1. **Decision on taking business in private**: The Committee will decide whether to take item 5 in private.

2. **Environmental implications for Scotland of the UK leaving the EU**: The Committee will take evidence from—

   Roseanna Cunningham, Cabinet Secretary for Environment, Climate Change and Land Reform, Michael Russell, Minister for UK Negotiations on Scotland’s Place in Europe, Kate Thomson-McDermott, Head of Environment and Agriculture Strategy & Post-EU Referendum Unit, Euan Page, Constitution and UK Relations Policy Officer, and Julie Steel, Project Officer, Energy and Climate Change Strategy Unit, Scottish Government.

3. **Subordinate legislation**: The Committee will take evidence on the Conservation of Salmon (Scotland) Amendment Regulations 2018 (SSI 2018/37) from—

   Roseanna Cunningham, Cabinet Secretary for Environment, Climate Change and Land Reform, Scottish Government;

   Dr John Armstrong, Director of Freshwater Fisheries Laboratory, Marine Scotland Science;

   Simon Dryden, Policy Team Leader, Salmon and Recreational Fisheries, Marine Scotland.

4. **Subordinate legislation**: Liz Smith to move—S5M-11020—that the Environment, Climate Change and Land Reform Committee recommends that the Conservation of Salmon (Scotland) Amendment Regulations 2018 (SSI 2018/37) be annulled.
5. **Environmental implications for Scotland of the UK leaving the EU:** The Committee will consider evidence heard earlier in the meeting.

Lynn Tullis  
Clerk to the Environment, Climate Change and Land Reform Committee  
Room T3.40  
The Scottish Parliament  
Edinburgh  
Tel: 0131 348 5240  
Email: ecclr.committee@parliament.scot

The papers for this meeting are as follows—

**Agenda Item 2**

EU Principles and frameworks Cover Note  
ECCLR/S5/18/10/1

PRIVATE PAPER  
ECCLR/S5/18/10/2 (P)

**Agenda Item 3**

Subordinate Legislation Cover Note  
ECCLR/S5/18/10/3
Introduction

1. At its meeting of 20 February the Committee agreed to invite the Cabinet Secretary for Environment, Climate Change and Land Reform and the Minister for UK Negotiations on Scotland's Place in Europe to an evidence session to explore progress and the implications for environmental protections (including the development of common frameworks, environmental governance and EU principles). The Committee wrote to the Cabinet Secretary and received a response on 22 February.

Background

2. At its meeting of 6 March the Committee took evidence from the Minister for UK Negotiations on Scotland's Place in Europe on the UK Withdrawal from the European Union (Legal Continuity) (Scotland) and EU environmental and animal sentience principles. The Committee has also issued a call for evidence on the EU principles which closes on 29 March and has agreed to hear from the Cabinet Secretary for Environment, Climate Change and Land Reform and Minister for UK Negotiations on Scotland's Place in Europe following consideration of the evidence received.

Common frameworks

3. The UK and devolved governments have agreed on broad principles to guide the establishment of common frameworks that might be required when the UK leaves the EU. SPICe has prepared a briefing on Common UK Frameworks After Brexit.

4. On 9 March 2018, the UK Government published provisional analysis that covering 153 areas where EU laws intersect with devolved competence. There are 24 policy areas that are subject to more detailed discussion to explore whether legislative common framework arrangements might be needed, in whole or in part and 82 policy areas where non-legislative common frameworks may be required.

Environmental governance and the roundtable on the environment and climate change

5. The Scottish Government consulted on environmental justice in 2016, and as part of this sought views on environmental courts/tribunals. The 12-week consultation period ended on 10 June 2016 although extensions were granted until 21 June 2016. The Consultation analysis and Scottish Government response. The Consultation analysis and Scottish Government response (Sept 2017) had a section on Brexit.
6. The UK Government announced proposals to “consult on a new, independent body that would hold Government to account for upholding environmental standards in England after we leave the European Union.”

7. In a letter to the ECCLR Committee on 8th January the Cabinet Secretary referred to the establishment of a group to provide advice to the Scottish Government on environmental governance.

Clerks
Environment, Climate Change and Land Reform Committee.
1. The Conservation of Salmon (Scotland) Regulations 2016 make provision to regulate the killing of salmon in specified areas. The purpose of this is to ensure the killing of Atlantic salmon is managed by assessing and categorising the areas of inland water with regard to the conservation status of the stocks. They specify, for each area, whether retention of caught salmon is prohibited. These regulations also required the Scottish Government to carry out assessments of stock levels and the purpose of the Conservation of Salmon (Scotland) Amendment Regulations 2018 (SSI 2018/37) is to amend the 2016 instrument to reflect the most recent assessment.

2. The Scottish Government has described the process of the development of the instrument on its website, including details of a public consultation. A table of the grading of each river is also available. This table is also included in schedule 2 of the regulations.

3. A copy of the Scottish Government’s Explanatory and Policy Notes are included in Annexe A.
4. The Committee received correspondence from the Cabinet Secretary for Environment, Climate Change and Land Reform, Roseanna Cunningham, Jackie Baillie MSP and the Loch Lomond Angling Improvement Association, all of which can also be found in Annexe B.

5. On 13 March 2018, the Committee took evidence from Scottish Government officials on the instrument. The Official Report of this meeting will be available here from 18:00 on Friday 16 March 2018. During this meeting, officials undertook to provide the Committee with further information and this can be found at Annexe C.

Delegated Powers and Law Reform Committee

6. At its meeting on 20 February 2018, the 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.

Procedure for Negative Instruments

7. 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 Delegated Powers and Law Reform 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. 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 Delegated Powers and Law Reform 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.

Today’s meeting

8. A motion to annul the instrument has been lodged by Liz Smith MSP. Before voting on the motion, the Committee will take evidence on the Regulations from Roseanna Cunningham MSP, Cabinet Secretary for Environment, Climate Change and Land Reform.

Clerks
Environment, Climate Change and Land Reform Committee
Annexe A

Scottish Government Explanatory Note

As per purpose above and including:

Regulation 2(2) to (4) make minor amendments to the principal Regulations. Regulation 2(5) and (6) substitutes schedules 1 and 2 of the principal Regulations. Schedule 1 describes the areas in which Scottish Ministers must carry out, or arrange for the carrying out of, an assessment of the conservation status of salmon. Schedule 2 describes the areas of inland waters where there is a prohibition on the retention of any salmon caught.

Scottish Government Policy Note

Salmon is a protected species under the EU Habitats Directive. In addition, the North Atlantic Salmon Conservation Organisation (NASCO1), to which the European Union is a party, provides guidance that makes it clear that fisheries are best managed on a single river stock basis and that action should be taken to reduce the risks posed by any Mixed Stock Fisheries (those fisheries exploiting salmon from more than one river). Salmon continue to face many pressures in the marine and freshwater environment and there is an ongoing need to ensure and be seen to be demonstrating that any killing of wild salmon in Scotland is sustainable. In addition, greater protection and enhancement of stocks will help to maximise the socio-economic benefits that flow from them.

The Conservation of Salmon (Scotland) Amendment Regulations 2018 amend the Conservation of Salmon (Scotland) Regulations 2016 (‘the 2016 Regulations’) which make provision for the conservation of salmon in Scotland. The purpose of the 2016 Regulations is to ensure that the killing of Atlantic salmon in Scotland is managed by assessing and categorising specified areas of inland water in relation to their conservation status. The 2016 Regulations prohibit the retention of Atlantic salmon caught in any coastal waters in a salmon fishery district and in specified areas of inland waters. In addition, Ministers may agree a conservation plan with the local district salmon fishery board or salmon fishery proprietors, particularly in Special Areas of Conservation (SACs) where stocks have been identified as in a poor conservation status.

1 The Convention for the Conservation of Salmon in the North Atlantic Ocean is a multilateral agreement which came into force on 1st October 1983. Its aim is to promote the conservation, restoration, enhancement and rational management of salmon stocks in the North Atlantic through international co-operation. The EU is one of the contracting parties. One of the measures in the Convention is the prohibition of fishing for salmon outwith the 12 mile zone in coastal States (article 2.2). It also makes general provision regarding the availability, and sharing, of statistics for catch as well as stocks and the provision of scientific data. NASCO, the North Atlantic Salmon Conservation Organisation, is the international organisation established by the Convention.
The 2016 Regulations place a statutory duty on the Scottish Ministers to carry out an assessment of the stock levels for salmon in inland waters for the purposes of establishing the conservation status of salmon in defined areas. Where an area of inland waters includes a SAC, being an area where Atlantic salmon is identified as a species native to a protected habitat under the Habitats Directive, the Scottish Ministers must have regard to the conservation objectives of the SAC when carrying out their assessment. The purpose of the assessment is to determine whether fishing is sustainable in the area in question. The assessment process entails the collation of information on population levels of salmon in each area based on catch statistics.

Since the introduction of the 2016 Regulations, Marine Scotland has engaged with the sector to develop and improve the annual conservation assessment process and the robustness of the data used in the assessment. In the past year, for example, Marine Scotland has processed more than 3,000 proposed changes to the “wetted areas” maps of rivers across Scotland, using data provided by local Trusts and biologists; the number of fish counter sites has increased allowing the assessment model to incorporate greater regional variation in the relation between counts and rod catches data; the model uses a new method to estimate numbers of salmon returning to rivers, using information from a larger number of sites than previously and incorporates information on geographic variations in the relationship between salmon catches and counts; and seasonal and flow-related changes are also incorporated into the model.

Legislative Context

Section 38(1) of the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 (‘the 2003 Act’) enables the Scottish Ministers to make regulations considered necessary or expedient for the conservation of salmon. The Conservation of Salmon (Scotland) Regulations 2016 were made in February 2016 and came into force on 31 March 2016. The Conservation of Salmon (Scotland) Amendment Regulations 2016 reflected developments in the assessment process and came into force on 1 April 2017. The purpose of the current Regulations is to amend the 2016 Regulations to reflect the most recent stock assessment, for the 2018 fishing season.

The Regulations

The Conservation of Salmon (Scotland) Amendment Regulations 2018 amend the 2016 Regulations. Regulation 2(2) amends regulation 1 of the 2016 Regulations to correct minor typographical errors. Regulation 2(3) amends Regulation 3(1) of the 2016 regulations to provide greater clarity and consistency within the Regulations. Regulation 2(4) amends regulation 3(2A) of the 2016 Regulations to replace the reference to “2017” with “2018” to reflect the stock assessment measures for the 2018 fishing.
Regulation 2(5) and (6) substitute schedules 1 and 2 of the 2016 Regulations. Schedule 1 of the 2016 Regulations describes the areas in which Scottish Ministers must carry out, or arrange for the carrying out of, an assessment of the conservation status of salmon. Schedule 2 describes the areas of inland waters where there is a prohibition on the retention of any salmon caught.

Consultation

In accordance with paragraphs 10 and 11 of schedule 1 of the 2003 Act, the Scottish Ministers have consulted with such persons they considered appropriate and have given notice of the general effect of their proposals by way of an advertisement in three national newspapers. The consultation period ran from 15 September to 13 October 2017.

In accordance with paragraphs 12 and 14(1) of schedule 1 of the 2003 Act, Ministers considered 192 representations and objections in relation to the proposals and determined to progress their original proposals subject to the following points:

The documents published for consultation included a table showing that the Forss Water had been assessed as a Category 3 river for the 2018 season – that is, mandatory catch and release would apply. In fact, the detailed assessment of the river correctly showed that Category 2 status should be awarded. The correct position was confirmed to the District Salmon Fishery Board during the consultation period and the Forss Water is not included in schedule 2 as one of the areas where retention of salmon is prohibited.

Following dialogue with stakeholders the Scottish Government reviewed the “outflow points” for three rivers, and the proposed outcomes were included in the public consultation. Having considered representations made on this issue, Ministers have determined to proceed with the proposals as published. Changes to the outflow points for the Kyle of Sutherland (consulted on with reference to the River Oykel) and the Urr Water are reflected in the revised schedules to the 2016 Regulations. With regard to the River Nith, Ministers consider that the proposed change would have a detrimental impact on the conservation status of multiple rivers feeding into the Solway Estuary, which is a mixed stock fishery. On balance, therefore, the Scottish Ministers have not sought to alter the outflow point for the River Nith.

Impact and Financial effects

A Business and Regulatory Impact Assessment (BRIA) has been prepared for these Regulations.

Business and Regulatory Business Impact Assessment
The Conservation Of Salmon (Scotland) Amendment Regulations 2018

Purpose and intended effect

Background
The Conservation of Salmon (Scotland) Amendment Regulations 2018 amend the Conservation of Salmon (Scotland) Regulations 2016 (‘the 2016 Regulations’) which make provision for the conservation of salmon in Scotland. The regulations set out a mandatory catch and release regime for Atlantic salmon caught in coastal waters, and in specified inland waters by prohibiting the retention of salmon. This is the third time that an annual assessment of conservation status has been undertaken. The assessment model for the 2018 fishing season categorised 171 rivers or assessment groups, including 17 Special Areas of Conservation (SACs), according to their conservation status.

Objective
The package of regulatory measures places a statutory duty on the Scottish Ministers to carry out an assessment of the conservation status of salmon in specified inland waters. Where areas include a Special Area of Conservation (SAC) Ministers must have regard to the conservation objectives for that SAC. The purpose of the assessment is to determine whether fishing is sustainable in each area.

Rationale for Government intervention
Salmon is a protected species under the EU Habitats Directive. In addition, the North Atlantic Salmon Conservation Organisation (NASCO), to which the European Union is a party, provides guidance that makes it clear that fisheries are best managed on a single river stock basis and that action should be taken to reduce the risks posed by any Mixed Stock Fisheries (those fisheries exploiting salmon from more than one river).
Salmon continue to face many pressures in the marine and freshwater environment and there is an ongoing need to ensure and be seen to be demonstrating that any killing of wild salmon in Scotland is sustainable. In addition, greater protection and enhancement of stocks will help to maximise the socio-economic benefits that flow from them.

Consultation
Within Government
Discussions took place with Scottish Natural Heritage (SNH), Scottish Environmental Protection Agency (SEPA) and the Crown Office and Procurator Fiscal Service around the early development of these Regulations. In addition, Marine Scotland set up a Local Biologist Liaison Group to coordinate the involvement of local biologists throughout Scotland in refining the data and methods used to determine conservation status.
Marine Scotland and the Salmon Liaison Group (SLG) also have worked closely over
the past year to develop and improve the assessment process and the robustness of the data used in the assessment.

**Public Consultation**
For the 2018 fishing season Ministers, as required by schedule 1 of the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003, published notice of the general effect of the proposed regulations and invited representations and objections over a 28 period in September and October 2017. In addition, more than 1,500 individuals and organisations were alerted by e-mail to the consultation. Some 192 written representations and objections were received from individuals and organisations including angling clubs, district salmon fishery boards (DSFBs), fishery owners and local businesses. Each of these has been considered in finalising the draft amendment regulations. Discussions have been held with those representing fisheries interests on a number of rivers or assessment groups. Key concerns emerging from the consultation included some disagreement and misunderstanding about the assessment process; that the model relies on reported catch data, rather than using juvenile sampling to estimate salmon abundance; the fact that the modelling approach currently makes little provision for geographical or local differences and conditions; and that Category 3 status will lead to a downturn in club membership, with reduced income leading to fewer bailiffs and local conservation initiatives.

**Business**
For the 2018 season we have continued to engage with those sectors directly impacted by the measures, both through regular liaison group meetings and through the public consultation process. The majority of recent representations and discussions have taken place with angling clubs and individuals involved in angling. We did not receive any representations from the wider business sector.

**Options**
A detailed assessment of options was carried out prior to introducing the original Conservation of Salmon (Scotland) Regulations 2016. The Conservation of Salmon (Scotland) Amendment Regulations 2018 give effect to the outcomes of the third annual assessment of the conservation status of salmon. This has been undertaken to meet a previous Ministerial commitment to carry out such an assessment.

**Option 1: Do nothing**
Under this option the current regulations, as amended, would remain in force. These are now based on an out of date assessment. This would not meet Ministers’ commitment to protect and conserve salmon stocks, and would not be addressing concerns expressed by the European Commission about how we are applying the requirements under the Habitats Directive in relation to wild salmon.

**Option 2: Place a greater emphasis on local voluntary conservation measures**
While local voluntary conservation measures have had some success in the past - the practice of catch and release is already widely observed in Scotland with some 90% of all rod caught salmon released in 2016 – such measures are not consistent across Scotland and do not incorporate any evidence that they relate and/or meet the requirements of the Habitats Directive. In addition, the high nature of catch and release Scotland should be seen in the context of continuing concerns around salmon stocks and the need to take more proactive action to protect them. Article 6(1) of the Habitats Directive requires a Member State to establish necessary conservation measures which correspond to the ecological requirements of the natural habitat types and the species which are protected. Such measures must be designed to maintain, or restore, at a favourable conservation status the natural habitats or species protected under the Directive.

Option 3: Statutory measures to manage the killing of wild salmon in Scotland. There is an on-going need to ensure and be seen to be demonstrating that any killing of Atlantic salmon is sustainable. In addition, greater protection and enhancement of stocks will help to maximise the socio-economic benefits that flow from them. Salmon continue to face many pressures in the marine and freshwater environment.

Sectors and groups affected

Grade 3 categorisation – mandatory catch and release
A number of angling clubs have concerns about a reported decline in the renewal of club memberships because of the inability to kill a salmon (but still the ability to fish) and in spite of the current high levels of catch and release across Scotland. While such concerns have been expressed in response to the recent public consultation, none of those responding provided a detailed assessment of such impact. In addition, this concern should be viewed against a long term trend away from annual membership and towards a more flexible “day ticket” approach to angling.

To help mitigate the impacts of the conservation measures on angling clubs Ministers have provided funding of £100,000 over the period 2016-18 to support angling clubs through the promotion of catch and release as a sustainable and responsible practice through our partner organisation FishPal. To date, around 80 angling clubs have taken advantage of the service offered free of charge by FishPal, to promote their fisheries online.

Review of river “outflow points”
Outflow points for each river were defined in The Conservation of Salmon (Scotland) Amendment Regulations 2016. In general, the outflow points were set at a clearly identifiable point where the river widens, balanced with other factors including management of the relevant fisheries. Following dialogue with a number of stakeholders the Scottish Government has reviewed the outflow points for three rivers for the 2018 season. Following that review, Ministers are bringing forward changes to two areas, the Kyle of Sutherland and the Urr Water. These changes have the potential to open up commercial net fishing in at least one case, although
the financial impacts of that are unknown at this point.

Benefits
The package of regulatory measures places a statutory duty on the Scottish Ministers to carry out an assessment of the conservation status of salmon in inland waters. The purpose of the assessment is to determine whether fishing is sustainable in the area in question. The impact of fishing on the conservation objectives of each SAC and the ecological requirements of Atlantic salmon form part of the wider consideration of the likely significance of the effect netting/angling may have on designated sites. Where there is a favourable conservation status for an area it is accorded a grade 1 or 2 status. For those areas where there is no favourable conservation status for Atlantic salmon, a grade 3 status is applied. Those areas listed in Schedule 2 to the 2016 Regulations, where retaining salmon is prohibited, are those areas which have been accorded category 3 status.

Costs
The conservation measures, including the continuing prohibition on the retention of salmon outwith estuary limits, has given rise to concerns expressed by a number of individuals and angling clubs, a number of whom have suggested that a decline in their membership is directly associated with the inability to kill a salmon (even with the high evidence of voluntary catch and release already evidenced in Scotland). While it is not clear whether this decline is part of a wider concern for angling as a sport, Ministers remain committed to examining ways in which to support angling clubs going forward.

Scottish Firms Impact Test
We have engaged with representative bodies and individual businesses during the development of the conservation measures and, during the consultation period in 2017, specifically sought information on the potential financial impact of the proposed conservation measures. Those firms affected by the proposals range from small individual netting companies to larger sporting estates. Whilst some respondents expressed concern that there would potentially be a financial loss to their business they were unable to quantify the extent or provide any financial information.

Competition Assessment
The measures will restrict fishing to a catch and release regime in many areas of Scotland.

Test run of business forms
No new forms will be introduced

Legal Aid Impact Test
There are no legal aid implications associated with this legislation.

Enforcement, sanctions and monitoring
Enforcement will be through the powers within the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. Failure to comply with the 2016 Regulations is an offence under section 38(7) of the 2003 Act. A person who is found guilty of an offence is liable on summary conviction to a fine not exceeding level 4 on the standard scale.

**Implementation and delivery plan**
The new measures will come into force on 1 April 2018.

**Post-implementation review**
The impact of the package of regulatory measures and the use of data in the assessment process will continue to be reviewed on an annual basis.

**Summary and recommendation**
In recognition of continuing concerns about salmon stocks and the pressures that they face there is a need to ensure and be seen to be demonstrating that any killing is sustainable. The package of regulatory measures seeks to protect the weakest stocks by requiring catch and release in a number of areas to allow stocks to recover or at the very least maintain them at current levels.

Scottish Ministers consider that the package of measures set out in the 2016 Regulations, to be amended in the light of the most recent assessment of stocks, strikes the right balance between the interests of those who fish for salmon and the conservation of the species for the benefit of future generations.

**Declaration and publication**
I have read the Business and Regulatory Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs.

Signed:

Date:

Roseanna Cunningham
Cabinet Secretary for Environment, Climate Change and Land Reform

Scottish Government contact point: Keith Main

**Annexe B**

**Letter from Cabinet Secretary for Environment, Climate Change and Land Reform**

Dear Graeme,
Conservation of Salmon (Scotland) Regulations

You will recall that I wrote to you on 14 September 2017 when we launched our public consultation on the proposed gradings for salmon rivers for the 2018 fishing season.

The assessment for the 2018 season shows that, while many of Scotland’s large salmon rivers, where the majority of salmon are caught, are still in good conservation status, there is a significant downward trend in the conservation status of stocks overall. As a result, we have proposed that mandatory catch and release should apply to a higher number of rivers than was the case for 2017.

The public consultation took place between 15 September and 13 October 2017 and we received almost 200 representations from angling clubs, district salmon fishery boards, river trusts and individuals. While we have considered all of the points raised carefully, we believe that our overall assessment remains broadly correct.

I am therefore writing to let you know that I will be laying The Conservation of Salmon (Scotland) Amendment Regulations 2018 for Parliamentary scrutiny on Thursday 8 February 2018.

Letter from Jackie Baillie MSP

Dear Graeme

The Conservation of Salmon (Scotland) Amendment Regulations 2018

I understand that the committee will soon discuss the Scottish Government’s proposals for the provisions which will regulate the retention and killing of salmon in inland waters for the 2018 fishing season.

I write to highlight my concerns, and the concerns of my constituents, regarding the proposals to classify the Leven, Loch Lomond and Endrick waters as Grade 3 conservation status.

The Loch Lomond Angling Improvement Association (LLAIA) believes that the proposals will have a detrimental impact on club membership and any reduction in income will put local bailiffs and conservation projects at risk. The main criticism of the proposal is the fact that the decision lacks an evidence base, the data is incomplete and the methodology is flawed.

There have been dry autumns over the past three years and the Endrick is a spate river, so it is not unusual that catch numbers are down compared to the five year catch average. Marine Scotland also confirmed that the only evidence used to
determine the classification of the Lomond system was the catch data provided by LLAIA and that data from other riparian owners on the River Endrick was not considered. LLAIA only operates along 16km of water, yet the River Endrick is 49km long so the calculations are not based on the correct data.

I arranged a meeting with the Environment Secretary, officials from Marine Scotland and representatives of LLAIA in December 2017 to discuss the situation and secured an agreement that officials would locate the missing data and get back to LLAIA to inform them of the results by Christmas. Unfortunately the LLAIA has not received any further information from Marine Scotland and the regulations have remained unchanged.

I would therefore respectfully ask the Committee to reject the proposed regulations to prevent the Leven, Loch Lomond and Endrick waters being classified as Category 3 without any evidence base to support such a classification.

**Letter from the Loch Lomond Angling Improvement Association**

On behalf of the Committee and members of the 130 Year old and largest Angling Association in Scotland the Loch Lomond Angling Improvement Association (LLAIA). I have been instructed to write to you to kindly ask that as a member of the Environment, Climate Change and Land Reform Committee you will seriously consider using your vote to annul the instrument on Tuesday 13 March 2018.

It is worth stating that these conservation measures were introduced in response to the threat of proceedings by the EU against Scotland for breach of the Habitats Directive 92/43/EC. In order to meet our obligations under European law the conservation measures were introduced with some speed in 2016. The LLAIA appealed the proposals for the 2016 category of our system which again proposed we are placed as a Cat 3 simply because one of our tributaries the Endrick water is a SAC river, as such our whole system which would otherwise be a Category 2 (Limited no of fish can be retained subject to agreed conservation plan) is downgraded to a Category 3 (No retaining of fish). At the RACCE Committee meeting on the 9th March 2016 and supported by our local MSP we asked for the instrument to be annulled (Copy minutes enclosed). You will see that the instrument was only carried because of the Convenor’s vote who stated on record that the evidence presented did question the data and methodology but reluctantly he had to support the instrument.

For the 2017 season, the LLAIA waters were again proposed to be a Cat 3, and with our objections and subsequent meeting with Marine Scotland Scientists and Marine Scotland staff we presented our case that the catch data used by MS is only for 16Km of a 46Km river and that rod catches are not a accurate way to determine populations of fish, at that meeting they acknowledged that they were not in possession of all catch data for the river, they understood they had counted water
that fish cannot access, and when the instrument went for approval in season 2017 our objection was upheld.

Now for this season’s proposal, yet again MS are proposing we are a Cat 3, we objected in the strongest terms and again met with Marine Scotland Scientists and Marine Scotland staff on the 30th October 2017. At that meeting we were informed that MS and MSS had again only used the LLAIA catch return data and had not sourced or obtain the catch data from the other Salmon fishing Riparian owners over the previous twelve months. In fact, we don't believe the MS staff from the meeting in 2016 had recorded nor passed on to their colleagues that all info was not being used in our calculations. We asked that our data be adjusted to compensate for the missing 30Km of river and the MSS scientist refused.

We then succeeded in having a meeting at the Parliament building with the Cabinet Secretary herself and in the presence of our local MSP Jackie Baillie and representatives of Marine Scotland on the 12th December 2017 where we put forward our objections that the data is flawed due to omissions of catch data and also catch data and angling effort formulae is flawed. We secured an agreement that officials would locate the missing data and get back to us by Christmas. Unfortunately we have not received any further information from Marine Scotland and the regulations have remained unchanged. We didn’t receive any communication from MS until the proposed instrument was laid in parliament a few weeks ago and the public response issued regarding the proposals which again I enclose for your study.

In particular I bring to your attention the statement made within that document:

Marine Scotland have no sound scientific evidence on which to base the proposals

The assessment model for the 2018 season has been developed in close liaison with the Salmon Liaison Group (SLG), representatives of local biologists and other stakeholders. It follows the model used elsewhere, for example in Norway, but is tailored for the Scottish situation. While there are gaps in the catch data available, we press proprietors and others to provide up-to-date data so that the assessment is based on the best available evidence at the time. The SLG has expressed itself supportive of the model for the 2018 season.

Modelling should not rely on catch data, but use juvenile modelling to estimate salmon abundance / No account has been taken of fishing effort, electro-fishing and no account has been taken of any local knowledge

Further significant developments are being explored for future years, including the calculation of more focused, regional egg targets for river systems, and the longer term development of a juvenile sampling model to complement the existing processes. Marine Scotland is also aiming to develop a long term electro-fishing national sampling strategy, based on hydrometric areas.

We are appealing to you that after three years MS and MSS are still making things up as they go along! That they simply do not have accurate methodology for Scotland and having to use something based on Norwegian rivers and also their own admission that data is missing and they have gaps, to indicate that further
developments will be explored for future years we strongly believe indicates that you are being asked to pass a instrument that is not scientifically proven nor would it stand up to peer review, the fact also remains that none of the methodology or data calculations used by MS have been published in any scientific journal nor under any single fishery scientists name indicates that the science is not robust.

At our meeting with MS and MSS in October 2017, we asked Marine Scotland Science whether they would stand by the current methodology and put its name to a scientific paper on the calculation method and data used. We did not receive a positive response.

We ask on behalf of all our members are you willing to approve this instrument? When clearly MS and MSS themselves admit they don’t have the required methodology nor will they for a number of years. As such we ask you to annul this instrument on the 13th March 2018.

The LLAIA as you can read in our original objection letter to MS on the proposal’s for season 2018, are very conservation minded and have for a number of years put in voluntary conservation methods by use of a tagging system and extending the conservation of Spring Salmon by a month from the Statutory conservation period. All we appealed for is our system remains a Cat 2, and with a view that MS spend far longer obtaining accurate data.

Finally I would direct you to Page 218 from a MSS Commissioned research document that states by a group of peer group fishery scientists that there is no correlation between Salmon abundance and angler effort and rod and net catches. So why are MS using rod catches and as you read incomplete rod catch data to make legislation and ignoring advice in one of their own commissioned research studies? Paper can be found at:

http://www.gov.scot/Publications/2016/03/5757/downloads#res497355

This paper states that a national network of fish counters is the only way to determine abundance, yet extract of minutes from the Salmon Liason Group indicate funding is unlikely and recent F.O.I requests from us to MS and SNH indicate that no money whatsoever has been spent on the Endrick Water SAC, in fact they has been no recorded dialogue in the last twelve months with ourselves or local fishery trust about improvements to habitat or scientific study of any kind. The only improvements and funding for improvements have been made by the LLAIA itself.

Our Association is not alone in being affected by this flawed approach, some fifty systems are being proposed for 2018 to be downgraded and again we would ask? Can that be based on accurate data? One would perhaps expect if methodology to be correct and accurate that one or two systems be downgraded, but fifty systems across Scotland surely can’t be accurate.
The result is that the measures have not been as fully and thoroughly thought through as might otherwise have been the case and while many believe the model utilised by MSS would appear to be fit for purpose, there are serious misgivings across Scotland about the quality of the data inputted into the model and a perceived lack of clarity regarding the process for its improvement.

An informal group of rivers Trust biologists sought to address areas of concern directly with MSS in late 2015. Particular areas of contention included:

- The 'one size fits all' approach. There is a criticism that the enormous variation in conditions around Scotland cannot be reflected in such an approach and there needs to be recognition of regional diversity.
- Estimates for wetted area, inclusions of lochs
- Estimates for fecundity (reproduction levels)

It appears that MSS and MS have some three years later still not came up with robust methodology that would stand up to peer scrutiny and with their own admission that proposals for our system are based on incomplete data, we ask you to do the right thing and vote to annul the instrument on the 13th March.

We thank you for your valued consideration on this matter.

Gareth Bourhill
LLAIA Secretary
15 March 2018

Dear Mr Dey

ECCLR COMMITTEE MEETING – 13 MARCH 2018
CONSERVATION OF SALMON (SCOTLAND) AMENDMENT REGULATIONS 2018

I am writing following the Committee’s meeting on Tuesday 13 March. I am grateful for the opportunity given to me and my colleagues to provide evidence to Members on the Conservation of Salmon Regulations, and hope that the responses we gave were helpful.

During the evidence session we undertook to provide further information in writing, and the Assistant Clerk wrote later in the day to confirm this. The information requested is set out below, and in the attached annexes.

Details of the 32 groups who have raised concerns

As discussed during the evidence session, our proposals for the 2018 fishing season were advertised in the press last autumn. Representations and comments were invited over a 28 day period, as required by statute, between 15 September and 13 October 2017. In addition to the press advertisements we e-mailed over 1,500 stakeholders direct, inviting comments, and the Marine Scotland Twitter announcement about the consultation has been seen by more than 1,700 people.

In total, 192 individuals and organisations including angling clubs, district salmon fishery boards (DSFBs), fishery owners and local businesses responded to the invitation to comment.

Some 111 of these responses (or 58%) were from the Loch Lomond Angling Improvement Association (LLAIA), or related to the Leven, Loch Lomond and Endrick Water system. The majority of these took the form of a standardised letter writing campaign signed by individual anglers.

**Top 5 Responses**

<table>
<thead>
<tr>
<th>Area</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lomond</td>
<td>111</td>
</tr>
<tr>
<td>Beauly</td>
<td>8</td>
</tr>
<tr>
<td>Eden</td>
<td>8</td>
</tr>
<tr>
<td>Earn</td>
<td>7</td>
</tr>
<tr>
<td>Bladnoch</td>
<td>4</td>
</tr>
</tbody>
</table>
The majority of the 192 responses received related to a single river or assessment group of rivers. Of the 171 assessment groups covered in the 2018 Amendment Regulations, such correspondence addressed specific concerns and issues for 32 rivers and groups. A listing of those systems is given at Annex A to this letter.

In addition, 16 representations were received which addressed a number of groups, or the assessment process more generally.

Details of the scale of the concerns raised on each of the 32 rivers by stakeholders.

With regards to the content of the responses received, many sought to criticise the general modelling approach taken, with a number seeking an expansion of the fish counter network, or advocating a move to a juvenile sampling model, rather than relying solely on rod catch data. Many of these issues have been addressed at the time the conservation measures were first introduced, or as part of the continuing discussions and development of the modelling and assessment process since 2016. As we emphasised during the evidence session, this development is ongoing, with work already started on the assessment for the 2019 fishing season.

The main recurring themes in the responses received were:

- no sound scientific evidence on which to base decisions;
- electro fishing results of juvenile salmon should be the main methodology in determining the stocks on any given river;
- Marine Scotland should address other pressures on salmon such as forestry (acidity), hydro, fish farming and marine survival;
- no account taken of fishing effort or local knowledge;
- applying a national standard for wetted areas is flawed as it takes no account of the local conditions;
- in-river habitat surveys are needed to adequately ensure accuracy in estimates of egg production targets;
- the current range in egg target estimates used in the model introduces a very large margin of error and could lead to inaccurate predictions when the model is run;
- over the past 5 years, catches have been very poor due to the absence of rain in the autumn months. This is entirely due to a river running through rich agricultural land which absorbs any normal rainfall before it gets to the river.

Responses to the main points raised were set out in the summary of responses published on the Scottish Government website on 8 February. This can be found at http://www.gov.scot/Resource/0053/00531182.pdf. The main points are also summarised at Annex B to this letter.
The summary at Annex B covers general points raised, as well as a number of points specific to the Leven, Loch Lomond and Endrick Water system, which I hope the Committee finds helpful.

In previous years, as the first two sets of conservation regulations have been developed, Marine Scotland endeavoured to engage directly with as many stakeholders as possible, through visits to angling clubs or district salmon fishery board meetings, for example, to discuss concerns and the development of the new assessment process. In addition, we have had ongoing discussions with representatives of DSFBs, river Trusts and biologists from around Scotland, to examine and assist in developing the modelling process.

For the 2018 assessment, being the third year of assessments, we have acknowledged every submission received and have taken all of the comments made into account in coming to a conclusion on the final proposals for the Regulations. In addition, we have had meetings, telephone discussions and correspondence with a number of respondents where new or particularly complex issues have been raised, or where we have sought to reassure stakeholders on certain aspects of the assessment. Such meetings and sessions include the assessments for the Loch Lomond system, the rivers Earn, Nith, Annan, Alness and the Beauly, and with other stakeholders who have offered general comments, including Fisheries Management Scotland. We have not provided individual responses to all 192 respondents.

Details of the specific areas of the River Endrick where the Scottish Government is not aware of the owner and further general information on the Scottish Government's approach to ascertaining owners of specific areas

The Loch Lomond Angling Improvement Association (LLAIA) has stated in meetings with the Scottish Government that catch returns are only made for a proportion of the Endrick Water SAC, and that this leads to gaps in the data used in the annual assessment process. The Association have argued that they own or lease ‘…16km of the river Endrick out of the 49km of river below the Loops of Fintry’. On this basis, the LLAIA have suggested that their catches are doubled to compensate for the missing catch data.

To check the position, we met with representatives of the Loch Lomond Fisheries Trust in November 2017, and discussed this issue. At that meeting, the Trust were able to hand draw a rough map of the various sections of the Endrick Water and, from their knowledge of the beats, identify the stretches where fishing potentially takes place, and those stretches which are not fished. Banks may, for example, be inaccessible, or fishery owners may simply not be fishing in the waters identified. We have provided scans of the hand drawn maps which were provided to us by the Loch Lomond Fisheries Trust. The lower Endrick, which we describe as downstream of the river Blane, is not included in the ‘wetted area’ (the area of the catchment used to calculate the egg requirement), so rod catches from this part of the river are
excluded. The middle and upper Endrick are both in the ‘wetted area’ and the Loch Lomond Fisheries Trust has identified on the respective maps that 11.1km, measuring both left and right banks, of the 53km stretch of river is fished, with what they describe as negligible catch numbers. Nevertheless, this represents 21% of the middle and upper Endrick for which we do not have catch returns. If we increased the LLAIA’s declared catch by 21%, which we do not believe we can justify, especially given the anecdotal evidence from the Loch Lomond Fisheries Trust, this would not move the Endrick into Grade 2.

Nor do we believe that this shortfall, and other potential shortfalls across Scotland, are of a level which would call into question the full assessment of 171 assessment groups, as set out in the Amendment regulations.

In meetings with the LLAIA over the past two years we have sought their assistance in identifying contact details for fishing owners who they contend are not submitting returns. At meetings in late 2016 and again in October 2017 we have asked for such information, which would then allow Marine Scotland to approach owners and check the position. To date, the Association have taken the view that they could not provide the information needed. We remain committed, however, to working with the Association to take this forward. I will therefore be contacting the LLAIA by the end of March to offer a meeting to discuss next steps. Our aim is to ensure that we fill any such gaps in good time for the 2019 assessment. It must be emphasised, however, that even if we obtain 100% returns for the five years covered in the assessment, this will not guarantee a higher grading for the Loch Lomond system next year.

Finally on this point, it is perhaps worth pointing out that data used for the 2018 assessment of the Endrick Water are based on the same set of catch returns, for the 2016 season, as those which were submitted for the 2012 season. There is no dropping off in terms of those responding to the request for data, and therefore the model is comparing like-with-like across the five year period.

Timescales and detail on consultation with riparian owners

At the end of each fishing season Marine Scotland send blank catch return forms to all known proprietors of fisheries. The number of forms issued has risen each year, as our knowledge of the rivers has improved, and it is a statutory duty on the proprietors to submit a return. Since 2011 until the end of the 2016 season, we have received data from over 6% more fisheries, increasing from 1,848 to 1,958. Overall, we estimate that the total length of water assessed across Scotland is over 45,000km.

To improve the position further, we have agreement in principle from Fisheries Management Scotland and the Scottish Assessors Association that we move to a single, on-line catch repository, which would allow fisheries to input their data directly and throughout the season. We are currently scoping the system requirements to
establish the likely cost, with the aspiration that the build commences later in 2018. The efficiencies that would be delivered from such a system would allow us to accelerate our identification of missing fisheries data, make it far easier for each fishery to make returns and for the data to be accessed and crossed checked by appropriate parties. It should be emphasised, however, that the owner of fishing rights on a river or beat is not necessarily the riparian owner, as is exemplified by LLAIA’s ownership of some salmon heritable rights, over and above those they lease. Without local help to provide contact details, where known, identifying those holding such rights is not a straightforward task and may involve accessing paper records held at Registers of Scotland.

Was an equalities impact assessment completed for this SSI?

During the Committee session Ms Baillie asked for confirmation that an equalities impact assessment (EQIA) had been prepared in respect of the Regulations. We understand this to relate back to questions raised during the Rural Affairs, Climate Change and Environment Committee’s scrutiny of the original 2016 Regulations on 9 March 2016. An extract of the relevant part of the session is copied at Annex C to this letter.

As requested, we have checked the position and have been unable to trace any formal EQIA at the time of the 2016 Regulations. We have not undertaken a specific assessment for the 2018 Regulations but we have revisited the issue in the light of Ms Baillie’s comments.

An equalities assessment is an activity to be considered when developing a policy and carried out if deemed necessary. It is designed to identify the potential or actual impact of the policy on people who share certain ‘protected characteristics’: age, disability, sex, gender reassignment, sexual orientation, race and religion or belief. In her contribution to the Committee on 9 March 2016 Ms Baillie stated that 40 per cent of the members of Loch Lomond Angling Improvement Association have protected characteristics.

We have considered whether the conservation of salmon regulations, and in particular the Amendment Regulations 2018, currently being considered by the Committee, have the potential to impact people with protected characteristics, as detailed above.

On balance, we do not consider that there is any significant or material impact. The conservation measures do not restrict or prohibit access to angling by any person or group of people: they are designed to prevent the killing of fish in those waters where we consider the continued exploitation of this protected species is not sustainable. As set out in our evidence, that assessment is carried out on an annual basis. Access to angling remains the same whether or not the conservation measures are in place. Any decision not to fish a particular river or stretch of river because it has
been given a Grade 3 rating in any year is therefore a personal choice made by each individual.

The only potential impact we have identified, or that has been highlighted as a result of the various consultations we have undertaken, is that the loss of angling effort or a downturn in angling club membership could lead to reduced income for clubs and district salmon fisheries boards. This in turn has the potential to reduce work on the river itself, including bailiffing and enforcement efforts.

As part of the recent public consultation we asked those responding to identify any potential costs or impacts of this type. While a number of respondents expressed general concerns, as set out above, only the Loch Lomond Angling Association offered a specific statement in which they speculated that 2 full time bailiffing posts could be lost.

While Ministers have acknowledged the potential for a downturn of this kind, the Scottish Government has been clear that we consider the conservation measures strike a necessary and correct balance between the need to conserve the species for future generations, and the needs of today’s anglers. Overall, therefore, we do not consider a full EQIA process is required to support the 2018 Amendment Regulations.

We have, however, prepared a full Business and Regulatory Impact Assessment in each of the three years, to accompany the regulations in Parliament. The latest BRIA is at http://www.legislation.gov.uk/ssi/2018/37/pdfs/ssifia_20180037_en.pdf. Members may wish to note that we have, at page 3 of that paper, made an assessment of the impacts of the measures on business and angling interests, and have set out some of the mitigating measures put in place to help minimise such impacts.

I hope this detailed response to each of the points raised by the Committee at the end of the evidence session on 13 March is helpful to Members.

Yours sincerely

Simon Dryden

ANNEX A

Main rivers and assessment groups addressed in responses to consultation

<table>
<thead>
<tr>
<th>River / Group</th>
<th>Grade in 2017</th>
<th>Grade for 2018</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alness</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Annan</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ayr DSFB</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Grade 1</td>
<td>Grade 2</td>
<td>Grade 3</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Beauly</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Berriedale &amp; Langwell Waters SAC</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Bladnoch</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Borgie SAC</td>
<td>1</td>
<td>1</td>
<td>Note 5</td>
</tr>
<tr>
<td>Brora</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Coe</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Deveron</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Doon</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Dunbeath Water</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Earn</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Eden (Fife)</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Forss</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Forth</td>
<td></td>
<td></td>
<td>Note 1</td>
</tr>
<tr>
<td>Helmsdale</td>
<td>1</td>
<td></td>
<td>Note 5</td>
</tr>
<tr>
<td>Hope River System</td>
<td></td>
<td></td>
<td>Note 2</td>
</tr>
<tr>
<td>Inver</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Kyle of Sutherland DSFB</td>
<td></td>
<td></td>
<td>Note 3, 5</td>
</tr>
<tr>
<td>Leven (Invernesshire, West Region)</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Loch Morar &amp; River Morar</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Lomond System</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Moidart (North West Region)</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Morriston SAC</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Ness</td>
<td></td>
<td></td>
<td>Note 4</td>
</tr>
<tr>
<td>Spey</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Nith</td>
<td>2</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>North Harris</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>North West DSFB</td>
<td></td>
<td></td>
<td>Note 2</td>
</tr>
<tr>
<td>Urie</td>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Urr</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Notes

1 – Forth system includes eight rivers. Main submission (of 2) was from Forth District Salmon Fishery Board and River Forth Fisheries Trust jointly.

2 – Includes eleven rivers, five of which the grade was supported. Of the six rivers where the DSFB disagrees with the grading – Hope moves from Grade 1 to 3; Polla is assessed for the first time; Kyle of Durness moves from Grade 1 to 3; Inver from Grade 2 to 3; Kirk’aig from Grade 2 to 1 and Polly & Oscaig from Grade 2 to 3.

3 – Includes 4 rivers. Three of these remain static, while River Shin rises from Grade 2 to 1.

4 – River Ness is Grade 3 until 1 July, after which it is Grade 2. This is the same in each year.

5 – Gradings for the Borge, Helmsdale and Shin were raised from the original proposal of Grade 2 to Grade 1 as result of representations made over the uncertainties introduced by the inclusion of lochs in the wetted area calculations. In total, seven river systems were re-graded in this way.

ANNEX B

Summary of main points and issues raised in responses to consultation

GENERAL ISSUES
Marine Scotland have no sound scientific evidence on which to base the proposals.

**Response:** The assessment model for the 2018 season has been developed in close liaison with the Salmon Liaison Group (SLG), representatives of local biologists and other stakeholders. It follows the model used elsewhere, for example in Norway, but is tailored for the Scottish situation. While there are gaps in the catch data available, we press proprietors and others to provide up-to-date data so that the assessment is based on the best available evidence at the time. The SLG has expressed itself supportive of the model for the 2018 season.

Modelling should not rely on catch data, but use juvenile modelling to estimate salmon abundance. No account has been taken of fishing effort, electro-fishing and no account has been taken of any local knowledge.

**Response:** Further significant developments are being taken forward for future years, including the calculation of more focused, regional egg targets for river systems, and the longer term development of a juvenile sampling model to complement the existing processes. Marine Scotland is developing an electro-fishing national sampling strategy, based on hydrometric areas, stripped down to catchment areas with salmon fisheries, for review at end of May 2018.

The current range in egg estimates used in the model (eg between c.2,500,000 and c.17,500,000) is of concern as it introduces a very large margin of error. Applying a national standard for wetted areas is flawed as it takes no account of the local conditions. Only in river habitat surveys will adequately ensure accuracy in estimate of egg production targets.

**Response:** See comments above re modelling. Marine Scotland is looking to develop more focussed, regional targets for egg deposition, taking account of local habitat and conditions, which will allow for more accurate estimates of abundance in future years.

Marine Scotland concentrates on catch returns from anglers but should take account of other pressures on salmon, such as forestry (acidity), hydro schemes, fish farming and sea survival.

**Response:** Marine Scotland is addressing, through research, direct intervention and partnership working, a range of high level pressures on salmon. The table below summarises some of the main activities in this area.

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Current key, direct mitigating activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploitation</td>
<td>Conservation regulations &amp; prohibition on retaining salmon in coastal waters.</td>
</tr>
<tr>
<td>Seal predation</td>
<td>Case study looking at options for dealing with harbour or common seals.</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Piscivorous birds</td>
<td>Licences to shoot birds are issued by SNH.</td>
</tr>
<tr>
<td>Fish health impact from sea lice</td>
<td>Last year, the Scottish Government committed to the development of a strategic framework for farmed fish health. The Strategic Farmed Fish Health Working Group has now been established which will ensure further progress in tackling biological challenges, including emerging disease and sea lice.</td>
</tr>
<tr>
<td>Genetic introgression</td>
<td>We are exploring a potential research project on the west coast of Scotland using samples obtained while electrofishing.</td>
</tr>
<tr>
<td>Invasive non-native species</td>
<td>The Scottish Invasive Species Initiative is a priority project in the Scottish Biodiversity Strategy’s route map to 2020.</td>
</tr>
<tr>
<td>Climate change and thermal habitat</td>
<td>We are in discussion with a number of stakeholders about developing a sponsored programme of planting riparian trees in areas that are particularly sensitive to warming.</td>
</tr>
<tr>
<td>Instream habitat</td>
<td>Early discussions about a potential nutrient enrichment project to see if we can improve the size and therefore marine survival of smolts.</td>
</tr>
<tr>
<td>Riparian habitat</td>
<td>Monitoring ongoing discussions associated with poorly buffered underlying geology, extensive Sitka spruce afforestation and degraded peatlands.</td>
</tr>
<tr>
<td>Barriers to migration</td>
<td>SEPA is leading on work to remove barriers in rivers, utilising a £7m in FY 18/19 from the SG. SEPA CAR licences impose mitigation strategies on hydro activities, such as the trapping and trucking of smolts below dams.</td>
</tr>
<tr>
<td>Inshore and offshore developments</td>
<td>Coastal movements of salmon and sea trout are poorly understood – we aim to</td>
</tr>
</tbody>
</table>
How can Marine Scotland decide the category before the end of the season? Full catch returns will not have been submitted.

**Response:** This is a misunderstanding of the modelling process. Proposals for the 2018 season are, by necessity, based on the most recently available data and is a five year average using catch returns from 2011 to 2016. Returns for the 2017 season just ended will only be available in April 2018 and will be used in the 2019 model.

Over the past 5 years, catches have been very poor due to the absence of rain in the autumn months.

**Response:** The model includes an adjustment for river flow to account for poor angling conditions.

Concerns that Grade 3 status will lead to a downturn in club membership, with reduced income leading to fewer bailiffs and local conservation initiatives.

**Response:** Ministers are aware of this legitimate concern for clubs, which comes against a background of declining membership over a number of years. However, the Scottish Government has clear responsibilities to protect Atlantic salmon and we believe that the approach taken provides the most appropriate balance between the needs of anglers and clubs, and the duty to protect the species for the future.

**LOCH LOMOND SYSTEM ISSUES**

Catch returns and modelling

The modelling process to assess salmon abundance is based around reported salmon catch data, for which we rely on anglers to make statutory returns. This allows a direct, verifiable check against a small network of fish counters around the country. The results and the relationship between catch returns and counter data can then be extrapolated to make assumptions about the relationship between catches and numbers of migrating salmon in other rivers in Scotland.

While it is the case that we do not receive all catch returns for all fishings, despite two reminders to proprietors and anglers each season, the modelling process is designed to take account of an assumed shortfall so that the estimated egg targets produced by the model remain valid. There is no overall, national correction factor to take account of the lack of returns made. Nor is there any national assumption about the number of potential fisheries about which we are unaware.
However, the modelling process is not invalidated by such gaps as:

1.1 Rod catch data reflects catches as salmon migrate through the river system. It is not necessary to sample every bank and kilometre – especially as many potential fisheries may be inaccessible, remain unfished or only lightly fished, or may not support salmon at all;

1.2 As noted above the model validates reported catches against counter data to extrapolate a national baseline; and

1.3 Marine Scotland also compares reported catch returns against figures published by district salmon fisheries boards and finds that there is a close match between the two.

**Catch trends**

As noted in the submission, there has been an overall downturn in salmon catches in recent years. Reported catches in 2016 were some 63% of those for 2011, with the result that the most recent five year averages are generally well down. As an illustration, summary catch returns reported for the Endrick Water are shown below

<table>
<thead>
<tr>
<th>Year</th>
<th>Retained Salmon</th>
<th>Retained Grilse</th>
<th>Released Salmon</th>
<th>Released Grilse</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>86</td>
<td>0</td>
<td>42</td>
<td>0</td>
<td>128</td>
</tr>
<tr>
<td>2012</td>
<td>13</td>
<td>25</td>
<td>64</td>
<td>117</td>
<td>219</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>7</td>
<td>26</td>
<td>74</td>
<td>107</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>1</td>
<td>21</td>
<td>23</td>
<td>45</td>
</tr>
<tr>
<td>2015</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>57</td>
<td>79</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>63</td>
<td>113</td>
</tr>
</tbody>
</table>

**Counter network**

In Scotland there are a few rivers with fish counters on their lower reaches that can be used to estimate numbers of returning adult salmon directly. In common with other countries, catches of salmon are used to estimate salmon numbers in areas without counters.

Ideally the relationship between catches and salmon numbers would be available for a greater number of sites. In 2016 Marine Scotland commissioned a paper - *Technical, Logistical, and Economic Considerations for the Development and Implementation of a Scottish Salmon Counter Network* – which was published in 2016. The 267 page study examines, amongst other things, different types of counters, potential uses and location, their advantages and limitations and costs.
Installing, maintaining and operating a fish counter requires significant resourcing, both in terms of money and people. Installation works in river can be complex, the equipment has to be maintained and regularly cleared of debris, and fish counts have to be verified on a regular basis. Several of the existing counters are operated and maintained by third parties – for example at the Pitlochry dam and fish ladder. Elsewhere we rely on the local Board or Trust.

Any programme of expanding the national network would require significant resource input from Marine Scotland. We are however, working with other stakeholders to explore possible locations for counters which could be incorporated in the national model. This includes recent support of a £50,000 grant to reinstate a counter on the Ettrick at Phillipshaugh and discussions with the River Nith DSFB. At a meeting with the LLAIA in October 2017 we suggested that the Association might consider investing in a counter to improve the data available for the Endrick Water SAC, but they were clear they could not find the resources necessary, either in terms of people or finance.

Changes to wetted areas

The LLAIA appealed against the proposed grading for the 2017 season and, following a meeting, Marine Scotland made adjustments to the “wetted area”, which is the base area against which fish numbers are calculated, to arrive at an egg target assessment. That adjustment had enabled us to raise the grade from 3 to 2 for the 2017 season. The adjustments made for the 2017 season were a significant step towards helping the Lomond system rise a grade, but additional changes cannot be justified for the 2018 season.

Special Areas of Conservation

The inclusion of the Endrick Water SAC in the Loch Lomond system, and the fact that Endrick fish must access the SAC through the River Leven and Loch Lomond, is undoubtedly a complicating factor for the management of the fisheries in the area. It has to be stressed, however, that the Scottish Government has a duty, under the terms of the EU Habitats Directive, and under wider international agreements – to take a precautionary approach to the protection of Atlantic salmon in this SAC. While average catches remain low in the SAC it is necessary to demonstrate that we are meeting those responsibilities properly.

It is worth noting that other systems do include SACs, but the position there is quite different. For example, in the Forth system, the River Teith SAC is assessed as having a better than 90% probability of achieving its Conservation Limit, and is therefore quite different to the Endrick.
Rural Affairs, Climate Change and Environment Committee

Jackie Baillie:
Has an equality impact assessment been done on the proposals? I ask because 40 per cent of the members of Loch Lomond Angling Improvement Association have protected characteristics. Has an equality impact assessment been carried out on the impact on its members?

[10:15 ]

Willie Cowan:
As has been said before, the proposals do not preclude people from undertaking the activity—they preclude them from killing a fish.

Jackie Baillie:
With respect, that was not my question. My question was whether an equality impact assessment has been done.

Richard Lochhead:
We always carry out equality impact assessments on legislation.

Jeff Gibbons:
As part of the wider discussion, we looked at the impact on clubs where there were special issues and that was built into the business regulatory impact assessment as well.

Jackie Baillie:
That still does not answer my question, but thank you.