industry in a Highland, Scottish and European context. In particular, it notes the Scottish Government aspiration of 50% expansion in Salmon production by 2020, as set out in the consultation on the Draft Marine Bill. In supporting the aquaculture industry in Highland, the Council also recognises that there may be legitimate environmental concerns regarding the on-going expansion of the industry. These include but are not limited to latent capacity held on sites that are unused. The impact of salmon farming on biodiversity within the environs of the sites, and the landscape impacts of developments which are continuing to increase in scale.

In commenting on the Bill as introduced, the Council is pleased to note that it finds the majority of the proposed legislative changes set out in the Bill as introduced to be broadly acceptable in as far as its interests are concerned. It is, however, disappointing that a number of the proposals set out in the consultation have not been carried forward into the Bill as introduced. There is no indication within the consultation analysis whether these aspects will be further considered and we comment on issues of concern in more detail below.

**Part 1 – Aquaculture**

**Chapter 1 – Fish Farm Management - Farm Management Areas**

The Council wishes to reiterate its comments regarding the setting of Farm Management Areas. The relationship between the Management Areas advocated by Marine Scotland and the Farm Management Areas as set out in the CoGP remains unclear. Many of the FMAs depicted within the CoGP are very small containing only one farm. This does not, provide for whole loch management.
The Council welcomes legislation proposed to make Farm Management Areas and Farm Management Plans mandatory. It is not, however felt that it is appropriate for these areas to be set and controlled by the industry. This would not in our view allow Local Authorities to effectively consider Farm Management Areas as part of a mitigation package when considering planning applications for Marine Fish Farms. The FMA could potentially change during the life of the site. The Council would favour the establishment of compulsory Farm Management Areas set along similar boundaries to those Management Areas currently set out by Marine Scotland. Once set these boundaries should be fixed to allow them to be effectively utilised in development management. However, it is also felt that wild fisheries interests should be included in the development of Farm Management Plans. We make this comment on the basis of consistent advice from Marine Scotland Science that maintaining sea lice numbers at the levels set within the CoGP may not prevent large numbers of sea lice being discharged from the site and having an impact on wild salmonid populations. In our experience there were considerably fewer differences of opinion between fish farmers and wild fisheries interest in those areas where Area Management Agreements had been set up under the guidance of the Tripartite Working Group. The Council long expressed the view that the AMA’s should be statutory, and we feel that our concerns in relation to the proposed process are consistent with that view.

Existing consents

In drafting the Bill the opportunity has not been taken to resolve the disquiet expressed by many stakeholders regarding the presence of undeveloped sea bed leases previously granted by the Crown Estate.

The Council had every expectation that the Review and Audit of pre April 2007 sites that has been “in process” by Scottish Government since 2007 would have dealt with the serious concerns regarding the presence of undeveloped sea bed leases previously granted by the Crown Estate. Our main concern is that the presence of existing undeveloped capacity forms a constraint to new development in many of Scotland’s sea lochs. For example, it is difficult to support developments for new shellfish farms in lochs where on paper at least there are existing consents for extensive salmon farms.

In practice the Review and Audit has compounded the problem. As part of the process Scottish Government issued a Permitted Development Order in February 2011 granting blanket planning permission for existing sites within named sea lochs. Almost two years later we continue to await vital, yet basic, information from Scottish Government such as the specific sites included in the order, and the site areas. In responding to the consultation the Council suggested that if such information was not available then the Permitted Development Order should be revoked. It has been suggested that this would not be possible as it would remove Planning Permissions and would be open to legal challenge. This response in itself suggests it must be know what has been granted by the order. It is difficult to fathom why Scottish Government is unable to furnish Local Authorities with the appropriate information.
Highland Council would urge Scottish Ministers to consider the role of the 2011 Permitted Development Order and to determine whether or not that Order was fit for purpose and if necessary seek to repeal the Order through the Aquaculture and Fisheries (Scotland) Bill. We consider that clarity regarding which existing developments should be entered into Local Authority Planning registers is vital in ensuring the sustainable development of the industry going forward.

**Time limiting of consents**

The consultation considered the issue of seeking to time limit consents for fish farms. The aquaculture industry has stated that to have a consent granted for a limited period reduces investor confidence. We have some difficulty in accepting that this is the case. If sites are operated in accordance with their planning permissions in compliance with the industry CoGP thereby minimising the impact on the receiving environment there should be no reason why time limited consents would not readily be renewed. In addition time limiting consents provides for the site to become a development opportunity if it is not used. The Council is of the view that over time the ability to time limit consents it would remove the number of dormant sites and latent capacity within the Scottish aquaculture industry.

**Chapter 2 – Fish Farming Equipment and Wellboats**

The Council welcomes the introduction of enabling legislation related to the implementation of a Scottish technical standard for cage construction. In addition to the stated provisions of regulations the Council is of the view that that there should be provision for cages to be fitted with a manufacturers plate along the lines of those required in the manufacture of boats. This would allow improved traceability. Any technical standard developed and supported by regulations should recognise that there are situations where square cages are preferable to circular ones and a maximum cage size should be specified.

**Part 4 - Shellfish**

**Protection of shellfish waters**

The Bill as introduced provides for the designation of shellfish water protected areas. The Council suggests that within these provisions there should be the specific ability to rule a shellfish harvesting area out of designation as a shellfish water protected area in the event that the designation would present a significant constraint to onshore economic development. For example the Shellfish designation may require additional sewage treatment infrastructure to upgrade discharges to the water body. If funds are not available to carry out this upgrade this may lead to developments not being able to proceed due to lack of infrastructure.

There is also a need for consistency in the definition of shellfish. This would avoid potential confusion and provide clarity on the licencing requirements and procedures to be followed for aquaculture development proposals. The Council has a specific concern in relation to the farming of sea urchins.
Echinoderms are specifically included within the definition of “shellfish” within the planning acts. They are however ruled out of the definition of shellfish proposed in line 12, page 43 of the Bill as introduced, as they are neither crustaceans nor molluscs.

Orders as to fisheries for shellfish

The point made above in relation to consistency in the definition of shellfish also applies in this section.

Written submission from Marine Concern

Introduction

The Scottish aquaculture industry's credentials have improved greatly during its 40 years of existence, however in order to continue its improvement and in order to overcome the advances versus problems due to its massive, by an order of magnitude in 20 years, expansion it still has to go further; unless this is achieved Scotland has the potential to face problems comparable with the early days of the industry, which is not something that Scotland should be proud of.

Currently the Scottish Parliament and Government appears to be transfixed on the concept that the term 'maximising sustainability' are two words that can comfortably sit together in the same context. The generally accepted understanding of sustainability is one of, - addressing the needs of today's generation without affecting the needs of future generations. In the marine environment our knowledge of ecosystem dynamics is inadequate and as such the Precautionary Principle must be applied when the effects and indeed accumulative effects are unknown or at best poorly understood. This has become even more important with the change in requirements for pollution 'foot-print', and pollutants released into the water column, more so when combined with the prolific expansion of an industry with little to no facility to assess accumulation or even magnification of unwanted by-products.

It is unfortunate that in nearly three years of the Marine (Scotland) Act 2010, the concept of 'real' and 'effective' spatial planning has not filtered down to those responsible. Currently it appears that those with planning powers know little or pay scant regard to the marine environment, especially to the longer term. It appears that the push for salmon farming will go ahead regardless of its surroundings and indeed other industries such as fishing and tourism. The Marine Act covers the management of seals, which generally results in the shooting of the seals. Whereas with proper spatial planning and the use of fully encompassing double skinned anti predator nets of a mesh size so as not to entrap other wildlife would effectively render shooting obsolete. Increasingly we are fed the term 'last resort', with reference to shooting whereas in effect without the use of true double net structures as mentioned above it is in fact a matter of 'first resort'.

Currently this government and its agencies appears hell-bent on promoting the used of acoustic deterrents, even though they are known to have an
adverse effect on cetaceans, they have even been recommended deployment in cetacean hot spots. The scientific research is far from conclusive as to the effectiveness of these acoustic deterrents for seals; much of the evidence is anecdotal from fish farm workers, visual surface accounts. With the exception of high up in a river system there is a dearth of robust evidence. The use of acoustic deterrents is another form of pollution with little benefit either to the industry or the environment. Depending upon the source type, i.e. the intensity from either acoustic deterrent devices (ADDs) or acoustic harassment devices (AHDs), and the local morphology and seabed type; sound propagation can affect an area up to 20 Kilometres from the point source.

**Fin Fish Aquaculture**

The Aquaculture and Fisheries Bill has the opportunity to address failings in the Marine Act process by including a containment method that would prevent many of the known problems currently seen in the farming of salmonids. Two methods are proposed the first; closed containment (floating and/or onshore), would almost eliminate predation, escapes and pollution (including genetic gene pool of wild salmonids). It could even generate further revenue as a source of fertiliser, therefore off-setting any additional cost.

The second, the fitting of effective, fully encompassing double layer anti-predator nets, a relative easy concept with the modern Polar Circle structures, especial when fitted with the well known to the industry, Froyer Ring. In order to avoid further criticism these supplementary nets should be of a mesh size so as not to trap additional wildlife. Such nets would have the ability to contain escapees and reduce other predator attacks such as that from the small percentage of seals that have become 'salmon specialists'.

Both methods might require a slight increase in extra manpower, but as that is being held as one of the industries most important assets that could be a win-win situation.

A reduction in fish stock density is seen as being potentially advantageous for several reasons; better welfare of the fish, reduced disease, and reduced sea lice infestations. All are of benefit to the industry and a secondary benefit to the environment as reduced dosing and treatments could result, with less toxic chemicals being released into the sea.

**Shellfish Aquaculture**

Generally shellfish farming is held as a less environmentally damaging activity than fin fish farming especially that of salmon production. That said, it has the potential in alter enclosed fiordic loch ecosystems; a matter of loch carrying capacity. Currently most farmed shellfish farming utilises species that filter feed, and most species are very efficient at doing just that. They feed on particulates, and that includes anything small enough to be caught, trapped and/or siphoned. These particulates include species lower down in the trophic levels (food chain) including fish larvae. Industrial scale shellfish farms have
the ability to prevent even alter the natural balance in relatively enclosed systems.

Netting used by most mussel farms causes by-catch, as the industry increases so does the death toll to surrounding species. As with the potential to alter contained loch systems by-catch also needs to be addressed.

**Poly-Culture**

Scotland has a massive resource available to it along its coastal fringe. In Europe Scotland' coastline length is second only to Norway, but even this massive resource can and arguably is being be miss-managed and abused. Polyculture has the ability to offset many issues identified with current methods of intensive fish farming. The introduction of polyculture could also be seen as an opportunity for further commercial growth, while at the same time in the case of algae production naturally cleaning up an industry that arguably currently holds 'bad neighbour' status.

**Penalties - Fines**

Much of the industry is self-regulated; self-regulation is known Worldwide not to work. Many accounts have been recorded in Scotland both through the Press and Courts of fish farming companies in breach of their guidelines/laws. In the huge Scottish marine area much of this abuse goes unnoticed, unrecorded. Remote, rural and marine locations combined with the Scottish Law requirement of corroboration makes for gaining evidence increasingly more difficult. During these times of austerity the enforcement agencies are increasingly left stranded, leaving an 'open' situation to any industry wanting or capable to exploit it.

In the past puny punishments mean re-offending, poor/no spot checks mean that few are actually caught. Independent, legal enforcement to the industry is a must, with fines large enough to ensure that even the most unscrupulous conform. In this light, powers must be available for instant access to installations, and penalties should include custodial sentences for the people responsible both 'hands-on' employees/contractors and management.

**Conclusion**

Even in the 21st Century we still have limited knowledge concerning the full effects of marine ecosystems. It is these very same ecosystems that provide for our various industries, including fisheries and tourism. Adverse alterations to these ecosystems can affect both our wellbeing and climate; effectively we are meddling in the dark. While these industries remained relatively small scale the adverse effects had also been relatively low-key; this has now altered big time and the effects have the potential to be magnified in specific locations.

Industry self-regulation does not work; independent checks must be compulsory. Much of this abuse goes unnoticed, unrecorded, especially in remote, rural and marine locations. This is a big profitable industry, fines must
be set at a scale that make industry officials and stakeholders aware, wary and abide with legislation.

Smaller scale, environmentally friendly, 'real' sustainable (not sustainable for the industry on a short time scale) industry is the only way to go for the longer term. Large scale intensive farming is problematic on many fronts, so much so that in the case of disease the industry has the potential to collapse as has been seen in regions such as Peru. If the Salmonid industry is to prosper then the sourcing of truly sustainable fish feed needs to be addressed, not adversely affecting Global fisheries and potentially causing famine in Third World Countries especially for what is generally seen as a luxury goods/food item.

Written submission from the River Tweed Commission

The River Tweed Commission welcomes the opportunity to comment on the draft bill.

The River Tweed Commission (RTC, formerly the River Tweed Commissioners) is charged under The Scotland Act 1998 (River Tweed) Order 2006 with the general preservation and increase of Salmon, Sea-trout, Trout and other freshwater fish in the River Tweed and its Tributaries, and in particular with the regulation of fisheries, the removal of nuisances and obstructions and the prevention of illegal fishing. The area of jurisdiction extends five miles out to sea and includes the coastline between Cockburnspath and Holy Island; it also includes all the waters that drain, or drain to some extent, to the sea in the Tweed District which are both in England and in Scotland. Powers under the above legislation are granted to the Commission to fulfil these duties. The RTC is not a Fishery Board although in many respects it is the equivalent of one for the Tweed District.

The RTC has been in discussion with the Association of Salmon Fishery Boards (ASFB) regarding its response to the draft bill and it strongly associates itself with the response made by the ASFB of which it is a member.

Whilst we understand that much of the proposed bill will not apply to the Commission or the Tweed District we nevertheless wish to comment on some of the detail.

Generally, the RTC is surprised that the draft includes proposals that were not consulted upon and does not contain other proposals that were included in the consultation.

The RTC itself is large and has 81 Commissioners representing proprietors, angling clubs and a wide cross section of the community with many interests mostly, of course, in fisheries. It meets four times a year and at its AGM all fisheries proprietors, not all of whom have a seat on Commission, are invited to come. It is a well attended meeting and is, for all intents and purposes, “public”. Whilst we do not oppose the principle of open meetings we would not like to conduct all our business in public. Indeed we believe such an approach
would be counter-productive because it would undermine the strongly collegiate decision making process, emanating from our constitution, that exists on the River. In common with other fishery boards, some of the issues that we deal with are sensitive and are therefore we think that it is best that these are dealt by Commission alone.

The RTC strongly supports powers to introduce carcass tagging for all Salmon that are sold. This should be on a national scale with individually numbered and recorded tags and in concert with the rest of the UK. Any system that falls short of this will not achieve the goal of preventing the sale of illegally taken fish. We further encourage a provision to make the purchase of illegally taken fish an offence.

With respect to Section 25, whilst we generally support the provision to monitor orders we believe that this should only be for orders made on the initiative of the boards themselves; further we do not think it is proportionate to make non-compliance a criminal offence.

The RTC is fortunate in that it manages a river with a large run of Salmon. As such it is a able to raise a significant assessment to fund its activities. The Tweed fisheries contribute great value to the local economy which was most recently estimated at £18m and provides almost 500 full time equivalent jobs. Other rivers are similarly important. We emphasise that is achieved at no cost to the Government or the tax payer. Generally we urge the Committee to consider supporting fishery boards, especially smaller ones, who manage a great national asset.

Written submission from Roc Sandford, Gometra

This bill represents a historic opportunity for the Scottish Government to put salmon aquaculture on a sustainable footing and to ensure its viability in the medium term. Currently salmon aquaculture is generating environmental externalities which place it in conflict with other users of the marine environment, are inexpedient for Scotland as a whole and are likely to be proved unlawful when subject to judicial review or when EU environmental legislation in incorporated into Scottish law, or when Scottish environmental and animal welfare law is properly enforced. The bill as drafted does not adequately address these issues, and risks developing into a continuing embarrassment for the industry and the Scottish Government, and an escalating disaster for those in the wild fisheries, angling and eco-tourism sectors, together with all those in the Scottish economy who depend on us.

Sea Lice

‘There is no evidence of an impact of lice from fish farms on wild salmon in Scotland’ (Marine Scotland Science 2010). Even a cursory review of the literature renders this statement acutely embarrassing (most recently see Krkosek 2012, Costello 2009, Ford 2008 and literature referenced therein), which is perhaps why the author has concealed her identity. The hidden premise or sleight of hand is that scientific evidence for causal mechanisms, if conducted outside Scotland, do not apply to Scotland, that the precautionary
principal has no application in Scotland, and international and domestic environmental and welfare legislation can be set at nought by Scotland.

The bill can be amended to address this problem by placing real time, disaggregated, independently audited sea lice data in the public domain, and setting an enforceable target of zero ovigerous lice year round, so as to address the impact of lice amplification from salmon farms on populations of wild salmonids and associated welfare abuse which amounts to systematic cruelty under welfare legislation. We believe that there is a regulatory blind spot which needs to be addressed so that sea lice, arguably the most damaging externality of salmon aquaculture, are properly regulated by a body (probably either Marine Scotland Science or Scottish Environmental Protection Agency) whose responsibilities are quantitative, transparent and accountable.

**Seals**

'Section 119 of the Marine (Scotland) Act 2010 states that Scottish Ministers must not grant a seal licence authorising the killing or taking of seals in a seal conservation area unless they are satisfied (a) that there is no satisfactory alternative way of achieving the purpose for which the licence is granted, and (b) that the killing or taking authorised by the licence will not be detrimental to the maintenance of the population of any species of seal at a favourable conservation status in their natural range (within the meaning of Article 1 (e) of the Habitats Directive). While the Scottish Government has come up with reasonably plausible arguments supported by the Sea Mammal Research Unit as to why the number of seals killed in the Western Isles will not be detrimental to the maintenance of the population of the two species, Scottish Ministers must also be satisfied that there is no satisfactory alternative way of achieving the purpose of the licence pursuant to section 119 (a). If we presume that Scottish Ministers have not acted unlawfully, then they must have satisfied themselves that acoustic deterrents, seal nets etc do not work in the Western Isles for the 30-odd farms concerned. It follows that if they don’t work there, there is no reason to suggest they will work anywhere else.' (Linley-Adams, 2012)

The bill can be amended to provide a) seal nets must be deployed as a condition of any consent because the issue and use of seal killing licences is otherwise unlawful, b) granted that seal nets are deployed, licences will not be issued to cull those species in decline or outside safe biological limits under the OSPAR and other conventions, or where granting of a licence is likely to give rise to welfare issues associated with wounding rather than killing, and the killing of lactating mothers where it is impossible to guarantee the killing of the pub.

**Cetaceans**

As part of the predator control plan Acoustic Deterrent Devices (ADDs) are routinely used by the aquaculture industry to harass and disturb seals. These are known to disturb and exclude cetaceans over massive areas of their natural range (E.g. Booth 2010 and papers cited therein). 'We would expect
disturbance, displacement, and behavioural change to occur’ in waters in which ADDs are deployed. (SNH, 2012). The Conservation (Natural Habitats) Regulation 1994 make it an offence to disturb any cetacean without a licence in accordance with the Habitats Directive.

While we are not aware that this has been tested at law, it is our view that it is probable that these licences are being issued unlawfully given that ADDs would be rendered unnecessary by proper predator exclusion nets and these should therefore be made a requirement by the bill of any aquaculture consent within Scottish waters. This issue must be properly addressed in the bill.

**Landscape**

Salmon aquaculture is the principal driver of the dewilding of the Scottish West Coast. This is subject to a multiplier effect when evidence of associated environmental degradation seeps through to Scotland’s populace and visitors, and salmon farms are coming to be seen as running environmental sores in otherwise pristine landscapes, thus causing disturbance, displacement and exclusion of the visitors on which our economy depends. For example, the seas of the Staffa Archipelago, long canvassed as a Unesco World Heritage site, are facing the rapid proliferation of salmon farms which undermines other economic activities within the region and the employment they generate, at modest and uncertain benefit to the economy of the Archipelago proper. The bill must be amended to address this issue.

**Navigation & Crowding out of wild fisheries**

Salmon Farms are known to unlawfully impede the public right to navigate and the economic viability of wild fisheries interests. This must be addressed in the bill.

**Employment**

Sea Cage Salmon Production currently directly employs about 1000 people Scotland wide according to unaudited, industry supplied figures published by the Scottish Government. Employment fell last year by 5% and the industry has not created a job since 1986, largely due to automation and the substitution of capital for labour. The bill should place a requirement on the Scottish Government to commission an independent audit of the socio-economic costs and benefits of salmon aquaculture, both in terms of employment destroyed in wild fisheries, angling and tourism sectors, and jobs created in the salmon aquaculture sector.

**Sustainability**

The bill should be amended to bring Salmon Aquaculture in line with the Scottish Government's sustainability policies in a properly transparent and verifiable fashion, something which it patently fails to do. To give one example, Scottish farmed salmon feed is sourced from unsustainable wild fisheries world wide.
Disease

The bill should provide that diseased salmon should not enter the human food chain, as is present practice industry wide.

Toxicity

Continuing fears are raised over elevated levels of toxins in farmed salmon and associated birth defects, elevated cancer risk, diabetes and behavioural change in consumers of even small amounts of Scottish farmed salmon (for instance see the considerable literature surrounding Hites 2004, and for an example of recent concerns which cites various recent papers, Crinnion 2011). The bill should provide for the routine analysis and timely publication of toxin levels in Scottish farmed salmon for the proper protection of the consuming public. Consumption advisories should be adjusted to make it clear that the benefits of oily fish consumption can be obtained while avoiding the toxicity issues surrounding Scottish farmed salmon by eating other sustainably fished oily fish species such as mackerel.

Incorporation of EU Environmental Legislation into Scottish Law

This is a matter of urgency. Scotland is developing a reputation as the dirty mature person of Europe when it comes to enforcement of international environmental legislation and its incorporation into domestic law, a reputation we can ill afford given the extent to which our economic interests are bound up in public perception of a pristine marine environment and our iconic wild landscapes. This bill must be tested rigorously in this respect and amended where necessary.

Conclusion

The bill as drafted is clearly lobbyist rather than evidence based. A parallel with An Inspector Calls (Priestley 1945) is irresistible: salmon aquaculture’s cast-list of useful idiots, whose activities mesh to produce an outcome nobody can reasonably either deny or desire, include RSPCA Freedom Foods, Crown Estate, Scottish Natural Heritage, Marine Scotland, Scottish Environmental Protection Agency, Local Authorities and Marine Scotland. Some of these bodies, doubtless, are left limited room for manoeuvre by the Scottish Government, themselves apparently beholden to the Scottish Salmon Producers Organisation, by ‘revolting door’, concerted PR, lobbying and whatever hidden means may be employed to generate an environmental tragedy of these proportions for Scotland’s marine environment, of benefit only to a small group of insiders and at massive cost to the Scottish public.

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Scottish Government Annual Aquaculture Production Surveys, 2011 and preceding years.


**Written submission from the Royal Society of Edinburgh (RSE)**

**Summary**

- The RSE supports the view that aquaculture has a fundamental role to play in meeting the key objective of food security. We welcome the trend towards servicing the increased demand for aquaculture feed while decreasing the level of fishmeal included in feed and substituting it with plant materials. Scotland must encourage sustainable fishing practices elsewhere. It is crucial therefore that efforts to expand Scottish fin-fish farming are achieved by reducing the proportion of fishmeal used still further.

- Scotland is a global leader in aquaculture and continues to require a strong research base. Whilst welcoming industry sponsored research into issues such as a vaccine for sealice, the balance of publicly-funded research should be given further consideration in light of the importance of aquaculture to food security.

- There is an apparent imbalance between the aquaculture section of the Bill and the fisheries section in terms of controls, the former seeming to receive more attention than the latter. We are also struck by the apparent lack of
focus on the need for high quality and reliable scientific data pertaining to both sectors that should underpin sound policy development.

- We welcome the stated policy aim in the documentation accompanying the Bill that FMAg and FMS be developed according to the needs and circumstances of the particular farms. It should be recognised on the face of the Bill that FMAg and FMS are production plans, which must necessarily be flexible to meet the needs of different businesses and the day-to-day requirements of farm management. The detail of the plan naturally varies with the business and its requirements.

- We support measures to minimise escapes of farmed fish. We believe that the purposes in section 2 of the Bill for which fish may be sampled should be firmly focused on what appears to be the primary motivation of the provision in the Bill – which is to assist in investigations of escaped fish and the risk of impact of escapes from farms on stocks of fish other than those on farms.

- We are concerned that the only consideration mentioned throughout chapter 3 on commercially damaging species is the economic or commercial impact of the 'other species' on the fish farm. There is no mention of whether or not the species having an adverse economic or commercial impact is, for instance, of conservation or ecological importance. It should be made explicit that factors other than simply the commercial operation of the farm will be taken into account.

- There are no matters of principle about charging for services. This procedure is well accepted and in place in a range of properly established government agencies. However, each new ‘service’ for which a charging regime is proposed should be subject to consultation and full Scottish Parliamentary scrutiny through regulations which are subject to the affirmative procedure.

**Background**

The Royal Society of Edinburgh (RSE), Scotland’s National Academy, is pleased to respond to the Scottish Parliament Rural Affairs, Climate Change and Environment Committee’s call for views on the Aquaculture and Fisheries (Scotland) Bill. These comments have been compiled with the assistance of a number of expert Fellows of the RSE.

This response begins by commenting on a number of broader issues associated with aquaculture in Scotland. While these comments are not directly related to the scrutiny of the present Bill, we believe they will provide Committee members with important contextual information about the operation of the aquaculture industry. The response then addresses those specific parts of the Bill where the RSE has comments to make.
Aquaculture in Scotland

The RSE supports the view that aquaculture has a fundamental role to play in meeting the key objective of food security. With the pressures on wild fish stocks, the unsustainable approach to their exploitation, and growing global demand for fish as a source of high quality protein, the UK, and the world, will become increasingly reliant on aquaculture to meet demand.

The value of the aquaculture industry to the Scottish economy is clearly stated in the documentation accompanying the Bill. It dominates food exports, has an excellent international reputation, and is significant for employment in less favoured areas. Available investment for expansion has increased in line with a dramatic increase in demand for and price of salmon.

The stated primary objective of the legislative proposals is to ensure that farmed and wild fisheries continue to be managed effectively, maximising their combined contributions to supporting sustainable economic growth with due regard to the wider marine environment. In Scotland, fin-fish farming (primarily Salmon farming) depends on the domestic production of aquafeeds, based in part on imported raw materials. The fishmeal and fish oil industry is international in nature and supplies the entire range of domesticated animals, including farmed fish. The marine component of diets used in Scotland is obtained from such sources.

The RSE welcomes the trend towards servicing the increased demand for aquaculture feed while decreasing the level of fishmeal included in feed and substituting it with plant materials. Indeed, with a finite amount of fishmeal available, the IFFO (the International Fishmeal and Fish Oil Organisation) has developed a certification programme to demonstrate the sustainability of its operations. Scotland must encourage sustainable fishing practices elsewhere. It is therefore crucial that efforts to expand Scottish fin-fish farming are achieved by reducing the proportion of fishmeal used still further, and by importing fish meal from certified sustainable industrial fisheries, or from local fishmeal production within the EU under the EU’s existing strict legal controls on persistent organic pollutants (POPs). Scotland had led the way in research and development focused on the substitution of marine ingredients with high quality terrestrial ingredients and it should be recognised that the Scottish salmon industry is now at the cusp of being a net fish protein producer.

With an increased reliance on aquaculture, the issue of the vulnerability of stocks to disease assumes greater importance. Scotland is a global leader in aquaculture and continues to require a strong research base. The funding provided for research in this sector, for example the projects supported through the research institutions and funding bodies such as the Scottish Aquaculture Research Forum (SARF), is welcome, particularly at a time when funding levels elsewhere in the UK, through DEFRA, have declined significantly. However, the levels of spend continue to be modest compared to funding for research in agriculture. Whilst welcoming industry sponsored research into issues such as a vaccine for sealice, and the promotion of research to address industry needs through the MoU on Aquaculture signed by the Scottish and Norwegian Governments, the balance of publicly-funded
research should be given further consideration in light of the importance of aquaculture to food security.

**Specific comments on the contents of the Bill**

There is an apparent imbalance between the aquaculture section of the Bill and the fisheries section in terms of controls, the former seeming to receive more attention than the latter. We are also struck by the apparent lack of focus on the need for high quality and reliable scientific data pertaining to both sectors that should underpin sound policy development. In both cases, policy development should be evidence based.

**Part 1: Aquaculture**

**Chapter 1:**

**Fish farm management agreements and statements**

The Farm Management Area Approach (FMA) and Farm Management Agreements (FMAg) have been fundamental to the development of Scottish salmon farming and have allowed the aquaculture industry to develop effective area management approaches and biosecurity systems. The introduction of Farm Management Statements (FMS) has embedded the FMA approach in single operator areas. We welcome the fact that the vast majority of operators are voluntarily signed-up to either a FMAg or FMS and we support making it a legal requirement for all marine finfish farm operators to operate under the terms of a FMA or FMS. This will help ensure that the industry adheres to the latest and highest environmental and husbandry standards.

We welcome the stated policy aim in the documentation accompanying the Bill that FMAg and FMS be developed according to the needs and circumstances of the particular farms. It should be recognised on the face of the Bill that FMAg and FMS are production plans, which must necessarily be flexible to meet the needs of different businesses and the day-to-day requirements of farm management. The point of statutory assessment is therefore the requirement for an FMAg or FMS to be in place not for a detail-by-detail regulatory approval of the FMA or FMAg itself. The detail of the plan naturally varies with the business and its requirements.

**Escapes and obtaining samples from fish farms**

The documentation accompanying the Bill indicates that there is evidence that escapes of farm fish are generally declining through increased awareness, significant investment in new equipment by industry and the implementation of best practice training on containment. These ongoing developments, coupled with the proposal to introduce a Scottish Technical Standard, are to be welcomed and we support measures to minimise escapes even further.

Section 2 of the Bill makes provision to enhance the investigation powers currently available to inspectors and to provide inspectors with additional
powers to take or require samples of fish from any fish farm in Scotland. We believe that the purposes for which fish may be sampled should be firmly focused on what appears to be the primary motivation of the provision in the Bill – which is to assist in investigations of escaped fish and the risk of impact of escapes from farms on stocks of fish other than those on farms. Care must be taken in respect to making provision for purposes that go beyond this e.g. research. Purposes such as this may give rise to human rights, legal ownership, intellectual property, and commercial competition considerations for businesses both within and beyond fish farming. (For example, details of genetic breeding lines are clearly highly important commercially restricted information for individual breeding companies.)

In relation to the use of forensic tracing as a means of determining the origin of escaped farm salmon in Scotland, this requires further research, including field-testing, before such a system can be introduced which inspires the confidence of all key stakeholders.

On a point of detail, in this section of the Bill there is reference to “fish, or material from fish”. This should be corrected to the biologically precise “fish, or tissues from fish”.

Chapter 2:

Technical requirements for equipment used in fish farming

Section 3 of the Bill relates to the development of Scottish Technical Standards pertaining to improved containment, which is being taken forward by a joint industry and Scottish Government group. The section raises no issues of fundamental principle but there are two important technical aspects which need to be addressed:

a) The reference to ‘technical requirements’ in section 3(1)(a) and elsewhere should be replaced by ‘technical standards’, which is the appropriate point of focus for regulatory control. We note that ‘technical standards’ is the terminology used in the policy memorandum to the Bill.

b) The reference to ‘-- for equipment’ in paragraph 3(1)(a) is too all-embracing and not consistent with the approach to developing standards. It should be replaced by something like ‘---- for specified equipment’. This would then properly reflect the Scottish Technical Standards approach.

Wellboats

The industry recognises the importance of appropriate management of the biosecurity requirements associated with the transportation and transfer of fish, including the use of wellboats. The Code of Good Practice details a cleaning and decontamination regime for wellboats. We welcome the Bill’s provisions that would enable Scottish Ministers to introduce additional requirements in relation to the control and monitoring of the operations of
wellboats in Scotland as a means of minimising the risk of the spread of parasites, pathogens or diseases.

We note that section 4 defines “wellboat” as comprising “a vessel that contains a tank or well for holding water...” As stated, this definition would seem to include not only conventional wellboats but almost all small workboats used on fish farms. The Committee should investigate whether this is intended as it could render fish farms almost inoperable depending on the nature of any Scottish Ministerial provision made for the control and monitoring of wellboat operations.

Chapter 3:

Commercially damaging species

Commercially damaging species are defined within the Bill as those that, “if not controlled, would be likely to have significant adverse impact on the economic or commercial interests of a person who carries on a business of fish farming or shellfish farming, and is itself of little or no commercial value”.

We are concerned that the only consideration mentioned throughout this chapter is the economic or commercial impact of the ‘other species’ on the fish farm. There is no mention of whether or not the species having an adverse economic or commercial impact is, for instance, of conservation or ecological importance. As it stands, the Bill would appear to give Ministers the power to licence control measures against, for instance, fish or shellfish predators without any consideration of their wider role or importance in the ecosystem or environment. It should be made explicit that factors other than simply the commercial operation of the farm will be taken into account.

Part 2: Salmon and freshwater fisheries

Enhancing management of salmon fisheries

There is little in this Part of the Bill that could be objected to. We would, however, like to make the following points.

a) Section 20 of the Bill inserts new sections relating to governance and accountability into the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. In addition to the provisions in 46E (3) that require a district salmon fishery board to ensure that the register of members’ relevant financial interests is made available for public inspection, there would be substantial public and community benefit from annual publication of a list of salmon fisheries owners and occupiers in Scotland. This would increase transparency in the system. This is a topic which the Land Reform Review Group may seek to address.

b) The Bill in Section 24(2)(a) “require a person having rights in a salmon fishery or freshwater fishery to provide the Scottish Ministers with such information relating to the fishery as they may reasonably expect”.

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However, on the face of the Bill there should be a requirement for such persons to provide information on the fishing effort in the rod and line fishery. The absence of this information is drawn attention to in Marine Scotland’s annual salmon fishery statistics. It is difficult to fully interpret the catch statistics without the fishing effort data. In this regard the statistics for England and Wales are more complete compared to those available in Scotland.

c) The annual salmon fishery statistics show that in 2011, 73% of the annual salmon rod catch was released. Given the widespread adoption of catch and release practices across District Salmon Fishery Boards, consideration should be given to the introduction of measures to record multiple catching of the same fish. Without this, the rigour of the catch statistics as a conservation tool is eroded.

d) The proposal to introduce a carcass tagging scheme for wild caught salmon offered for sale to replace the current voluntary scheme is one which we welcome. It should strengthen traceability and support the application for protected food name for Scottish wild salmon currently being considered by the European Commission. We welcome the fact that further consultation with stakeholders is being undertaken to ensure any scheme does not impose a disproportionate financial burden on small businesses.

Part 5: Miscellaneous

Charging

There are no matters of principle about charging for services, other than some potential concerns about interference in the commercial market for service provision. This procedure is well accepted and in place in a range of properly established government agencies. However, each new ‘service’ for which a charging regime is proposed should be subject to consultation and full Scottish Parliamentary scrutiny through regulations which are subject to the affirmative procedure.

Fixed Penalty Notices

We are becoming increasingly concerned that Fixed Penalty Notices (FPNs) are being introduced widely across a vast range of regulatory controls without proper legal or financial justification. There is a concern that FPNs will lead to an erosion of the professional rigour of the process of legal evaluation of non-compliance. There is a need for the Scottish Government to address public concern on this matter and to publish clear information and ‘performance statistics’ for regulatory controls to which FPNs apply.

Written submission from the SaveSeilSound Campaign Group

In our response to the Consultation at the pre-Bill stage we included the following comment,
“It is time for SG (the Scottish Government) to accept what the industry already knows, that fish farming damages the environment. The challenge for those who wish to secure a future for the industry in the longer term is to minimise that damage. The present consultation represents a start, but a number of important issues are missing.”

Regrettably it now seems that we were wrong to concede that there was even a start, as a number of major issues that were canvassed before, some of which received an overwhelming level of support from commenters from outside the industry, have disappeared without trace. This is extremely disheartening for those such as the active contributors to our group, who put a lot of hard work into our submission with the sole aim of helping Scottish Government in what appeared to be an attempt to provide some much-needed protection for our environment. One is left with the disturbing impression that SG have not acted in good faith in inviting comments on topics on which it has had no intention of legislating. What is left in the draft Bill is so limited that there seems little point in engaging in further “consultation”. However in the hope that even at this stage some of these issues can be resuscitated we do offer further comments in relation to fin-fish aquaculture, the area which is of most concern to our supporters.

**Power to cancel unused consents**

It seemed to us perfectly sensible for SG to have this power, subject to some obvious safeguards which have been discussed before. No reason is given for this proposal being dropped in its entirety and we are left wondering if SG has given in to threats from some of the companies holding these consents to challenge the measure on grounds based on the European Convention on Human Rights if introduced. This could arise as a result of the combination of two factors, (one) the transfer of decision-making from the Crown Estate to the local authorities and (two) the change in practice by the Crown Estate, who now grant long term, renewable and freely transferable leases of the seabed, rather than non-transferrable ones for limited terms. We comment on these aspects in turn.

Transferring decision-making was done for the best of reasons. In a democracy it was absurd that an unelected body of London-based commissioners could decide to confer exclusive rights to areas of seabed without external scrutiny. In doing so they of course denied to the general public our “inalienable” rights to use the surface of the sea for leisure and recreation as well as for navigation and fishing, but that was of no concern when money could be made for the Crown.

Subsequent experience has shown that in practice the transfer was not properly thought through. There is now a regulatory mish-mash, with some matters, such as impacts on the local economy of a proposal, the responsibility of the local authority while others stay with central government bodies, for example pollution stays with SEPA via the CAR licence system and science stays with Marine Scotland. One vital matter, the impact of sea-lice on wild fish, seems to be the responsibility of no-one in particular but perhaps lands on the local authority by default.
We have great sympathy with the planning officers in the four or five local authorities affected, as they have to wrestle with a totally new concept of offshore planning with no additional resources.

The change from leases of ten years to longer term ones was unheralded and undebated within government. There was very good reason for the time-limiting of the leases, the intention being that at the end of the term the operation would be moved and the seabed allowed to recover. This would have been feasible in the early years, when farms were very small, locally-owned outfits, although in practice it never happened. There is no good science for abandoning the idea, rather government should have grasped the nettle and enforced rotation. Instead the Crown Estate decided to entrench the practice of renewing leases on the same sites by deciding to grant longer term ones.

The effect of these changes, taken together, is that the operators of the present generation of large-scale industrial “farms” will start claiming that their leases are in effect rights of property and that accordingly any restriction would be expropriation. These operators, all of them owned by international shareholders and controlled from locations as diverse as Norway, Poland and Kazakhstan are sophisticated, well-funded and well-advised entities. It has to be assumed that they are more interested in making a profit than in caring for the Scottish environment.

The Committee should ask the Minister if this potential legal threat is the reason that this provision has been dropped. If so we suggest that steps be taken to avoid it becoming a reality, rather than that the issue should simply be ducked.

**Power to restrict permitted biomass**

Exactly the same “expropriation” argument may be open here as well.

Evidence has recently come into the public domain under FOI, having been known within SEPA for years, that a substantial number of fish farms have been failing to meet pollution standards. Members of the Committee should ask SEPA to provide full information about how it deals with these failings, whether by requesting voluntary reductions in biomass, withdrawing licences or howsoever. On 31 October we requested information from the Crown Office about the number of cases referred to it by SEPA and await the response, which I will forward on receipt.

**Sealice, Mortality, Disease and Biosecurity**

Those of us learning about the intricacies of the regulation of fin-fish farming have been very surprised to learn that sea-lice are not technically regarded by SEPA as pollution and thus they are not something SEPA tries to regulate. Their concerns are limited to the quantities of organic fish waste, uneaten foodstuffs, poisonous metals and the pesticides used to kill sea-lice. To lay-people like ourselves and perhaps to some members of the Committee this may seem odd, as it is known that plumes of sea-lice larvae are released from
fish farms, travelling for many miles in the fast tidal streams along our coasts and surviving for weeks in their search for a host fish.

Even more surprising is that the other agencies of SG, Marine Scotland and SNH, only concern themselves with the effects of sea-lice on the fish actually caged in the farms and will only take action to limit the effects of lice on those fish. The wild salmon and sea trout passing by get no protection. This is wrong and can be corrected by a simple legislative change.

On reporting sea-lice, mortalities and disease the response from Marine Scotland that this should be done by a voluntary system or under some secondary legislation is quite inadequate. The Norwegians found this to their cost and have introduced an effective system of near real-time reporting, as former Environment Minister Stewart Stevenson found when he discussed the problem with his counterpart in Norway, seen on the BBC’s “Fishy Business” documentary. The Committee should ask him to inform them about his impressions from his visit.

**Power to kill non-commercial native species**

When I circulated our comments on the pre-Bill consultation in draft form some of our members could not believe that this wording was correct and asked why a native species should be wiped out to assist a commercial operator? The wording was of course correct and it is sad that this has survived into the draft Bill. Admittedly only a group of mussels is in the sights just now, but this is a bad principle to establish.

**Conclusion**

We are aware that much of the foregoing has been excluded from the Bill as drafted. The pre-Bill Consultation was already a seriously limited piece of work, making no reference to several major issues of public concern, such as seal-shooting and the adverse impacts of acoustic scaring devices on marine mammals. One is forced to conclude that lobbying by a powerful industry enjoying the ear of government, rather than proper concern for our environment, may be the cause. Much of Scotland bears the scars left behind by earlier industries in an age when regulation was non-existent and we carry the cost of this today. The richness of our coastal heritage is a major national asset which should not be lost to serve the short-term interests of multi-nationals, who ironically trade on the healthy reputation of Scotland’s wild fauna the destruction of which is often a by-product of their efforts.

**Written submission from the Scottish Environment Protection Agency (SEPA)**

Thank you for providing the Scottish Environment Protection Agency (SEPA) with the opportunity to provide Written Evidence with regard to the above Bill. SEPA welcomes the draft Aquaculture and Fisheries Bill and accompanying documentation and has the following comments on these:
The consultation on proposals for the Aquaculture and Fisheries Bill discussed a number of major areas of particular interest to SEPA. These relate particularly to unused consents, biomass control and the regulation of well-boats. Following discussions with a number of interested parties, SEPA is of the opinion that the former two issues can be satisfactorily dealt with using existing legislative provisions. The issues highlighted by SEPA relating to well-boats appear to remain outstanding and are not addressed by the provisions of the Bill.

The main concerns raised by SEPA around the issue of well-boats relate to the current arrangements whereby release of medicine residues from cages at fish farm premises are regulated by SEPA under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 but releases of the same residues from well-boats at or around fish farm premises are regulated by Marine Scotland under the Marine (Scotland) Act 2010. These arrangements pose a number of significant problems with regard to regulation and enforcement but are also unnecessarily bureaucratic, costly and burdensome on the aquaculture industry.

The difficulties with regulation and enforcement stem from the problems that either regulator may have in taking action where a breach of the conditions relating to medicine residue releases set out in permits has occurred but there is a lack of clarity over how such releases may have been made. For example, the collection of evidence by inspectors under the powers provided under either the Water Environment (Controlled Activities) (Scotland) Regulations 2011 or the Marine (Scotland) Act 2010 may not be admissible under proceedings taken under the alternative regime making enforcement action more difficult, in what is an already complex regulatory arena.

As far as bureaucracy, administrative burden and costs are concerned, the current approach requires farm operators to have two licences in place for what is essentially the same activity – releasing medicine residues following the treatment of fish.

A Marine Licence for well-boat releases at fish farms costs in excess of £1000 and requires renewal after 1 or 3 years. When issued, the licence contains exactly the same conditions limiting releases from the well-boat as SEPA has derived for cage based releases. Thus fish farm operators are paying for an additional licence and application process with associated consultations and related processes for a permit to undertake an activity which in most cases they are already licensed to undertake under the Water Environment (Controlled Activities) (Scotland) Regulations 2011. The only difference being that the additional licence allows the flexibility of using vessel to undertake the treatment.

The authorisation of such releases under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 could be done as an “administrative” variation to existing licences for a nominal fee. Once integrated into the licence such variations essentially last in perpetuity, avoiding the need for a costly re-application, unless the operator seeks further variation or SEPA chooses to change such licence conditions as a result of periodic review.
There is however currently a legislative impediment to SEPA authorising releases from well-boats as activities requiring authorisation under the Marine (Scotland) Act 2010 are specifically excluded from control under the Water Environment (Controlled Activities) (Scotland) Regulations 2011.

The change in legislation required to bring licensing of well-boats within the scope of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 could be achieved through a change to the definition of “licensable activities” set out in the Marine (Scotland) Act 2010 – by amending section 21. A change in the definition of licensable activities could be achieved by Order, (s21 of the Marine Act makes specific provision for this) or by an amendment included in the Aquaculture and Fisheries (Scotland) Act. In either case, the result would be the occlusion of a legislative and enforcement gap, and a simplification of the regulatory landscape and reduction in costs for operators working in the aquaculture sector.

As for the provisions for well-boats that are discussed in the Bill, SEPA is supportive of improved engineering and equipment to reduce the possibility of disease and parasite transmission and allow the monitoring of the activities of these vessels.

A number of further issues were detailed in the Bill consultation that are less directly within SEPA’s role but are nonetheless of interest to the Agency. These include the publication of sea louse data. Although the publication of sea louse data does not feature in the Bill, SEPA retains the view expressed in our consultation response that sea louse data from fish farms should be published, on a site by site basis in as near to real time as practicable. There are various reasons for our belief that this is the correct approach.

There is considerable discussion and anecdotal evidence around the issue of resistance developing in sea lice to some of the products used to deal with them. Clinical decisions as to the appropriate treatment to use on any given occasion should be informed by an awareness of which treatments may or may not have been effective in the vicinity of the farm where treatment is proposed. This can be ascertained by bioassay – testing the sensitivity of the lice on the farm to the available products but also can be informed by the effectiveness of recent treatments undertaken on other sites in the same area or waterbody. Reasonable communication takes place between some but by no means all operators, so having information on the effectiveness of treatments available publically would make treatment decisions easier.

As well as clear clinical reasons, there is a philosophical disconnect in terms of public interest where sea louse data is not published. Sea louse infestations on farmed fish are dissimilar to routine diseases or parasite infestations in terrestrial animals because unlike these afflictions, the presence of lice on farmed salmon is almost ubiquitous and there is a strong likelihood that the sea lice arising from farmed fish may impact upon the interests of others – for example, those who own or enjoy Scotland’s wild salmonid fisheries. In a general sense, in most other areas and sectors, the impacts of those who benefit from the use of the Scottish environment and whose practices may impinge upon the interests of others are exposed to
public scrutiny. There seems to be no coherent reason why sea louse data should be treated any differently. Further, most of the companies operating in Scotland also operate under regimes in foreign countries where publication of such data is routinely required. SEPA therefore continues to support the publication of near real time sea louse data and considers that the lack of proposals in the Bill to address this issue is a significant omission.

SEPA would also support a reporting requirement relating to the numbers of fish mortalities on a farm-by-farm basis. This would allow the FHI to monitor patterns of mortality and respond appropriately.

The sharing of information on fish health issues is an important element in ensuring that sister regulatory agencies work together cooperatively. This might be facilitated either by legislative provisions or through policy development and close liaison between relevant agencies.

We note and welcome, in the Explanatory Notes, as part of the Financial Memorandum at Part 4 on Shellfish, under the Protection of shellfish waters, at paras 318-319, the proposals to continue to protect water quality in designated shellfish waters and to create a legislative framework that enables the continued designation of shellfish water protected areas following the repeal of the Shellfish Waters Directive in 2013. We also note and welcome the proposal at para 322 to align the process of designation and de-designation of shellfish waters with the RBMP timescale (i.e. every 6 years) and to set up a working group to take forward a range of supporting actions.

SEPA hopes the comments above assist in the discussions around the Aquaculture and Fisheries (Scotland) Bill and is content to provide further information, input and clarification as required either by correspondence or before the Rural Affairs, Climate Change and Environment Committee on 5 December.

As a public body committed to openness and transparency, SEPA feels it is appropriate that this response be placed on the public record.

**Written submission from the Scottish Natural Heritage Agency (SNH)**

SNH is the Government agency charged with the conservation and enhancement of Scotland’s habitats, wildlife and landscapes, with facilitating their enjoyment by the public and with increasing the general level of understanding about this resource. Its statutory purposes also include ensuring that the natural heritage is used sustainably.

We welcome the provisions of the Bill, which address a number of aquaculture and fisheries management issues that are of direct interest to SNH. SNH remains supportive of both sectors. We welcome measures geared towards the sustainable management of the aquaculture sector and the good governance of our fish and fisheries resources.

Two of the key themes of the recent consultation were transparency and accountability in the ways in which the aquaculture industry and fishery
managers (particularly District Salmon Fishery Boards) operate. In our view better regulation, transparency and good governance will enhance the reputation of these important industries, both nationally and internationally.

**Part 1. Aquaculture**

We support the measures described in Chapter 1 of the Bill to make the currently non-statutory Farm Management Agreements statutory. This measure will help co-ordinate management of sea lice numbers between farms to the benefit of farmed salmon and the water environment. The need for single operators to provide a Farm Management Statement is also a step forward since it lets other water users know what management is underway.

Section 1 of the Bill requires Farm Management Statements to reflect (so far as possible) the recommendations in the industry Code of Good Practice. That CoGP makes no reference to sea lice management in relation to wild salmonids, but only in relation to farmed stock. We can see advantages in measures that would integrate the management of farmed and wild fisheries, especially with the advent of marine planning and the development of tools such as the risk/sensitivity model commissioned by Marine Scotland and being developed by the Rivers and Fisheries Trusts of Scotland [RAFTS]. That tool will differentiate between rivers by their fish production, sensitivity, conservation value and risk of impact. That is important from a natural heritage perspective because of the high conservation value of wild salmonids themselves. It also would better reflect the role that wild fish play in the ecology of other species of high conservation value such as fresh water pearl mussels.

We support the inclusion of Section 2 of the Bill which amends the Aquaculture & Fisheries Act 2007 to address the issue of fish farm escapes. The issue of escapes and genetic introgression with wild Atlantic salmon has been a source of concern for many years, although the scale of this issue has never been fully quantified. These powers (to obtain samples of fish from fish farms for tracing purposes), and those proposed in Chapter 2 of the Bill relating to the adoption of strict technical standards for containment structures, will significantly increase confidence in this element of fish farm biosecurity.

**Commercially damaging species**

SNH supports this section of the Bill. The provisions detailed in Sections 8-19 reflect those recently included within the Wildlife & Countryside Act 1981 (as amended) to control non-native species. These provisions, whilst similar in terms of the introduction of control agreements, control orders and emergency action notices, are not identical. One area which may bear greater scrutiny is Section 15. This section sets out the provisions relating to emergency action notices and allows for an appeal to be made. We note that allowing for an appeal process may reduce capacity for rapid action to be taken to deal with a new and sudden outbreak.
Part 2. Salmon fisheries

Whilst the Bill does not reform the way that fish and fisheries are managed in Scotland, it promotes greater openness and accountability in the way in which District Salmon Fishery Boards operate. SNH is fully supportive of this.

Section 23 of the Bill providing Scottish Ministers with the powers to take fish or samples of wild fish for tracing purposes or for research to inform management at, both a local and national level, is sensible and reasonable. SNH supports this accordingly. It is unclear in the Bill text whether the term ‘fishery’ also includes hatcheries run by DSFBs or other fishery interests for re-stocking purposes. In our view it should.

The Bill also provides Scottish Ministers with the powers to manage salmon fisheries by allowing them to amend close times, estuary limits and other regulations by their own hand. These are detailed in Section 27 of the Bill. We agree that this is both a sensible and necessary power for Scottish Ministers to have and thereby support its inclusion.

Carcass tagging, introduced in Section 22, is a tool which is widely used elsewhere to measure and control Atlantic salmon exploitation. It is seen as an effective tool in tackling the illegal trade of rod-caught salmon, where traceability is a key issue. The precise detail of how this provision will be delivered will be covered in a separate regulation. We fully support this element of the Bill.

Consenting and licensing the introduction of fish into inland waters was a key feature of the Aquaculture & Fisheries (Scotland) Act 2007. The introduction of that power brought Scotland into line with other parts of the UK, where fish movements have been tightly regulated for many years. We have had some concerns about the introduction of fish, particularly Atlantic salmon, in areas where DSFBs perform a regulatory function. This is particularly problematic when the catchments concerned have been classified as Special Areas of Conservation under the EC Habitats Directive and these activities have not been controlled in a manner which is fully compliant with its requirements. SNH strongly agrees, therefore, with the provisions outlined in Section 28 of the Bill.

Part 5. Miscellaneous

Section 50 of the Bill outlines measures to recover costs incurred with the carrying out of certain aquaculture and fishery functions. These have not been identified in detail, but will be specified in regulations. We agree that businesses or sectors which benefit directly from the support provided by the public purse should pay a fair share of the costs incurred. We therefore support the inclusion of this section within the Bill.
Written submission from Scottish Water

Scottish Water would like to thank you for the invitation to comment on the aforementioned consultation paper. Our comments are restricted to the section covering shellfish waters.

PART 4: SHELLFISH, Protection of shellfish waters

Framework of Environmental Objectives

We note that the Water Environment and Water Services (Scotland) Act 2003 (WEWS) will be amended by the Aquaculture and Fisheries (Scotland) Bill (The Bill) to:

- include the protection of shellfish waters
- incorporate the broad principles of the Shellfish Water Directive into the River Basin Management Planning (RBMP)
- develop a framework of environmental objectives

We would like to understand how the framework of environmental objectives will be developed, and whether this will be subject to public consultation? This is important as it may lead to specific actions for Scottish Water that need to fully understood.

Designation

We note the proposed alignment of designation and de - designation of shellfish protected areas from the current two-three year cycles to the minimum 6 yearly cycle in-line with RBMP. On the basis of the information provided we understand that the process will be undertaken during the “current condition and challenges for the future” consultation period of RBMP. We would ask for clarity on the approach taken to achieve alignment, and the year when alignment will be achieved. This is important to Scottish Water to ensure alignment with regulatory investment planning decisions through the Quality and Standards (Q&S) process.

Disproportionate Cost

We welcome that, in considering the continued protection of the shellfish industry, disproportionate costs to other sectors and bodies, such as Scottish Water, will be considered. Scottish Water has already invested substantial sums to enhance assets in the vicinity of shellfish waters and it is important to ensure investment is both proportionate and effective. In many cases Scottish Water may not be the primary cause of water quality problems and we welcome the commitment to address sources of diffuse pollution.

Written submission from the Scottish Wildlife Trust

The Scottish Wildlife Trust welcomes the opportunity to provide evidence on the Aquaculture & Fisheries (Scotland) Bill.
Summary

- We welcome new statutory measures to underpin the management of fish farming in Scotland. However, these must be complemented by timely Government action on those proposals consulted on but not addressed in the Bill.
- We welcome new powers that modernise and strengthen the management of salmon and sea trout fisheries in Scotland. In particular, the introduction of mandatory carcass tagging to reduce illegal and unreported catch.
- Full availability of data is required to fully assess strategies for the control of sea lice and disease and gain a broader understanding of the impacts on wild fish. The reporting of such data should be a statutory requirement.

Introduction

Wild Atlantic salmon are vulnerable to human pressures, with many stocks across the whole of its range in a depleted state. International efforts to reduce exploitation have been undertaken but many factors, including climate change, are thought to be contributing to declines. Given the status\(^7\) and iconic standing of salmon, it is vital that those activities under our control are managed to improve the situation and that every effort is taken to regulate appropriately for its conservation.

The Scottish public has a strong connection to our native wildlife and habitats and there is clear support for their continued protection. When asked in a 2011 survey by Scottish Natural Heritage\(^8\) about the importance of protecting the quality of places for future generations the results revealed that rivers and lochs are most highly valued, followed by coast and beaches. When asked about the importance of different aspects of the natural environment and its management, high water quality around the coast came out on top, with continuing to have wild salmon in Scotland’s rivers, at number four. Both aquaculture and freshwater fisheries have a strong impact on these areas of importance.

Our response to the consultation\(^9\) outlined our general support for many of the proposals contained therein. While we can welcome the inclusion of several elements we firmly believe that this Bill must be complemented by proceeding with a number of the proposals set out in the consultation. We understand that a number of these proposals can be progressed through existing powers and request a firm commitment from Government that these be implemented without delay.

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\(^7\) The Atlantic salmon (Salmo salar) is listed in annexes II and V of the European Union’s Habitats Directive as a species of European importance

\(^8\) What the Scottish public value about the natural heritage. Available at http://www.snh.gov.uk/docs/B941737.pdf

\(^9\) https://www.scottishwildlifetrust.org.uk/docs/002_057_publications_policies_Consultation_response_Aquaculture_and_Fisheries_1330709239.pdf
Part 1 – Aquaculture

The Scottish Wildlife Trust supports sustainable aquaculture and would like to see Scotland become a world leader in sustainable aquaculture production. The reputation of Scottish farmed fish products depends to a considerable degree on the ecological quality of Scotland’s aquatic environment. Quite apart from the need to minimise impacts on ecological grounds, it makes every sense for the industry to also minimise impacts to mitigate reputational risk. If the salmon farming industry is perceived as damaging wild salmon stocks and the environment, consumers may simply reject its products.

1 - Fish farm management agreements and statements. We welcome the inclusion of a statutory requirement for farms to be party to a Farm Management Agreement (FMAg) or Statement (FMS) with sanctions for non-compliance. However, we believe the setting of management area boundaries should be subject to stronger scrutiny.

Area-based management that promotes coordination of production, fallowing and treatment has long been identified as an effective method of reducing the risk and spread of disease and parasites and reducing the use of chemical treatments.\(^\text{10}\) While agreements have operated under the voluntary Code of Good Practice (CoGP), the lack of a statutory system risks such agreements being undermined by non-participation. Additionally, in a spirit of openness and transparency we believe Farm Management Agreements should be publicly available documents and would benefit from the participation of appropriate stakeholder groups with common interests in the health of farmed and wild salmonids, and the wider environment.

Under the Bill, operators would retain the primary responsibility for determining boundaries of farm management areas (FMAs) under the CoGP. The criteria under which boundaries are set are not clear and the Code simply states that “delineation of FMAs is subject to review, which takes account of changes in operation, production, ownership, etc.”\(^\text{11}\)

We supported the consultation proposal to provide Scottish Ministers with a fall back power to determine management are boundaries and note the inclusion at section 1(6) of a power to modify the definition of the CoGP in relation to farm management areas. We understand that this provides a fall back power allowing Scottish Ministers to define farm management area under a separate mechanism if deemed necessary. We believe there should be commitment to a Government review of the current approach to the delineation of farm management area boundaries to ensure that it is appropriate in the context of environmental protection.

We firmly believe that boundaries for farm management areas must be determined primarily on ecological grounds, taking into account the best available evidence on sea-lice dispersal and connectivity/interactions between

\(^{10}\) http://www.nasco.int/pdf/aquaculture/wild_farmed_report.pdf
\(^{11}\) http://www.thecodeofgoodpractice.co.uk/farm/farms-introduction
sites. Where there is limited information, a precautionary approach of selecting larger, rather than smaller boundaries, should be adopted. The proposed boundaries must be suitable to protect the local environmental and ecological features and account for the level of risk or sensitivity of a given area – for example its proximity to a river designated under the Habitats Directive for the protection of Atlantic salmon. They must also take account of the relevant cumulative and in-combination effects of connected activities, such as processing plants. The criteria by which a farm management area boundary has been decided should be publically available and involve the participation of appropriate stakeholder groups.

2 – Escapes, and obtaining samples, from fish farms. While we would advocate a goal of zero escapes we believe that it is essential that fish identified as escaped can be traced back to their farm of origin. We understand that genetic tools may now be available and we would support the use and application of such samples so that escapes can be identified and related to the farm or company of origin.

3 - Technical requirements for equipment used in fish farming. Escaped farmed salmon have the potential to disrupt ecosystems and alter the overall pool of genetic diversity through competition with wild fish and interbreeding with local wild stocks of the same population. It has been shown that interbreeding of farmed with wild salmon of the same species can result in reduced lifetime success, lowered individual fitness and decreases in production of wild salmon.\(^\text{12}\) Escaped farmed salmon must therefore be considered a severe threat to the long-term existence of wild Atlantic salmon.

The most effective way to address these risks is to reduce the number of escapes of farmed salmon to zero. This is in line with the international goal of the North Atlantic Salmon Conservation Organisation (NASCO) that ‘100% farmed fish to be retained in all production facilities.’\(^\text{13}\)

We fully support the inclusion of a power allowing Scottish Ministers to prescribe technical requirements for fish farm equipment. However, we believe that as a high proportion of escapes are caused by human error (30% of all salmon farm escape events in 2011\(^\text{14}\)), enforceable technical regulations should extend to include training in the operation of equipment as well as its design, construction, manufacture, installation, maintenance or size.

Furthermore, predation resulting in a hole in the net has accounted for 36% of total escape events at saltwater salmon sites between Jan 2011 (when current classification of escape cause was introduced) and Oct 2012.\(^\text{15}\) Efforts to understand and reduce predator effects, specifically seals, on farm equipment must be prioritised in the development of a technical standard. Ultimately removing the need to kill seals, for example by requiring tensioned

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\(^{13}\) [http://www.nasco.int/pdf/aquaculture/BMP%20Guidance.pdf](http://www.nasco.int/pdf/aquaculture/BMP%20Guidance.pdf)


\(^{15}\) [http://www.scotland.gov.uk/Topics/marine/Fish-Shellfish/18364/18692/escapeStatistics](http://www.scotland.gov.uk/Topics/marine/Fish-Shellfish/18364/18692/escapeStatistics)
nets or other effective and benign deterents, would benefit wildlife and improve the public and investor perception of salmon farming, which suffers greatly from the association with seal deaths.

In Norway, a technical standard, enforced through the NYTEK regulations\(^\text{16}\), was introduced in 2003 and specifies requirements for the design net cages and mooring systems necessary to cope with environmental conditions at fish farm sites. It also addresses the handling and use of equipment. The introduction of the standard appears to have resulted in a dramatic reduction in the number of major escape incidents in Norway, principally due to a sharp decline in large-scale escapes resulting from the failure of cages.\(^\text{17}\)

4 – 7 Wellboats It is of serious concern that wellboats are not sufficiently covered by controls to manage the risk of parasites, pathogens or diseases. We therefore welcome, the enabling legislation in the Bill and believe that it must be enacted as soon as possible. We understand that the control of discharges from wellboats at fish cage sites could be considered under existing Controlled Activities Regulation licence arrangements and we ask that Government take this forward urgently.

Part 2 – Salmon Fisheries

The management model for migratory salmonids in Scotland allows local decision-making by those with local knowledge of the catchment. While we appreciate this model, we support proposals allowing Ministers to intervene when the required standards of operation are not being fulfilled.

22 - Carcass tagging We fully support the introduction of statutory carcass tagging for all net caught salmon as described in the Bill. Such a system is essential to reduce the levels of illegal and unreported catch. We believe a regulation must be introduced for the season subsequent to the Bills enactment. The requirements of the regulation should mirror those in place in England & Wales since 2009, where each tag is individually numbered and the details of all fish caught are recorded in a log book.

Proposals not addressed in the Bill

Many proposals covered in the consultation have not been carried into the Bill. Although we understand that a number of these can be taken forward under existing powers we seek firm commitment and timelines for action.

Publication of data – A significant barrier in assessing the impacts of fish farming is the lack of publically accessible farm-specific data. The consultation proposed requirements around the provision of sea-lice, fish mortality, movement, disease, treatment and production and we understand that existing powers are available to require such information provision.


Understanding lice levels on farms and how infestations in farmed salmon are linked to increased incidences in wild salmonids is key to ensuring the sustainability of the industry and would go some way to addressing the conflicts that arise when the two are located in the same vicinity. The impact of such a link remains contentious. However, a report to the Salmon Aquaculture Dialogue\textsuperscript{18} concluded “it is not plausible to draw a single overriding conclusion regarding the potential negative impacts of sea-lice on all wild fish stocks world-wide. Nevertheless we believe that the weight of evidence is that sea-lice of farm origin can present, in some locations and for some host species populations, a significant threat. Hence, a concerted precautionary approach both to sea-lice control throughout the aquaculture industry and to the management of farm interactions with wild salmonids is expedient.”\textsuperscript{19}

In order to fully assess strategies for the control of sea lice and gain a broader understanding of the impacts on wild fish, the results of sea lice monitoring from individual farms should be made publically available in its raw form. While we note that the Government’s intention is to develop an improved voluntary system of reporting, in discussion with stakeholders, we would urge that existing powers be used to make such reporting a statutory requirement.

**Marine Planning** - While as stated in the consultation document it is not the intention for this Bill to consider issues related to location policy for fish farms it is important that the Committee consider this Bill within the wider marine policy and legislative context. In particular the Marine (Scotland) Act 2010 and the provisions concerning marine planning, which once established will provide a framework for the sustainable development of all industries and activities throughout Scotland’s seas. Marine planning is fundamental to pillar one (wider seas measures) of the Government’s three pillar approach to marine nature conservation. Marine planning can assess how multiple uses of the marine ecosystem can proceed whilst operating within the carrying capacity of the marine environment, which is of particular relevance to the aims of this Bill in managing interactions between wild and farmed fish.

Appropriate risk-based site selection for fish farms is a key factor in managing interactions between wild and farmed fish and can prevent many of the unintended and negative impacts of the industry. The use of science-based sensitivity mapping for example to identify suitable locations and guide decision-making will be an important future approach. Integration of fish farm area management with a strategic marine planning system will also enable full and proper consideration of cumulative and in-combination effects.

\textsuperscript{18}http://assets.worldwildlife.org/publications/189/files/original/SalmonAquacultureDialogFAQJu ly2012Website_SalmonVVV1.pdf?1344876257

We are concerned therefore that targets for finfish aquaculture growth have seemingly been adopted by Government prior to formal consultation and adoption of a national marine plan. We do not believe that this target has considered the carrying capacity of Scotland’s environment for fish farms but is instead based on what the industry believes it can operationally achieve. Adoption of a national marine plan is now unlikely until 2014 with regional plans following in subsequent years. It is therefore vitally important that in the absence of a planning system, marine development occurs within the constraints of a robust regulatory regime that ensures environmental protection.

Written submission from the Sea Fish Industry Authority (Seafish)

The Sea Fish Industry Authority (Seafish) is a non-departmental public body that provides support to all sectors of the UK seafood industry. It has a stated commitment to promoting sustainable and profitable seafood enterprises. Seafish has no remit for involvement with the salmonid sectors, cultivated or wild, but it has a role in promoting and supporting all marine finfish and shellfish cultivation and sea fisheries developments.

In general, we welcome the provisions, as proposed, within the Bill, but offer comments on specific areas.

Part 1 Aquaculture: The focus of the section is, understandably, salmon-centric, but care should be taken that any measures proposed or implemented do not prejudice the present and future development of cultivation businesses and sites for halibut, cod, turbot or any other marine fish that may offer commercial prospects in the medium to longer term. Safeguards should be strengthened.

Chapter 1 Fish farm management. Section 1.2 The requirement for a marine (i.e. not a salmon or trout site) finfish cultivation site to be party to a Farm Management Agreement or Statement that may have little or no relevance to its business or impact may be an unwarranted burden and provision should be made so that a delay in agreeing such documents cannot be used as a block to development. A mediation mechanism between parties may be required on occasion.

There should also be a clearer mechanism for mediating between the differing requirements of cultivating to certified Organic Standards and those of ‘conventional’ farms when contentious issues arise.

Part 3 Sea fisheries: Amendment should be considered to clarify that conducting valid scientific research onboard a commercial fishing or similar vessel that is not designated as a research vessel would provide a defence to or ‘grounds for release’ under powers conferred by Sections 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43 and 44.

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20 By 2020: To increase the sustainable production of marine finfish at a rate of 4% per annum to achieve a 50% increase in current production
Part 4 Shellfish: We welcome the provisions to continue the protection offered to Shellfish Cultivation Waters. However, there remains the concern that the specific protections conferred under the Shellfish Waters Directive are not enshrined within the Bill and this may serve to lessen the actual level of protection encountered on the ground. In addition, the wording within section 47.4(b) (ii) might appear to offer SEPA the opportunity to decide that it may not be ‘necessary or desirable’ to implement protection measures in areas where it considers that the expense would not be commercially justified. Whilst not the intent of the Bill, this may prove to be prejudicial to some smaller shellfish cultivators located in some of the more remote and fragile rural areas.

Part 5 Miscellaneous: Section 50. Whilst recognising the necessity of funding activities pertaining to aquaculture or fisheries, the provision of the mechanism to introduce direct charges for such functions is of concern to industry. In these financially challenging times, any measure that imposes, or may impose an additional, unknown and undefined, cost burden on a business or sector, induces uncertainty, weakens investor confidence and may ultimately influence future investment decisions or prejudice the viability of a business. Careful consideration should be given to the desirability of this step.

Should the Committee so wish, we would be happy to expand upon our representations in person

Written submission from David Ainsley, Sealife Adventures

I welcome the opportunity to submit evidence to the RACCE Committee.

I have operated a wildlife watching and diving charter boat in Argyll over 20 years, have also worked in trout farming and creel fishing and hold a degree in Marine Zoology. In the local area there are ten other wildlife boats generally employing two or three people with perhaps 24 customers per day bringing income to accommodation providers, shops, pubs and restaurants.

We are at a cliff-edge. The fin-fish farming industry is applying for consents for significant expansion, but existing environmental problems have not been resolved and farms which are currently in inappropriate locations and causing problems, such as Ardmaddy are applying for increases in biomass.

Important issues which threaten jobs in wildlife tourism and salmon fishing have been left out of what is a very limited draft Bill, and I hope that the Committee will expand the scope of this bill.

The technology already exists to allow fin-fish farming to operate in harmony with tourism and the marine environment and the environmental problems currently caused by the industry would be greatly reduced if the industry were encouraged by progressive legislation to adopt better technology.

Double netting cages with outer nets designed not to trap wildlife would make it unnecessary to shoot seals, or to use seal scarers which disturb porpoise
and exclude them from sounds, threatening wildlife tourism jobs. There is scope within Chapter 2 of the proposed Bill under “equipment” to encourage the use of double nets. All new farms could be constructed with this technology.

Inappropriately sited farms could be moved well offshore to areas of lower conservation importance.

The ideal solution is for the industry to move to closed containment. In such systems the farm is separated from the sea or fresh water. The problems of disease and sea-lice transmission to and from wild fish, organic and chemical pollution, seal shooting and disturbance of porpoise by seal scarers would all be solved. Farms would make a significant saving in the use of chemicals. There is an economic benefit in that waste material would be used as fertiliser.

**Seabed Pollution**

44% of seabed monitoring reports of organic pollution provided by fish-farmers to SEPA between 2009 and 2011 were classified as “unsatisfactory” and a further 21% were graded “borderline”.(ref 1). This is consistent with my own underwater observations.

I have video taken at a farm showing extensive bacterial mat (indicating a highly polluted seabed) outside what was the “Allowable Zone of Effects” (AZE) at the time. The farm was prosecuted and the site has been remodeled, so that the polluted area now falls within the new AZE.

I also filmed the seabed at, a farm currently classified as “satisfactory”. The video shows a very degraded seabed with bacterial mat over a large area. The SEPA monitoring report 22/4/10, when the biomass was 660 tonnes, states that “the survey does not satisfy the CAR license requirements” and that “two stations failed for abundances of enrichment polychaetes”. Despite these concerning observations the farm was graded as “satisfactory” and was perhaps fortunate not to be graded as “borderline” or “unsatisfactory”. This farm is in the process of applying for a CAR license to increase from 750 to 1500 tonnes. The computer model predicts that this more than doubling of biomass will not be beyond the assimilative capacity of the local environment. One has to question the reliability of the prediction given that the seabed is stressed at 660 tonnes.

There is a rocky reef near the small farm at within the . This reef had consistently hosted a population of the very rare UK BAP seafan anemone *Amphianthus dhornii* since 1983 and it was a regular dive site for us because of this.

I carried out a video survey of the reef in October 2001 just before the farm was first stocked and filmed 23 seafan anemones on one dive. I continued to survey exactly the same area on a regular basis, recording impacts to the reef - which was well outside the ‘Allowable Zone of Effects’. The required
Appropriate Assessment (which should have been produced before the discharge consent was granted in 2001) was eventually published in 2005. It states "SEPA concludes that the presence of the cage group would not affect the integrity of the site, in particular the nearby reef features" A group of us returned to exactly the same survey site 11 years to the day after the pre-impact survey. The site had been fallowed for some time and many species appeared healthy, but in 8 dives we could find no sea-fan anemones. Would consent have been given for a nearby pollution source if the protected species was on land?

Scallop dredging was banned in the Firth of Lorn SAC in 2007. A computer model of sediment raised by dredgers predicted that the sediment would not affect the reefs (ref 2). The jewel anemone *Corynactis viridis* is an indicator species of very clear water. An underwater study (ref 3), found this anemone to be rare in what is now the SAC in 1982. I have filmed the same part of one particular reef within the SAC most years between 2001 and 2012 and it is clear from a comparison of the videos taken that the abundance of jewel anemones has very significantly increased on this and a number of other reefs within the SAC since 2007 when dredging stopped. We have not observed increases in jewel anemones outside the SAC. Thus observations on the reefs raise questions about the prediction of the computer model. The problem with computer models is that the sea is a highly complex place and any model is only as good as the assumptions it is based on. Computer models need to be validated by observations on the seabed.

However SEPA relies on computer modeling to license sites, even in situations of complex tides and rocky seabeds (such as the recently granted CAR license at Ardmaddy) when it is known that the model used gives unreliable results in these circumstances.

**Moving the goalposts**

There used to be a recommendation that farms should be sited no closer than 8 Km to eachother. Now we have much larger farms less than 2 km apart.

Until 2005 the AZE was 25 meters from the cage edge. Then Site Specific Modeling was brought in allowing larger areas to be polluted.

A layperson might reasonably assume that the ‘Allowable Zone of Effects’ around a fish farm would be an imaginary ‘line in the sand’ on one side of which some pollution effects would be tolerated but on the other side the seabed would be pristine. However it seems that this is now not the case at all. The Modeling report for *(CAR/L/1000800 sept 2012)* models the Infaunal Trophic Index (ITI) at the AZE at 30. The ITI relies on the assessment of benthic organisms in polluted areas. ITI 60 to 100 equates to a normal community: 30 to 60 is a ‘changed’ community and less than 30 is a ‘degraded’ community. Thus the AZE now represents the borderline between ‘degraded’ and ‘changed’.

In Chile salmon farms expanded greatly with poor environmental controls, then suffered a major outbreak of ISA disease with social and economic
consequences. Is it wise for Scotland to be relaxing the environmental controls now?

**Are existing environmental safeguards being effectively applied in the consenting process?**

*The Scottish Government has committed itself to “using sound science responsibly.....ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the Precautionary principle)” (ref 4)*

There are a number of new applications for consent currently being considered and there are concerns that the principles above are not always applied to the process. If the Committee wishes to consider a case-study an independent analysis of the Appropriate Assessment and Planning Process at Ardmaddy South would be a worthwhile exercise.

**Sea-lice**

The transmission of sea-lice, other parasites and disease from farms to wild fish needs to be properly legislated.

**Seal shooting, the impact of seal scarers on cetaceans and double nets**

It is unnecessary for salmon farmers to shoot seals. Salmon farming and wildlife tourism operate in the same areas and while the numbers shot may be a small percentage of the overall population, shooting can severely deplete the local populations of seals which boats take people to see. There is a need for independent monitoring of the number of seals shot, even SNH do not know how many seals are shot at each site.

Because the single tensioned nets used by 87% of Scottish salmon farms are not fully effective at keeping seals and salmon separated, the industry shoots seals and uses devices called seal scarers or Acoustic Deterrent Devices (ADD’s) which emit loud underwater noises in order to keep seals away from the farms. ADD’s also disturb echo-locating porpoise and dolphins from a large area and so can exclude cetaceans and seals from inshore sea lochs and sounds (ref 5) which are important to cetaceans and to wildlife tourism operators like ourselves. Farms which use single nets, ADD’s and shoot seals are not complying with the requirement of the guidelines to the Marine (Scotland) Act 2010 that seals should be shot only as a “last resort”.

The ideal solution to this and other issues is to move or convert farms to closed containment. Another solution which fully meets the requirement that seals should be shot only “as a last resort” is for farms to fit an extra net completely surrounding the cage with a mesh size which does not trap wildlife. This double net keeps the seals and salmon separated so that there is no need to shoot seals or disturb porpoise. The farms benefit by selling “seal friendly salmon” and by reducing the risk of escaped stock. Double nets are already fitted to some Marine Harvest farms in Canada.
All Cetaceans have full legal protection under the Habitats Directive. The Nature Conservation (Scotland) Act makes it an offence to disturb deliberately or recklessly or to harass any cetaceans. **The use of ADD’s in areas important to porpoise could well be illegal given that there are alternatives.**

The wildlife on which our businesses rely is threatened by the unnecessary shooting of seals and by the disturbance of seals and cetaceans by ADD’s. We have lost sheltered dive sites which are important for winter bookings. Wild salmonids are in serious decline locally and there is scientific uncertainty as to the level of damage to ecosystems caused by chemical and organic pollutants.

The technology exists for fin-fish farms to prosper and expand with minimal impact on wildlife and tourism. The scope of this Bill could be expanded to encourage the industry to adopt this technology.

I would be happy to present and explain underwater videos and to take the committee members out on our boat to see the situation for themselves.

**Ref 1** Salmon and Trout Association report August 2012
**Ref 2** Dale & Sherwin (2011) SNH Commissioned Report 414
**Ref 3** Picton, Howsen et al. Sublittoral survey of Scarba, Lunga and Garvellachs NCC report 1982
**Ref 5** Variation in Habitat Preference and Distribution of Harbour Porpoises West of Scotland. Cormac G. Booth PhD University of St.Andrews 2010

**Written submission from the Spey Fishery Board**

The Spey Fishery Board welcomes the draft Aquaculture & Fisheries Bill and appreciates the opportunity to comment on some aspects of the Bill, which the Board believes may have unintended consequences if they are pursued.

The Spey Fishery Board adheres to the DSFB's Code of Good Practice and each year we publish a comprehensive Annual Report, including a financial summary.

We already hold our Annual General Meeting in public and have no difficulty with the principle of open meetings. However, it is important and legitimate that some aspects of meetings can be held in private (e.g. when discussing deployment of bailiffs, CCTV cameras, staff wages etc.). It is also important that DSFBs are able to raise contentious ideas, which may never be taken forward, without concern that these would be taken out of context, given undue weight, or misinterpreted as DSFB policy if aired in a public meeting. Without clear guidance about what it is acceptable to discuss in private, this provision could have the result of inhibiting discussion within meetings. Indeed, potential Board members in some districts in which there are particularly contentious issues to be faced may even be put off.
from volunteering and giving up their time. This is already an issue in some
districts. Furthermore, the cost of moving these meetings to a venue with
sufficient capacity for members of the public would involve a significant
expense, which may prove disproportionate for many of the smaller DSFBs.

We would suggest that a solution would be that the Annual General Meeting
should be a public meeting, and that there might be an opportunity for the
public to attend part of all other meetings and submit proposals to be
considered.

We will implement a formal complaints procedure, if it is required, but we
believe that this proposal may be unnecessarily prescriptive. The processing
of complaints will usually be undertaken by the clerk and in the case of
smaller boards, many employ clerks who are paid at an hourly/daily rate. If
processing complaints (which may be ill-founded or arise from single-issue
‘campaigns’) becomes arduous, this will result in resources being diverted
from other areas of operation. We are also concerned as to why such a
statutory provision is deemed necessary, particularly when it appears to us
that public bodies do not operate under a similar requirement.

The Spey Fishery Board welcomes the inclusion of a power to introduce a
carcass tagging system in Scotland but we believe that this provision should
be delivered in primary legislation. Carcass tagging was a clear
recommendation of the mixed stock fisheries working group and there was
overwhelming support for this provision in the consultation. Whether delivered
via primary or secondary legislation, we would seek a clear assurance that a
statutory system, *using individually numbered, recorded tags*, will be in place
in time for the 2014 salmon fishing season. Any system which does not use
numbered tags would not allow verification of catch data, nor would it prevent
illegal sales of fish from other parts of the United Kingdom (where tags are
numbered) or of fish caught by rod and line (sales of which are banned by the
2003 Act). Equally, the Spey Fishery Board, along with many other DSFBs, is
strongly in support of a national carcass tagging system for all rod caught fish
not returned to the river. We believe that carcass tagging of rod caught fish
would be a useful tool to aid DSFBs in ensuring compliance with their
conservation policies. Furthermore, we must emphasise that whilst it is illegal
to sell rod caught fish, it is not currently illegal to purchase rod caught fish.
Once we have a statutory system of carcass tagging in place, the Spey
Fishery Board believe that it should be illegal to both sell and purchase an
untagged fish.

The Spey Fishery Board is supportive of the principle provided by Section 25
that will enable Scottish Ministers to impose requirements regarding the
monitoring of certain orders which we believe is consistent with evidence-
based management. However, this section also makes failure to monitor and
evaluate the effects of an order a criminal offence, on which a DSFB may be
convicted on the evidence of one witness. This appears to be totally
disproportionate, and again, may result in potential Board members being put
off from volunteering and giving up their time. We understand that the
inclusion of the provision that the Board may be convicted on the evidence of
one witness is a drafting error, but we would highlight again that this is
disproportionate in the case of a Board failing to meet a monitoring requirement. Finally, we believe that there would need to be a degree of proportionality in placing monitoring requirements on a DSFB, due to the potential expense and/or expertise required to carry out such monitoring, particularly in the case of smaller Boards. We would be concerned if Scottish Ministers were to take "out an order at their own initiative, and then impose a legally binding requirement to monitor such an order on that Board. We therefore believe that Section 25 should only apply where a DSFB or proprietors have applied to Scottish Ministers for such an order.

The Spey Fishery Board is also concerned by any proposal to permit fishing during the weekly close times for net fisheries (6pm Friday - 6am Monday), which for bag or stake net fisheries is achieved by removing the 'leader' of a net and thereby preventing fish from entering the nets. The weekly close times were put in place for sound conservation reasons and were designed to allow a proportion of the salmon run to have free passage into their natal rivers throughout the season. However, in some parts of Scotland, the weekly close time is often not being observed if, for example, rough sea conditions make it too dangerous to remove the leader, resulting in a significant increased exploitation of fish. We are content that exceptions to the weekly close time should exist and we would not want to see anyone’s life being put at risk. However, we believe that where the close time cannot be adhered to for reasons of health and safety, the leaders should be removed for a corresponding period at the earliest next opportunity. Implicit in this, is a requirement for netsmen to report all such occurrences when leaders are not removed. We do not support the suggestion from SNF AS that the weekly close time should be abolished and a minimum number of days at sea would be introduced. We do not support this solution for a number of reasons. Such a solution would not allow free passage of fish to their natal rivers throughout the season, would permit additional exploitation on the fragile spring stock component (considered by Marine Scotland Science to include all fish entering the rivers before June) and would result in a considerable increase in exploitation from 128 days to 150 days. This would be absolutely contrary to internationally accepted best practice and agreements on mixed stock fisheries. It would also be unacceptable for such a solution to set a minimum rather than maximum number of days at sea.

Written submission from the Tay District Salmon Fisheries Board

The Tay District Salmon Fisheries Board welcomes the opportunity to comment on the Aquaculture and Fisheries Bill. However, as our views have been comprehensively addressed by the Association of Salmon Fishery Boards we refer you to that response, which we endorse, rather than repeat them in detail.

In addition we wish to draw attention to the part of Section 20 concerned with Members Interests, particularly the part headed 46E(2)(e). As the majority of members of DSFBs are proprietors of salmon fishing rights with interests in their respective fisheries, a DSFB could not function if members are excluded
from taking part in the board’s consideration of all business in which members have relevant financial interests. Clarification of what constitutes a relevant interest is required therefore. A distinction should be made between a fishery interest and a non-fishery financial interest (e.g. where a board member might have an interest in an activity that might impact on the protection and improvement of salmon fisheries such as hydroelectric development, agriculture etc). Section (e) should only apply in the latter case.

We also wish to emphasise the concerns raised by the ASFB in relation to Section 25 of the Bill. We do not think it proportionate that a Board, made up of volunteers, should be criminally liable for the failure to monitor certain orders. This would especially be the case where an order was taken out by Scottish Ministers at their own hand. That would clearly be unfair and would, we believe, be a deterrent to volunteers wanting to serve on boards.

**Written submission from Professor Chris Todd**

**BACKGROUND**

In collaboration with colleagues at universities and research institutes in St Andrews, elsewhere in the UK and overseas I have, over the past 15 years, published 10 journal articles, 1 book chapter and 1 major grey literature report relating to sea lice and their effects on host fish physiology and survivorship. Our research has primarily been funded by the Natural Environment Research Council and the European Union, but the most recent journal article (*Paper 12*) in *Proceedings of the Royal Society B* had no support from any external bodies other than the host institutions of the six co-authors.

In view of the recent interest in *Paper 12* – and its relevance to *Part 1* of the *Aquaculture and Fisheries (Scotland) Bill* – I would wish here to provide a summary of how and why we came to undertake the work and publish the results in *Papers 11 and 12* in the peer-reviewed literature.

*Paper 11*

This work comprised part of a large international collaboration ("Sustainable Management of Interactions between Aquaculture and Wild Salmonid fish" – SUMBAWS – funded by European Union FP5; Contract number Q5RS-2002-00730) between Scotland, Ireland, Netherlands and Norway over the period 2002-2005. St Andrews was the lead Partner and Dr Neil Hazon the Project Co-ordinator.

*Paper 11* reported on the eight experimental releases of hatchery-reared salmon smolts undertaken as part of SUMBAWS in three river systems in Ireland over the period 2003-2005. For each release, approximately half the smolts were untreated controls and half were treated with the in-feed parasiticide, emamectin benzoate (SLICE) prior to release. SLICE is an effective treatment against sea louse infestation that is routinely applied in the salmon aquaculture industry. Its efficacy is limited to perhaps 1-2 months so any protection offered to the experimental smolts was restricted to the early marine migration of the juvenile fish. It is known (*Paper 2*) that wild salmon
continue to cross-infect one another at sea throughout their marine migration and that adults returning after 2 years at sea carry, on average, higher infestations than those returning after just 1 year.

All experimental fish were internally tagged and externally marked to indicate the presence of a tag should the adult fish be recaptured on return to freshwater one or two years later. In total, 74,234 smolts were released and 472 tagged adult fish were recaptured one year later and 21 two years later. The overall result from the analysis of the tag recaptures, using Fisher's Combined Probabilities test, was that there was a highly significant increased likelihood of survival to return for smolts receiving the treatment. The probability of obtaining this overall result by chance was much less than one in a thousand (P <0.001). A probability of 5 in 100 (P = 0.05) is conventionally taken as the critical level in ascribing significance to an experimental outcome. The conclusion drawn from this study was that protection of smolts over the earliest weeks of their marine migration had a highly significant effect on survival to adulthood, and that sea lice comprise a significant source of mortality to free-ranging salmon. From estimates in the paper of the proportion of smolts that returned as adults, "protected" smolts were, on average, 1.8 times more likely to return than unprotected (control) smolts.

**Paper 12**

*Paper 12* was published in November 2012. Just prior to, and immediately following, the publication of *Paper 11*, two other papers (Jackson, D. et al. [2011] *Aquaculture*, 320: 159-163, and Jackson, D. et al. [2011] *Aquaculture*, 319: 37-40) were published elsewhere. Those papers reported the results and conclusions of similar experiments (also in Ireland) but undertaken by a different research group. The conclusion of both those papers was that "the salmon louse (was) a minor component of the overall marine mortality in the stocks studied". We had raised some concerns about the first Jackson paper in the Discussion section of our *Paper 11*, but following the second Jackson paper a group of us (Finstad, Gargan, Krkošek, Revie, Skilbrei, Todd) found that we all had concerns not only over the data that they analysed, and the statistical methods applied in analyzing those data, but also the validity of the conclusions that had been drawn in both. In view of this, we chose to compile all the available published literature (including both Jackson papers) on experimental releases of chemically treated and control groups of salmon smolts and to subject these to a detailed meta-analysis. Meta-analysis is a widely used approach to synthesizing and combining data from disparate sources, and has proved to be a powerful tool for identifying the pattern (or patterns) and strengths ('effect sizes') of significant outcomes. The available experimental data on releases of treated salmon smolts were extensive both in time (1996-2006) and geographic range (Ireland, Norway), and involved very large sample sizes totalling >280,000 fish. All releases were undertaken in rivers adjacent to areas subject to aquaculture.

We undertook three complementary analyses of the composite data, ranging from the standard computation of odds ratios (to estimate effect size), to simple paired t-tests and mathematical modelling of marine survival. All analyses converged on the same conclusion: that treatment had a highly
significant effect on the survivorship of salmon smolts to return as mature adults. The overall odds ratio of 1.29 was shown by the mathematical modelling to correspond to an estimated loss of 39% of adult salmon recruitment. The 95% confidence interval around that mean estimate of 39% was 18-55%. Thus, when assessing the total mortality of salmon over their marine migration, the ultimate consequence was that more than one third of return adults were being lost if they had not been treated.

In Paper 12 we made no attempt to estimate per cent survivorship of all the experimental releases but, as far as was possible, retained our analytical focus on comparisons of the numbers of tags actually retrieved. The generation of per cent survivorship estimates for populations or experimental groups is complicated, and necessitates various assumptions regarding tagged fish which survived but which were not caught or retrieved. Notwithstanding those qualifications, it is apparent that the conclusion drawn by Jackson et al. in their two papers (that sea lice mortality is a minor component of overall mortality) is based upon their estimates of a difference of perhaps 1 or 2% in the ultimate survival to return of treated and un-treated smolts, and that marine mortality increased markedly over the time period of their experiments. The latter can be explained by several factors relating to the experimental fish themselves and quite distinct from any purported changes in overall marine mortality regime. Moreover, focusing on an absolute difference of 1-2% obscures the most important implications of these research findings. For example, if sea lice reduce adult recruitment (to re-enter the river) from 6% to 4% then this 2% reduction is equivalent to a one third (33%) increase in overall total marine mortality and a one third decrease in adult recruitment. To place this in hypothetical numerical terms, if, for a given river stock, numbers returning fell from 6,000 to 4,000 adults then that reduction would be viewed as being of concern to a river manager.

But here there are consequences beyond the simply numerical for the management and conservation of wild salmon populations. Because of their typical fidelity to return to their natal river, salmon stocks characteristically show marked genetic differentiation. Some of that genetic variation is considered to be adaptive. Salmon populations often have very low effective population sizes and the actual numbers of breeding adults can be very low in small river systems. Thus, if a stock is reduced from 60,000 to 40,000 that number alone may be of concern, but will likely have relatively little genetic effect at the population level. But a reduction from 60 to 40 adults in a small river may engender critically important population genetic effects as a result of the perhaps irreversible loss of genetic diversity in that stock.

We believe that the analyses and conclusions reported in Paper 12 are comprehensive and robust. We would suggest that there is a crucial importance to focusing on pair-wise comparisons in analysing experimental data such as these, and that the focus should not be directed towards absolute percentages but to relative proportions (or percentages), when assessing the overall total mortality effects influencing successful adult salmon return and which is attributable to sea lice. We maintain in Paper 12 that sea lice are a highly important source of mortality to free-ranging salmon.
The data from all the experiments showed the same directionality of effect and a consistently significant outcome. But the nature of these experiments is such that one cannot unequivocally attribute a source to parasites infecting the experimental fish. However, given that the treatment was effective for only the first 1-2 months at sea, and that almost all rivers for which the analysed releases were undertaken were close to salmon aquaculture, the likelihood has to be high that salmon farms contributed to those infestations as the smolts emigrated through coastal waters. In our 2009 WWF report we urged a strongly precautionary approach in assessing the risk to wild and free-ranging fish posed by sea lice on farmed salmon: "... we believe that the weight of evidence is that sea lice of farm origin can present, in some locations and for some host species populations, a significant threat. Hence, a concerted precautionary approach both to sea lice control throughout the aquaculture industry and to the management of farm interactions with wild salmonids is expedient" (Paper 9). The salmon aquaculture industry has long placed high priority on the control of parasites on their captive salmon but the minimization of interactions between wild and farmed stocks remains a challenge.

References


Written submission from the Wester Ross Area Salmon Fishery Board

The Wester Ross Area Salmon Fishery Board fully endorses the response made by the Association of Salmon Fishery Boards to the Rural Affairs, Climate Change and Environment Committee on the Aquaculture and Fisheries (Scotland) Bill – Stage 1 dated November 2012.

- At the same time, the board notes the following points as of particular concern:
  
  - It is essential that fish farms are obliged under this new statute to disclose their lice and treatment figure and methods (e.g. amounts and chemicals used).

  And that, therefore, the new law should make SEPA obliged to take action to reduce biomass where the above figures are outside pre-agreed parameters.

- Despite a considerable majority of responses in favour of the consultation question relating to powers to revoke consents, the Marine Scotland response of “we do not intend to progress these proposals at this time” hardly qualifies as an explanation for its non-inclusion. WRASFB is strongly in favour of the inclusion of this power within the Act as a necessary requisite to counter-balance permanent planning permission for aquaculture sites that may not be, longer term, as well situated as at first considered.

Written submission from the Association of Salmon Fishery Boards

Submission endorsed by:

Kyle of Sutherland District Fisheries Board
Helmsdale District Salmon Fisheries Board
The Outer Hebrides Fisheries Trust
Western Isles District Salmon Fisheries Board
Urr District Salmon Fisheries Board
Netherdale Estate
Salmon & Trout Association
Kyle of Sutherland DSFB and the Kyle Fishery Trust
Nith District Salmon Fishery Board
The River Deveron District Salmon Fishery Board
Bell Ingram
Argyll District Salmon Fishery Board
The Wester Ross Area Salmon Fishery
The Tay District Salmon Fisheries Board
Beauly District Fishery Board
Findhorn District Salmon Fishery Board

Introduction

The Association of Salmon Fishery Boards is the representative body for Scotland's 41 District Salmon Fishery Boards (DSFBs) including the River Tweed Commission (RTC), which have a statutory responsibility to protect and improve salmon and sea trout fisheries.

We welcome the opportunity to comment on the general principles of the Aquaculture and Fisheries (Scotland) Bill.

Overarching Comments

1. There appears to be a basic disconnect between the provisions in Part 1 (Aquaculture) and Part 2 (Salmon Fisheries etc.) of the Bill. There is a perception that the underlying principles of fairness and transparency do not apply equally to both sectors. We also believe that there are a number of unintended consequences arising from the somewhat more prescriptive approach adopted towards DSFBs.

2. The Marine Scotland Response to the consultation did not adequately explain why some of the proposals that were consulted on, particularly those relating to aquaculture, have not been taken forward in this Bill. Whilst we have now received further clarity on the other mechanisms by which these proposals might be taken forward we would seek further assurance that these proposals will be acted upon, and a clear timetable for doing so should be set out. In the absence of such assurance, we would seek to have a number of those proposals (which were all supported by a wide cross section of stakeholders) included within the Bill.

3. We do not believe that some aspects included in Part 2 of the Bill were specifically consulted on.

Specific Comments

Part 1: Aquaculture

4. Section 1 sets out a requirement for any person who carries out the business of fish farming to be party to either a farm management agreement (where more than one operator is present in an area) or a farm management statement (where a single operator is present). We support this section, which was a clear recommendation of the Healthier Fish Working Group\(^{21}\), but believe that such agreements and statements should be published in a publically accessible manner. We are concerned that the Bill does not contain any requirement for farm management agreements or statements to address/minimise impacts on the receiving marine environment, including impacts on wild fish. We remain concerned

that the existing farm management agreements are extremely variable in size. Whilst we recognise that information and understanding about connectivity between farms and farm management areas is incomplete, it would appear that in some instances, the current farm management area boundaries are not primarily based on reasons of good husbandry, biosecurity and control of sea lice, but rather on operational priorities. On that basis we supported the consultation proposal that Scottish Ministers should have powers to specify FMA boundaries. We understand that Scottish Ministers will be able to specify FMA boundaries where necessary through the provisions in the Bill and the 2007 Act, but confirmation that this is the case would be welcome.

5. We welcome the inclusion of section 2 which will allow the origin of escaped fish to be ascertained, should advancements in genetic, or other technology, allow. We would also note that there is a move in Norway to ensure that all farmed fish are marked with a uniquely numbered tag, with the purpose of identifying the source of escapes under strict liability.

6. We welcome the inclusion of a technical standard for equipment used in fish farming (Section 3). The work of the Improved Containment Working Group has also demonstrated that a significant proportion of escapes are not due to equipment failure, but rather to human error (29.5% of all escapes in 2010). We therefore believe that Section 3 should be amended to ensure that any such standard includes provision for accredited training in the use of such equipment and a requirement to ensure that all personnel operating in Scotland demonstrate competence in the use of equipment.

7. We welcome the provisions relating to the control and operation of wellboats. However, it is not clear, if wellboats present significant issues relating to the prevention, reduction, removal or control of the risk of the spread of parasites, pathogens or diseases, why open water cages are not subject to similar controls.

Other consultation proposals not being taken forward in the current Bill

8. Powers to revoke consents: A power to revoke aquaculture consents is particularly important as our understanding of the interactions between the aquaculture industry and wild salmonids improves. Marine Scotland Science cannot accurately predict the effect of a particular site on wild fish. Given that most developments currently receive permanent planning consent, it is a real concern that such a power does not currently exist. Despite 71% of those substantive responses to the consultation being in favour of such a power, the Marine Scotland response was, 'we do not intend to progress these proposals at this time', with no further explanation.

9. Collection and publication of sea lice data (and information on fish mortality, movement, disease, treatment and production): The publication of sea lice data at an appropriate resolution is one of the key issues for wild fisheries organisations. We believe that the fundamental basis for any
proposed solution must be an ability for wild fisheries managers to assess, at a local level, the success or otherwise of treatment strategies and to be provided with an assurance that, where those strategies have not been successful, management practices will be adapted to ensure that such issues do not reoccur during the next production cycle. Equally we believe that any proposed solution must also allow the aquaculture industry to demonstrate clearly that they are able to, and do, manage sea lice levels within acceptable tolerances without ambiguity or debate. The Marine Scotland response was ‘it is anticipated that this proposal will be progressed through non-legislative means, through improved voluntary reporting. Alternatively the Scottish Government has existing powers to progress the proposals [which also include other information on fish mortality, movement, disease, treatment and production] through secondary legislation’. Our clear preference is for these existing powers to be used to deliver this information. At the very least we would seek a clear assurance that the Scottish Government are willing to use these powers, should such voluntary agreements fail to deliver data at an appropriate resolution. The importance of transparency on sea lice data is highlighted by a recent paper which analysed the results of a number of previously published experiments involving the release of salmon smolts, half of which were treated to protect them against sea lice infestation and the other half were untreated. In these studies, high marine mortality naturally affected both treated and untreated salmon groups. However, the analyses used allowed for the high natural mortality to be accounted for and isolated the estimated loss of salmon recruitment due to parasitism, revealing a large and significant effect of parasites. The authors noted that precisely because natural mortality rates are high, even a proportionally small additive mortality from parasites can amount to a large loss in adult salmon recruitment.

10. Powers to require SEPA to reduce biomass consents: SEPA’s consideration of applications for biomass consents are limited to ‘discharges’ such as fish waste and sea lice treatments and such discharges are not interpreted by SEPA as including sea lice. Marine Scotland Science routinely state that ‘the industry Code of Good Practice takes no account of farm size, or number of farms in an area, in setting threshold levels for sea lice treatments. This may be appropriate when the aim is to protect the welfare of farmed fish but it will not necessarily prevent significant numbers of larval lice being shed into the environment, and posing a risk for wild fish particularly in the case of larger farms or management areas holding a large biomass of farmed fish’. Since the potential increased release of sea lice is not taken into account in SEPA’s decision-making process it is entirely correct that Scottish Ministers should have a power to reduce biomass consents where such action is appropriate for the health of wild fish. The Marine Scotland response was ‘SEPA can already reduce biomass consent in certain circumstances. We will consider further non-legislative solutions and have begun discussion

with SEPA about these matters'. We are not clear whether SEPA could, or would, use these existing powers to reduce the biomass on site in order to protect wild fish and would seek clarity on this issue. We are also concerned that SEPA appear to have only used their existing powers to reduce biomass on a handful of occasions, despite 44% of monitoring surveys between 2009 and March 2012 being deemed by SEPA to be “unsatisfactory” (beyond the assimilative capacity of the local environment).

11. Powers to determine a lower threshold for sea lice levels above which remedial action needs to be taken: The absolute number of sea lice released from a farm is more important than the relative number of lice per fish (the basis of the Industry Code of Good Practice). We therefore believe that threshold lice levels should be changed to take into account farm biomass and the cumulative biomass in the local area in order to minimise risks to wild fish. We are aware that the industry already used a much lower treatment threshold than that set out in the CoGP in some areas. This is important, in order to protect wild fish, not for the health and welfare of the farmed fish. Marine Scotland believe that this can be delivered through existing powers but we would seek further clarity about how and when this will be taken forward.

Other issues relating to part 1

12. Enforcement notices under Section 6 of the Aquaculture and Fisheries (Scotland) Act 2007 allow Scottish Ministers to require the execution of such works, or the taking of other steps, with the purpose of the prevention, control or reduction of parasites. However, we have been informed by the Fish Health Inspectorate that any such notices are limited to observed problems with farmed fish and such notices cannot be utilised for the purpose of protecting wild fish. We do not believe that the 2007 Act specifically precludes such action, but if this is the case, we believe that the 2007 Act should be amended to allow such action to take place for the health and welfare of wild fish. We also believe that, related to point 8 above, the Fish Health Inspectorate should be given full access to the industry fish health management database operated by SSPO.

Part 2: Salmon Fisheries etc.

13. Section 20: Section 20 includes a number of amendments to the 2003 Act in relation to good governance. Whilst many of the provisions relating to governance look reasonable, we are concerned that opinions on many of the specific provisions in the Bill were not sought during the consultation. The consultation asked three questions in relation to these issues: Do you agree that we should introduce a specific duty on Boards to act fairly and transparently?; Do you agree that there should be a Code of Good Practice for wild salmon and freshwater fisheries?; If yes, do you think such a Code of Good Practice should be statutory or non-statutory?

14. We have no difficulty with the principle of publishing annual reports and audited accounts and indeed we encourage our members to do so via the
DSFB’s Code of Good Practice. We would note that whilst we have no difficulty with providing copies of these documents to Scottish Ministers, this aspect was not consulted on.

15. Whilst we have no difficulty with the principle of open meetings, it is important and legitimate that some aspects of meetings can be held in private (e.g. when discussing deployment of bailiffs, CCTV cameras, staff wages etc.). It is also important that DSFBs are able to raise contentious ideas, which may never be taken forward, without concern that these would be taken out of context, given undue weight, or misinterpreted as DSFB policy if aired in a public meeting. Without clear guidance about what it is acceptable to discuss in private (as permitted by section 20 – 46C(6)), this provision could have the result of inhibiting discussion within meetings. Ultimately, potential Board members in districts in which there are particularly contentious issues to be faced may even be put off from volunteering and giving up their time. We are aware that identifying potential volunteers is already an issue in some districts. The RACCE Committee will discuss its Stage 1 report in private but we are not aware that the Committee operates under a requirement to state their reasons for meeting in private as is set out in the Bill for DSFBs. We would again note that, although the consultation document stated that a Code of Good practice could include recommendations for Boards to hold meetings in public, there was no consultation on a legal requirement to do so. The cost of moving these meetings to a venue with sufficient capacity for members of the public, would involve a significant expense, which may prove disproportionate for many of the smaller DSFBs. In addition, some DSFBs operate over considerable geographical areas. For example, if the Argyll DSFB (total income through privately-funded levy system - £58,000) was required to advertise 4 meetings a year in all three local papers within that district, the annual cost of such advertisement would be £3,200. We would therefore seek clarity on exactly how such meetings should be publicised. A partial solution would be that the annual meeting should be a public meeting, and that there should be an opportunity for the public to attend part of all other meetings and submit proposals to be considered. Finally, we understand that the reference to ‘salmon anglers’ in Section 20 - 46C(2)(c)(i) is a drafting error, and should read ‘representatives of salmon anglers’.

16. If necessary ASFB will work with Marine Scotland to help DSFBs set up a formal complaints procedure, where such a procedure is not already in operation. However, it should be noted that the processing of such complaints will usually be undertaken by the clerk to the Board. In the case of smaller boards, many employ clerks who are paid at an hourly/daily rate. If processing complaints (which may be ill-founded or arise from single-issue ‘campaigns’) becomes arduous, this will result in resources being diverted from other areas of operation. It is worth noting however, that this provision was not consulted on, or even mentioned in the consultation document, and indeed, there is a fundamental question as to why such a statutory provision is necessary. Should such a procedure be deemed necessary, we are not aware of any public bodies
operating under a requirement to publish the number of complaints and a statement of the nature of each complaint and how it was disposed of. This aspect of the proposal appears to be unnecessarily prescriptive.

17. Section 20 includes an open-ended power for Scottish Ministers to modify the good governance requirements by order. We do not support such potentially wide-ranging changes being delivered through secondary legislation and we believe that any future changes should be subject to proper parliamentary scrutiny. If, for example, this power is used to prescribe DSFB functions in legislation, DSFB donations to Fishery Trusts (which totalled £610K in 2010) would have to be linked to specific services and therefore subject to VAT. This, coupled with the potential additional costs outlined above, could have a significant negative effect on the core funding of fishery trusts across Scotland.

18. The Aquaculture and Fisheries (Scotland) Act 2007 contains a provision that Scottish Ministers may by order approve any code of practice issued for the aquaculture industry. In our consultation response, we supported a similar approach being adopted towards the DSFB Code of Good Practice, and indeed this approach was specifically highlighted by Marine Scotland in the consultation. We would therefore suggest that this approach would be more proportionate and would allow us to deal with some of the possible consequences highlighted above. We would of course be very happy to work with Marine Scotland officials to ensure that the ASFB Code is consistent with the principles outlined in the Bill. We would be content for the Ministerial Power to dissolve the committee constituting a board to remain, in an amended form, to reflect the above approach.

19. Section 21 includes a duty to consult and report before making certain applications. We have no difficulty with this provision in principle, but we have some concerns about the requirement to publish details in a newspaper on three occasions during the process.

20. We welcome the inclusion of a power to introduce a carcass tagging system in Scotland but we believe that this provision should be delivered in primary legislation. Carcass tagging was a clear recommendation of the mixed stock fisheries working group and there was overwhelming support for this provision in the consultation. Whether delivered via primary or secondary legislation, we would seek a clear assurance that a statutory system, using individually numbered, recorded tags, will be in place in time for the 2014 salmon fishing season. Any system which does not use numbered tags would not allow verification of catch data, nor would it prevent illegal sales of fish from other parts of the United Kingdom (where tags are numbered) or of fish caught by rod and line (sales of which are banned by the 2003 Act). Equally, DSFBs are strongly in support of a national carcass tagging system for all rod caught fish not returned to the river. We believe that carcass tagging of rod caught fish would be a useful tool to aid DSFBs in ensuring compliance with their conservation policies.
21. We welcome the inclusion of a power to take fish or samples for analysis. Genetic analysis is a key tool in modern fisheries management and will enable rational management decisions to be made. We believe that genetic samples can be taken without killing the fish in question but where such sampling would be likely to involve killing fish we consider that the local DSFB should be fully consulted prior to sampling taking place.

22. Section 25 provides that Scottish Ministers can impose requirements on DSFBs and proprietors in relation to the monitoring of certain orders. We believe that monitoring of such orders is consistent with evidence-based management and on that basis we are supportive of this in principle. However, this section also makes failure to monitor and evaluate the effects of an order a criminal offence, on which a DSFB may be convicted on the evidence of one witness. This appears to be totally disproportionate, and again, may result in potential Board members being put off from volunteering and giving up their time. Finally, we believe that there would need to be a degree of proportionality in placing monitoring requirements on a DSFB, due to the potential expense and/or expertise required to carry out such monitoring, particularly in the case of smaller Boards. We would be concerned if Scottish Ministers were to take out an order at their own initiative, and then impose a legally binding requirement to monitor such an order on that Board. We therefore believe that s25 should only apply where a DSFB or proprietors have applied to Scottish Ministers for such an order.

23. Section 26 includes an open-ended power for Scottish Ministers to vary the procedures for various orders. As we stated earlier, we do not support such potentially wide-ranging changes being delivered through secondary legislation and we believe that any future changes should be subject to proper parliamentary scrutiny.

24. Section 28 includes a power for Scottish Ministers to modify DSFBs functions with respect to consenting of introductions (stocking). Such regulations may specify circumstances or cases where the consenting function is to be exercised by Scottish Ministers or when applications for consent should be referred to them. We note that Scottish Ministers already have jurisdiction over fish introductions in those parts of Scotland which are not covered by DSFBs. In addition, Scottish Ministers have jurisdiction over introductions of other freshwater species throughout Scotland. However, we are not aware of any evidence to suggest that the use of such regulatory powers is significantly better in those areas of Scotland under the jurisdiction of Scottish Ministers. Indeed, we would argue that some of the most concerning examples of questionable practice occur in these areas. We therefore believe that, should this power be exercised, that all decisions on stocking (all species) should be considered by a panel of independent stakeholders, prior to the granting of consent.
**Other issues**

25. Purchase of rod caught fish: It is illegal to sell rod caught fish but it is not illegal to purchase rod caught fish. Once we have a statutory system of carcass tagging in place, we believe that it should be illegal to both sell and purchase an untagged fish.

26. Consenting of activities: At present, the powers of DSFBs to consent certain fishery management related activities e.g. electro-fishing and collection of broodstock for hatchery operations, which would otherwise be illegal are only exercisable out with the annual close time. During the close time, DSFBs must apply to Scottish Ministers for authorisation for these activities. Annual close times were historically set and based on the commercial salmon fishing season with an extension beyond such close times for rod and line fishing and whilst this definition of the salmon season may have made sense historically, when salmon netting was the major part of the sector, this is no longer the case. As the vast majority of fishery districts have little or no netting activities it seems incongruous, and a waste of scarce resources, for DSFBs to apply to Scottish Ministers for exemptions from certain offences to undertake activities, which include essential fisheries management techniques such as electrofishing, during the annual close time, when they do not have to do so at any other time. This places an unnecessary burden on all parties and so we propose that the period over which DSFBs can consent such activities should be extended throughout the year.

27. An end to fishing during weekly close times: It is an offence to fish or take salmon during the weekly close-time for net fisheries (6pm Friday – 6am Monday). In the case of fixed engine salmon fisheries (bag or stake nets), this is achieved by removing the ‘leader’, a net positioned perpendicular to the shore which diverts fish into the salmon net. Removal of the leader prevents fish from entering the nets. It has become apparent that, in some parts of Scotland, the weekly close time is often not being observed if, for example, rough sea conditions make it too dangerous to remove the leader. This happened on a large number of occasions throughout Scotland in 2012, equating to a significant increased exploitation of fish. We are content that exceptions to the weekly close time should exist and indeed ASFB do not want to see anyone’s life being put at risk. The weekly close times were put in place for sound conservation reasons and were designed to allow a proportion of the salmon run to have free passage into their natal rivers throughout the season. Therefore we believe that, where the close time cannot be adhered to for reasons of health and safety, the leaders should be removed for a corresponding period at the earliest next opportunity. Implicit in this, is a requirement for netsmen to report all such occurrences when leaders are not removed. We understand that SNFAS have suggested an alternative solution, whereby the weekly close time would be abolished and a minimum number of days at sea would be introduced. We do not support this solution for a number of reasons. Such a solution would not allow free passage of fish to their natal rivers throughout the season, would permit
additional exploitation on the fragile spring stock component (considered by Marine Scotland Science to include all fish entering the rivers before June) and would result in a considerable increase in exploitation from 128 days to 150 days. This would be absolutely contrary to internationally accepted best practice and agreements on mixed stock fisheries. It would also be unacceptable for such a solution to set a minimum rather than maximum a number of days at sea.

28. The North Atlantic Salmon Conversation Organisation\textsuperscript{23} has successfully negotiated reductions in salmon fisheries in their marine feeding grounds in the North Atlantic. Recently, Mixed Stock Fisheries (MSFs - any fishery taking fish from 2 or more rivers of origin) have come under increased International scrutiny. NASCO’s success in achieving tight restriction of traditional high seas MSFs near Greenland and the Faroes has led to increasing pressure on all parties to the Convention for the Conservation of Salmon in the North Atlantic Ocean to address MSFs in their home waters. As we expect Greenland and the Faroes to adhere to the current tight restrictions on their fisheries, we must keep our own house in order – it would be a disaster for Scottish salmon fisheries if these high sea fisheries were to resume. The operation of MSFs is contrary to internationally accepted best practice because they prevent management of the resource on an individual catchment basis. However, Scotland is in a unique position because all salmon fishing rights are private heritable rights. It is easy to portray the issues surrounding MSFs as simply an argument between rod fisheries and net fisheries (and this issue has been portrayed as the laird against the working man), but in reality this is simply an issue of sound management. Marine Scotland Science has stated that the decline in netting effort over the last 30 years has acted as a buffer for the rod fishery in the face of declining marine survival of fish. Rod fisheries have responded through increasing rates of catch and release (in 2011, the overall catch and release rate for salmon was 73%, rising to 91% for spring salmon). However, there is significant potential for netting effort to increase in future and indeed, the high price of wild salmon and sea trout has meant that a number of previously dormant or lightly fished stations have re-opened. Indeed our analysis of the district assessors’ valuation roles shows that there are at least 129 dormant netting stations which have the potential to come back into operation. ASFB believe that, when a netting station is put up for sale, or is to be leased to a third party, the relevant DSFB should, in the interests of salmon conservation, have a statutory right of first refusal to purchase (or lease) that netting operation before any proposed sale (or lease) could proceed. Such a right would also not be prejudicial to the fishery owner who would still have to receive appropriate compensation for the value of the fishery, thus protecting the private heritable rights of the fishery owner. It would not prevent such fisheries continuing to operate, but would prevent a significant increase in commercial exploitation, which flies in the face of internationally accepted best practise.

\textsuperscript{23} NASCO: Established under the Convention for the Conservation of Salmon in the North Atlantic Ocean in October 1983
29. The need for the equitable burden of conservation was recognised by the Mixed Stock Working Group. There is currently an imbalance in that burden between the exploiters of the resource. In 2010, net fisheries accounted for over 45% of the retained catch, but only contributed 1.3% of the total funding raised by DSFBs for fishery management. As a specific example, the RACCE committee has visited both the River Dee, and Usan Salmon Fisheries Ltd. The Dee DSFB operates a policy of 100% catch and release and puts significant investment (both private and public funding) into the health of the river, with significant wider environmental benefits. However, recent work by Marine Scotland Science on the South Esk Fisheries Management Demonstration Project has shown conclusively that a significant proportion of the commercial catch at Usan, originated from the River Dee. Despite this exploitation, the Dee DSFB receives no contribution for fishery management from Usan.

Written submission from Rivers and Fisheries Trusts of Scotland (RAFTS)

Submission endorsed by:
The River Don Trust

Introduction

Formed in 2005, Rivers and Fisheries Trusts of Scotland (RAFTS) is an independent freshwater conservation charity representing Scotland's national network of 25 rivers and fisheries Trusts and Foundations. Our members work across over 90% of Scotland's freshwaters to protect and develop our native fish stocks and populations by undertaking a range of activities including freshwater, river habitat restoration, fish and fisheries monitoring, research and education programmes. RAFTS is the membership organisation of the fisheries and rivers trusts operating in Scotland and is, itself, a charity and company limited by guarantee.

In recent years RAFTS and members have worked closely with Government and its agencies and advisors, particularly Scottish Natural Heritage (SNH), Scottish Environment Protection Agency (SEPA) and Marine Scotland Science (MSS), in a number of freshwater, fishery and biodiversity issues. This has allowed fishery and river trusts with RAFTS to make a positive contribution to the conservation and management of Scotland’s freshwaters in areas such as fishery and biosecurity planning, invasive non-native species management, education, salmon genetics, habitat restoration and work on non-salmonid fish species such as eels, sparling, and brown trout.

We welcome the opportunity to comment on the general principles of the Aquaculture and Fisheries (Scotland) Bill.

Overarching Comments

Whilst we support the general intentions of the Bill to promote the principles of fairness and transparency in the operation of District Salmon Fisheries Boards
(DSFBs) in Part 2 of the Bill we are concerned that these same principles do not appear to be reflected in the provisions of Part 1 in respect of the aquaculture industry; particularly in respect of reporting of sea lice numbers where wild fisheries have a direct interest due to the interactions between sea lice and wild fish.

We do not feel that the Marine Scotland Response to the consultation fully explained why some of the proposals consulted upon, particularly those relating to aquaculture, have not been taken forward. Although there may be other mechanisms available to take forward such proposals it would be helpful for these to be confirmed and a timetable for implementation to be provided. Without such confirmation, we would prefer that these proposals, supported by the majority of significant respondents to the public consultation, be included within the Bill.

We do not believe that some aspects included in Part 2 of the Bill were specifically consulted on.

**Specific Comments**

**Part 1: Aquaculture**

S1 sets out a requirement for any person / fish farming business to be part of a farm management agreement or statement. We support this proposal but believe that such agreements / statements should be publicly accessible so that the terms of each and compliance with these terms can be transparently considered. We also consider that existing farm management agreement areas (FMA) are extremely variable in size and are based on aquaculture operational priorities and not necessarily principles of good husbandry, biosecurity and control of sea lice numbers which would enhance wider environmental management and protection. For that reason we supported the proposal that Ministers should have powers to specify FMA boundaries.

We support inclusion of Bill provisions which allow the origin of escaped fish to be determined by the use of genetic or other tools. We are concerned about the risks of genetic introgression from farmed fish escapes into wild fish populations and the identification of the source of escapes would be helpful in supporting the improvement of stock containment on farms if problems are systemic and also allow liabilities to be determined.

We support the inclusion of a technical standard for equipment used in fish farming. However, as a significant proportion of escapes are due to human error (29.5% of all escapes in 2010) we believe that the technical standard should also require accredited training in the use of equipment for fish farm staff to demonstrate operational competence of operators as well as technical competence of equipment.

We welcome the provisions relating to the control and operation of well boats but are not clear as to why open water cages are not subject to similar controls as they would seem to present the same risks to the wider enviroment.
Other consultation proposals not being taken forward in the current Bill

Powers to revoke consents:

A power to revoke aquaculture consents is important. Currently we do not fully understand or are unable to quantify the range of actual or potential interactions between aquaculture and wild salmonids. However, most aquaculture sites currently receive permanent planning consent and so there is a risk that some of these sites may present an unacceptable risk to wild fish or other areas of the environment which is only identified or quantified in the future and which cannot be mitigated. In such circumstances it would seem reasonable to ensure that there is a power to revoke consent from such sites. Although the large majority of substantive consultation responses supported the introduction of this power Marine Scotland have confirmed that they do not wish to progress this proposal. The reason for this decision is not apparent.

Collection and publication of sea lice data:

Publication of sea lice data at an appropriate local management scale is one of the key wild fisheries issues in relation to aquaculture as managing and limiting the interaction between sea lice derived from aquaculture and wild fish is critically important to ensuring sustainable wild fish stocks. We believe that publication of sea lice data must take place at a local scale and must demonstrate to the public and wild fisheries managers that lice treatment strategies are being applied robustly and, when threshold values are reached, that these strategies are effective. If successful lice management cannot be demonstrated then management practice on sites should be revised as a result.

Reciprocally, publication of lice numbers and management actions by the industry should clearly demonstrate that the fish farm is able to manage the issue effectively and provide confirmation of this to their reputational benefit. Although Marine Scotland proposed to progress this issue by non-legislative and voluntary means we would strongly prefer a legislative solution to be developed. We are concerned that voluntary agreements may fail to deliver necessary data at appropriate scales or frequencies and that ongoing provision cannot be relied upon in the event of dispute. The importance of transparency on sea lice data has been highlighted recently which analysed results from previously published experiments involving release of both treated (from lice infestation) and untreated salmon smolts. Although high marine mortality naturally affected both treated and untreated salmon groups the study allowed and accounted for this natural mortality and still revealed a large and significant effect of sea lice parasites on adult salmon returns. When natural mortality rates are high, even small additional mortality from parasites can present a large loss in adult salmon returns.

Powers to require SEPA to reduce biomass consents:

SEPA biomass consents do not include consideration of sea lice numbers. Marine Scotland Science routinely state that the industry Code of Good Practice takes no account of farm size, or number of farms in an area, in setting threshold levels for sea lice treatments.

These positions in combination mean that the current systems of protection (SEPA Regulation and the industry Code of Good Practice) do not adequately protect wild fish and so we agreed that Ministers should have a power to reduce biomass consents where such action is appropriate for the health of wild fish.

We are not clear whether SEPA could, or would, use any existing powers to reduce the biomass on sites to protect wild fish would seek clarification from SEPA that they consider this to be the case. To date, SEPA appear to have used existing powers to reduce biomass in a very small number of occasions, despite 44% of monitoring surveys between 2009 and March 2012 being deemed by SEPA to be “unsatisfactory”.

Powers to determine a lower threshold for sea lice levels above which remedial action needs to be taken:

We consider that the total or absolute number of sea lice released from a farm is more important than the relative number of lice per fish and, therefore, believe that threshold lice levels should be changed to take into account farm biomass and the cumulative biomass in the local area to better protect wild fish populations. In simple terms, the existence of many or many large farms in proximity is likely to introduce more sea lice into the environment, even when retaining lice numbers at thresholds below that requiring management intervention, than a small or many small farms who are unable to control lice numbers in this way. Therefore, the option to determine lower thresholds after considering farm and cumulative biomass is important and necessary.

The aquaculture industry already use lower treatment thresholds than proposed in their Code of Practice in some areas and this is welcomed. This is an important action to better protect wild fish and although Marine Scotland consider that this provision can be take forward or implemented more routinely using existing powers we are unclear as to how and when this will be the case.

Other issues relating to part 1

Enforcement notices under S6 of the Aquaculture and Fisheries (Scotland) Act 2007 allow Ministers to require work or measures to control or reduce the impact or effect of parasites. We understand from the Fish Health Inspectorate that they interpret that these notices are limited to observed problems with farmed fish so cannot be used to protect wild fish. We do not believe that the 2007 Act specifically precludes action to protect wild fish but,
if this is the case, we suggest that the 2007 Act should be amended to notice issue to protect farmed and wild fish.

Part 2: Salmon Fisheries etc.

Section 20:

We support the general move to ensure the better governance of the operation of DSFBs. However, we are concerned that many of the specific proposals of the Bill were not offered for consideration in the public consultation exercise and so do not consider the views of those principally involved in these provisions directly or indirectly.

We understand that the publication of annual reports and audited accounts by DSFBs is already supported by the Code of Good Practice issued by ASFB to its members and support this. We also support the principle of DSFB meetings being open to the public as long as appropriate safeguards allow private discussion of sensitive issues. Such issues might usefully specified to provide clarification to all parties.

Although generally supportive of the principles and intent of the Bill to make the operation of DSFBs more transparent and consistent we have significant concerns as to the actual consequences of the Bill provision if not taken forward proportionately. DSFBs raise their own funds to better and locally manage the fisheries of their District. In many, but not all instances, DSFBs work closely with local rivers or fisheries trusts (RAFTS members) who deliver evidence, data and information to support decision making or who deliver practical conservation measures and practice directly to the benefit of the catchment and often supported by other partners and funding in addition to that provided by a DSFB. If resources of the local DSFB are being diverted on a disproportionate basis towards the governance and transparency provisions proposed and where the penalties (criminal charges) are so severe for individuals providing time to DSFBs we are concerned that there may be consequences both in terms of the resources which remain to support local management and the willingness of any proprietor to take up a DSFB position. Both outcomes would reduce the volume of management work possible on any catchment or even threaten whether a DSFB would exist at all. Many RAFTS members may also be affected as the support provided by DSFBs to many trusts would be reduced if available at all.

The end result here is a genuine threat to the delivery of local management provided within the current administrative and funding model. Whilst it is legitimate to look to improve practice and, if necessary, revise or remove powers it is not clear that the consequences of some of the changes have been fully considered in terms of the actual provision of management within current systems. If any DSFB were to consider the Bill provisions to be too onerous there is nothing to prevent them dissolving the Board itself and so the desired outcome of better and transparent evidence based local management is lost. It is not clear what the response of Ministers would be to this scenario as no alternative management structure or funding model is presented for
consideration. It is assumed that the objective is to improve the current management system to make it more fit for purpose as no alternative proposition is set out. However, if the balance of proposals is not carefully considered the current arrangements, which are often effective and affordable when working well, may be lost with no alternative management or financial model available or proposed to replace it.

We would support the proposal made by ASFB that adoption of the DSFB Code of Good Practice may provide a proportionate mechanism to secure the necessary improvements to DSFB practice and transparency as an alternative to some of the Bill provisions set out.

We support and welcome the provision of a power to introduce a carcass tagging system in Scotland but believe that this should be delivered in primary legislation. Carcass tagging was recommended by the mixed stock fisheries working group and overwhelmingly supported in the Bill consultation. Regardless of the mechanism used we would hope that a statutory system, using individually numbered and recorded tags, can be put in place quickly.

In our view numbered tags are essential to this measure as without this refinement the system would not allow verification of catch data, prevent illegal sales of fish from other parts of the UK or of fish caught by rod and line. We understand that the ASFB and DSFBs are strongly in support of a national carcass tagging system for all rod caught fish not returned to the river and believe that carcass tagging of rod caught fish would help ensure compliance and delivery of local conservation policies.

We support and welcome the provision of a power to take fish or samples for analysis. Genetic analysis is an important and developing tool in modern fisheries management which will support evidence based management decision making in the future and which is already being used by fishery trusts and fishery boards to, for example, determine the effectiveness of hatchery and stocking programmes.

S28 includes a power for Scottish Ministers to modify DSFBs functions with respect to consenting of fish introductions (stocking). RAFTS and its members wish to ensure the sound regulation of all fish movements and introductions in Scotland and note that Scottish Ministers also currently regulate for salmon and sea trout where there is no DSFB and for all other freshwater fish in this area.

Regardless of the regulatory body we would wish all fish introductions to;

- Be informed by competent scientific advice which may be provided by a fishery trust but not necessarily so. It is essential that advice is taken and used appropriately;
- Be recorded and available for inspection;
- Have a sound management objective and outcome and have an associated monitoring and assessment programme.
We are content with the current regulatory system when it is operated competently by the regulator. It is our view, however, that there are deficiencies in the current system as operated by both DSFBs and Marine Scotland that should be resolved comprehensively, perhaps by the introduction of a public register of all decisions with the publication of certain agreed information, justification and evidence associated with each introduction and by the formation of an independent or expert panel to ensure decision making is robust.

**Other issues**

*Purchase of rod caught fish:*

It is illegal to sell rod caught fish but it is not illegal to purchase rod caught fish. When a statutory system of carcass tagging is in place it should be illegal to both sell *and* purchase an untagged fish.

*Consenting of activities:*

In order to deliver administrative efficiencies to DSFBs and Marine Scotland and to allow local management practices such as electro-fishing surveys to be consented as required we support a proposal which allows DSFBs to consent such activities across the year.

*An end to fishing during weekly close times:*

It is an offence to fish or take salmon during the weekly close-time for net fisheries (6pm Friday – 6am Monday). We do not support an end to the current close time arrangement which provides a consistent and clear mechanism to support the conservation and management of exploitation of salmon stocks across the season.

*Mixed stock fishery expansion:*

The operation of MSFs is contrary to internationally accepted best practise because they prevent management of salmon stocks on an individual catchment basis. MSFs, accepting the natural "straying" of fish between catchments, are essentially net fisheries. Currently, there are many dormant netting stations which could be brought back into operation and increase the MSF effort in Scotland. Such expansion would be contrary to agreed conservation principles and so a mechanism is required which prevents the uncontrolled expansion of this effort but protects the heritable rights of the fishery owner and provides for appropriate compensation to be paid if operation of such fisheries is deemed inappropriate in the future.

There is currently an imbalance in the financial contributions made to conservation and management by the exploiters of the resource. In 2010, net fisheries accounted for over 45% of retained catch, but contributed 1.3% of the total funding raised by DSFBs for fishery management. We believe that to
sustain and develop the current system of evidence based management a means of redressing this imbalance should be sought.

Written submission from Scottish Environment LINK

Submission endorsed by:

Marine Conservation Society
National Trust for Scotland
RSPB Scotland
Scottish Ornithologists' Club
Scottish Wildlife Trust
Whale and Dolphin Conservation
WWF Scotland

Scottish Environment LINK is the forum for Scotland's voluntary environment organisations, with over 30 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society. We welcome the opportunity to offer views on the general principles of the Aquaculture & Fisheries (Scotland) Bill. This response has been prepared on behalf of LINK Marine Taskforce and is focused on Part 1 of the Bill: Aquaculture.

We believe Scotland should aim to become a world leader in best practice, promoting the highest possible environmental standards whilst recognising the need to secure a vibrant economy supported by the contributions of both aquaculture and freshwater fisheries that must operate alongside each other in many areas.

Our response to the consultation\(^{25}\) outlined our general support for many of the proposals. While we can support the general principles of this Bill, we are of the view that its provisions must be complemented by proceeding with a number of the proposals set out in the consultation. We understand that a number of these proposals can be progressed through existing powers and we request a firm commitment from Government that these be implemented without delay.

Context

It is important that the Committee consider this Bill within the wider marine policy and legislative context, in particular the Marine (Scotland) Act 2010 and the provisions concerning marine planning, which once established will provide a framework for the sustainable development of all industries and activities throughout Scotland’s seas. Marine planning is fundamental to ‘pillar one’ (wider seas measures) of the Government’s three pillar approach to marine nature conservation. Marine planning can assess how multiple uses of

the marine ecosystem can proceed whilst operating within the carrying capacity of the marine environment, which is of particular relevance to the aims of this Bill in managing interactions between wild and farmed fish.

Appropriate risk-based site selection for fish farms is a key factor in managing interactions and can prevent many of the unintended and negative impacts of the industry. The use of science-based sensitivity mapping, for example, to identify suitable locations and guide decision-making will be an important approach in future. Integration of fish farm area management with a strategic marine planning system will also enable full and proper consideration of cumulative and in-combination effects.

We are concerned, therefore, that targets for industry growth\(^{26}\) have seemingly been adopted by Government prior to formal consultation and adoption of a National Marine Plan. Adoption of a National Marine Plan is now unlikely until 2014 with regional plans following in subsequent years. It is therefore vitally important that, in the absence of such a planning system, marine development occurs within the constraints of a robust regulatory regime that ensures environmental protection.

We limit our written evidence on the Bill to the following priority areas.

**Chapter 1: 1 - Fish farm management agreements and statements**

We welcome the inclusion of a statutory requirement for farms to be party to a Farm Management Agreement (FMAg) or Statement (FMS) with sanctions for non-compliance. Area based management has long been identified as the best method of reducing the risk and spread of disease and parasites as well as reducing the use of chemical treatments and their consequent environmental impacts. While such agreements have proved useful in many cases, the lack of a statutory system risks such agreements being undermined. Additionally, in the spirit of openness and transparency we believe Farm Management Agreements should be publically available documents and would benefit from the participation of appropriate stakeholder groups with common interests in the health of farmed and wild salmonids, and the wider environment.

Under the Bill, operators would retain the primary responsibility for determining boundaries of farm management areas (FMAs) under the Code of Good Practice. LINK firmly believes that boundaries for farm management areas must be determined primarily on ecological grounds, taking into account the best available evidence on sea-louse dispersal and connectivity between sites. Where there is limited information a precautionary approach, of selecting larger, rather than smaller boundaries, should be adopted. The proposed boundaries must be suitable to protect the local environmental and ecological features and account for natural geographic features. They must also take account of the relevant cumulative and in-combination effects of connected activities, such as processing plants. The criteria by which a farm

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\(^{26}\) By 2020: To increase the sustainable production of marine finfish at a rate of 4% per annum to achieve a 50% increase in current production
management area boundary has been decided should be publicly available and involve the participation of appropriate stakeholder groups.

We note the inclusion at section 1(6) of a power to modify the definition of the Code of Practice in relation to farm management areas. We understand this provides a power allowing Scottish Ministers to define farm management areas under a separate mechanism if deemed necessary. While we welcome the inclusion of this power, we would welcome a timeline for Government review of the current approach to the delineation of farm management area boundaries to ensure that it remains appropriate in all circumstances.

Chapter 1: 2 – Escapes, and obtaining samples, from fish farms

While we would advocate a goal of zero or near zero escapes – which we believe is achievable through a statutory technical standard for farm equipment and other initiatives such as improved training - LINK believes that it is essential that fish identified as escaped can be traced back to their farm of origin. We understand that genetic tools may now be available and we would support the use and application of such samples so that escapes can be identified and related to the farm or company of origin.

Chapter 2: 3 - Technical requirements for equipment used in fish farming

Escaped farmed salmon have the potential to disrupt ecosystems and alter the overall pool of genetic diversity through competition with wild fish and interbreeding with local wild stocks of the same population. It has been shown that interbreeding of farmed fish with wild fish of the same species can result in reduced lifetime success, lowered individual fitness and decreases in production.27

Escaped farmed salmon must therefore be considered a severe threat to the productivity and long-term existence of wild stocks of Atlantic salmon. The most effective way to address these risks is to reduce the number of escapes of farmed salmon to zero or near zero. This is in line with the international goal of North Atlantic Salmon Conservation Organisation (NASCO) that states ‘100% farmed fish to be retained in all production facilities.’28

We fully support the inclusion of a power allowing Scottish Ministers to prescribe technical requirements for fish farm equipment. This was a key recommendation of the Improved Containment Working Group. However, we believe that, as a high proportion of escapes are caused by human error29, enforceable technical regulations should extend to include training in the operation of equipment as well as its design, construction, manufacture, installation, maintenance or size.

29 30% of all salmon farm escape events in 2011
The Norwegian technical standard (NS 9415) was introduced in Norway in 2004 and specifies requirements for the design of feed barges, floaters, net cages and mooring systems necessary to cope with environmental conditions at fish farm sites. It also includes the handling and use of equipment. The introduction of the standard appears to have resulted in a dramatic reduction in the number of major escape incidents in Norway, principally due to a sharp decline in large-scale escapes resulting from the failure of cages.30

Predation resulting in a hole in the net has accounted for 36% of total escape events at saltwater salmon farms between Jan 2011 (when current reporting of cause of escape was introduced) and Oct 2012.31 Efforts to understand and reduce predator effects, specifically seals, on farm equipment must be prioritised in the development of a technical standard. Ultimately, removing the need to kill seals under licence, for example by requiring tensioned nets or other effective and benign deterrents, would benefit wildlife and improve the public and investor perception of salmon farming, which suffers greatly from the association with seal deaths.

Chapter 2: 4 - Wellboats

It is of serious concern that wellboats are not sufficiently covered by controls to manage the risk of parasites, pathogens or diseases. The enabling legislation in the Bill is therefore welcome but this must be implemented as soon as possible. We understand that the control of discharges from wellboats at fish cage sites could be considered under existing Controlled Activities Regulations licence arrangements and we ask that Government to take this forward urgently.

Additional points:

It is important to note that, in addition to this Bill, there are several strands of policy and secondary legislation in development that aim to address those areas covered by the Aquaculture and Fisheries Bill consultation but were not carried into the Bill itself for a variety of reasons. We raise the following points as we feel it appropriate for the Committee to consider the wider context, including other areas that would support the Bill in achieving the highest environmental standards and understanding, mitigation and managing any wider impacts of fish farming in Scotland.

Publication of sea-lice data

Understanding lice levels on farms and how infestations in farmed salmon relate to incidences in wild salmonids is key to ensuring the sustainability of the industry and requires an appropriately robust response. The extent of such a link remains a hotly debated topic. However, a report to the Salmon Aquaculture Dialogue (co-ordinated by WWF) concluded - “it is not plausible to draw a single over-riding conclusion regarding the potential negative

31 http://www.scotland.gov.uk/Topics/marine/Fish-Shellfish/18364/18692/escapeStatistics
impacts of sea-lice on all wild fish stocks world-wide. Nevertheless, we believe that the weight of evidence is that sea-lice of farm origin can present, in some locations and for some host species populations, a significant threat. Hence, a concerted precautionary approach both to sea-lice control throughout the aquaculture industry and to the management of farm interactions with wild salmonids is expedient."

The data from on-farm sea lice testing provides a critical resource to gain a broader understanding of the impacts on farmed and wild fish so that strategies to control sea lice can be fully assessed and effective ones developed and implemented. LINK therefore strongly believes that the results from sea lice monitoring from individual farms should be publicly available in disaggregated form. The Aquaculture Stewardship Council standards developed by the global multi-stakeholder Salmon Aquaculture Dialogue process determined that the standard should require frequent on-farm testing for sea lice, with test results made easily publicly available within 7 days of testing.

Norway takes a transparent approach to the publication of data, with a greater amount of both sea lice and disease data being publicly available. For example, an overview of aggregated sea lice numbers is available online, and the authorities hold information on individual companies. If a company exceeds the legal sea lice limit the result is made public. This practice is also applied to disease outbreaks. Scotland should at least bring itself in line with Norway and preferably aim to improve further and become a world leader in best practice.

We note that the Government intention is to develop an improved voluntary system of reporting, in discussion with stakeholders. We urge that existing powers be used to make such reporting a statutory requirement.

**Future of the Code of Practice**

The Aquaculture and Fisheries (Scotland) Act 2007 contains the power to adopt the Code of Good Practice in whole or in part. However, this power has never previously been used. We note elements of the Code would become legal requirements under this Bill. Were this Bill to pass, we feel that it would be timely for a multi-stakeholder group to review all elements of the aquaculture Code of Good Practice. Following a review and any amendments needed, the Code could potentially be statutorily adopted. This process could be undertaken by the Ministerial Group on Aquaculture or one of its subsidiary working groups, should future composition of the group reflect the full range of stakeholders with interests in finfish aquaculture.

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33 [http://worldwildlife.org/industries/farmed-seafood](http://worldwildlife.org/industries/farmed-seafood)

34 [www.lusedata.no](http://www.lusedata.no)
Written submission from the Scottish Salmon Producers’ Organisation

Submission endorsed by: Marine Harvest

Overview

The Scottish Salmon Producers’ Organisation (SSPO), whose members are responsible for some 98% of salmon production in Scotland, would like to raise with the Committee a number of points where the Bill (as presented) requires revision. These mainly relate to technical matters that are fundamental to the Bill being relevant and workable in practice, and a few matters of regulatory principle. These points have already been raised with the Scottish Government’s Bill Management Team and we hope that, as part of the Bill’s development, Ministers will bring forward revised text to address the points we have highlighted.

Our concerns relate to seven specific areas of the Bill that relate to aquaculture but we also wish to raise a few matters relating to freshwater fisheries where we believe the Bill has missed significant considerations.

Aquaculture: Bill Matters

1. Fish farm management agreements and statements (This includes Sections 1, 4A and 4B of the Bill)

The SSPO, its forerunner organisations, and its members pioneered the development of the Farm Management Area (FMA) approach and Farm Management Agreements (FMAg), beginning in the early 1990s. These approaches have been fundamental to the development of the Scottish salmon farming industry and have allowed the industry to develop effective area management approaches and biosecurity systems. More recently, the industry has introduced Farm Management Statements (FMS) as a means of embedding the FMA approach in single operator areas. The industry is therefore already wholly committed to the FMA/FMAg/FMS approach and has no objection in principle to this being incorporated into the regulations.

However, the Bill as presented is not sufficiently comprehensive in its area coverage and contains errors of fact and understanding about key elements of the approach. The provisions of the Bill (as presented) are, therefore, too limited, and also would be wholly unfeasible to adopt in practice.

We, therefore, wish to see:

a) The scope of the regulation extended to include all coastal marine fish farming.

b) Recognition on the face of the Bill that the Farm Management Agreements (FMAg) and FMS are plans, which must necessarily be flexible to meet the needs of different businesses and the day to day requirements of farm management. The point of statutory assessment is, therefore, the requirement for an FMAg or FMS to be in place.
c) The present reference to the Code of Good Practice for Scottish Finfish Aquaculture is incorrect. The CoGP is owned and managed by the Code of Good Practice Management Group and deals primarily with industry practice rather than statutory compliance. SSPO recommends that annual reporting on the CoGP (which was abandoned by Marine Scotland during changes to the Strategic Framework arrangements) should be re-established.

2. Escapes, and obtaining samples from fish farms (This includes Bill Section 2 and 5A)

SSPO finds it difficult to justify the provisions in this part of the Bill against the background that scientific research has unequivocally shown that introgression is of very little significance generally, and in Scotland in particular.

However, the Bill (as presented) has a number of technical problems which we consider must be addressed.

a) In section 2 the present wording means that any farm fish found in the wild can potentially trigger samples of fish being taken from every farm in Scotland. This is clearly neither logical nor proportionate. We, therefore, consider powers to sample farms should be limited to those within the catchment area which might be implicated in the escape.

b) In Section 5A

i. Reference to ‘fish or material from fish’ needs to be corrected to the biologically precise ‘fish or fish tissues’.

ii. The purposes for which fish may be sampled should be limited to the purpose of the provision intended, which is to assist in investigations of escaped fish and the risk of impact of escapes from farms on stocks of fish other than those on farms. Speculative excursions in the provisions that go beyond that raise human rights, legal ownership, intellectual property, and commercial competition considerations for business within and beyond fish farming.

3. Technical requirements for equipment used in fish farming (This includes Chapter 2, Section 3).

This section of the bill relates to the development of Scottish Technical Standards specifically for containment, which is being taken forward by an industry led joint working group with the Scottish Government.

We believe that the Bill's provisions should focus specifically on this rather than on equipment in general.

The section raises two important technical flaws:
a) The reference to ‘technical requirements’ in paragraph (1a) and elsewhere needs to be replaced by ‘technical standards’, which is the appropriate point of focus for regulatory control.

b) The reference to ‘-- for equipment’ in paragraph 1(a) is too all-embracing and not consistent with the approach to developing standards. It should be replaced by ‘---- for specified equipment’. This would then properly reflect the Scottish Standards approach.

4. **Wellboats (This includes Chapter 2, Sections 4-7)**

The main issue in this part of the Bill relates to the meaning of ‘wellboat’.

The definition in the Bill (as presented) is not adequate. As stated, it will include not only conventional wellboats but almost all small workboats used on fish farms. This is neither the intention in the regulation, nor is it a tenable position since it would render fish farms almost inoperable.

We have proposed as a definition ‘live fish carrier requiring to have permanent operational life support systems’

5. **Commercially Damaging Species (This includes Chapter 3)**

On the basis that this proposal relates specifically and solely to Mytilus trossulus we have no comment to make on this section.

6. **Charging (This includes PART 5, Section 50)**

There are matters of principle concerning government attempts to charge for its own core functions or seeking to make mandatory charges for services which are already supplied by industry-preferred commercial suppliers.

The Bill is flawed in attempting to introduce new highly-controversial ‘function charges’ on aquaculture and other sectors through secondary legislation made under the negative procedure. We consider that it is essential that the Bill is modified so that each new ‘service’ for which a charging regime is proposed is subject to proper consultation and full Scottish Parliamentary scrutiny through regulations subject to the affirmative procedure.

7. **Fixed Penalty Notices (This includes PART 5, Section 51)**

The salmon farming industry is unconvinced about FPNs, which seem to be being introduced for the convenience of Marine Scotland rather than for any sound legal or financial reason. However, Marine Scotland officials have stated that FPNs will be subject to the same levels of legal rigour as actions to be raised by the Procurator Fiscal.

We believe that the Scottish Government needs to address this matter by: (i) a clear up-front statement of the specific offences to which FPNs will apply; and (ii) by a commitment in the Bill to publish annual statistics relating to FPNs, broken down by type of offence and by industry sector
Aquaculture: Missed Opportunities

We regret that the development of the Bill has not taken the opportunity to review the entire regulatory process for aquaculture as a whole and considered it in line with other Scottish Government policy intentions to promote better regulation. The Bill fails to address issues that would support sustainable industry development and which have been raised by industry. In particular, we identify:

a) Addressing the regulatory overlap between Marine Scotland and SEPA in the regulation of controlled releases of substances from wellboats at pen locations;

b) Opportunities for Ministers to take powers to allow them to instruct SEPA to vary CAR licences where there is a need to treat fish, but where the existing CAR licence prevents this;

c) Addressing the long-standing issue of failure to regard wild fish hatcheries as Aquaculture Production Businesses, thus creating trade discrimination barriers between different types of hatcheries and increasing the risk of introduction of diseased fish into open water.

Salmon Fisheries: Missed Opportunities

The salmon farming companies are becoming increasingly involved in assisting west coast and island fisheries through provision of expertise, facilities and, in some cases, project funding. Also, farmers have an understandable neighbourly interest in wild fisheries management.

We strongly support the principle of developing policy based on scientific evidence rather than unsound, anecdotal information. With regard to the Bill, we believe that provisions could have been included to provide robust scientific investigation to determine if and why wild salmon numbers are declining. The Bill could also make provision to gather river management information, for example, catch statistics in the context of fishing effort which would enable fuller understanding of the environment in which we operate and more sustainable management practices.