

Appendix 11: standard paragraphs used in our replies to objectors – August 2018

Responses within this document:

1. Overarching general objection
 - 1a. Rationale for taking these decisions
 - 1b. Multiple issues affecting salmon generic
 - 1c. Generic habitat degradation response
2. Stock assessment / evidence
3. Allowing but not expanding a sea trout fishery
4. EA protecting a sea trout fishery
5. The potential to allow a continuing sea trout fishery
6. Catch and release
7. What are we doing to address the other four points of the Salmon Five Point Approach
8. Impact of predation – birds and seals
9. Impact of Scottish salmon farming operations on local stocks
10. Impacts from diffuse farm pollution (e.g. silt, nutrients, veterinary medicines, pesticides and insecticides)
11. Inadequate Environment Agency resource to enforce measures
12. Stock with salmon / more hatcheries
13. Why are we not investing in hatcheries, or encouraging private individuals / clubs to open their own hatcheries, so as to increase salmon recruitment
14. What are we doing to stop salmon poaching and increase enforcement / have we considered using voluntary bailiffs
 - 14a. Extra checking – how will you fund this
15. Salmon and sea trout catch returns
16. Making money from hatcheries
17. Reducing the cost of a rod licence if you cannot keep salmon
- 18 Large numbers of net caught salmon before 1st June not being returned or too badly damaged
 - 18a. NE nets: Object to spring salmon byelaws: Early fishing of salmon pre June 1st and being returned damaged
 - 18b. Why the Spring salmon byelaws are working for salmon and so should be renewed
- 19 NE nets: Object to spring salmon byelaws: sea trout need protection too
20. Compensation
21. A Generic objection to methods

- 21b. Low mortality rates around catch and release (when practiced correctly)
- 21c. Should barbed hooks be prohibited by byelaw when fishing using flies, lures or bait
- 22. Should treble hooks be prohibited by byelaw when fishing using flies, lures and bait
- 23. Restriction on the use of flying 'C's
- 24. Flying C's are bad but so are other methods
- 25. Should barbless hook be prohibited by byelaw
- 26. We should ban worming
- 27. You cannot prescribe methods as this will just alienate everyone who is already angling responsibly
- 27a. Smaller hooks cause more damage than larger ones
- 27b. Response to fishing lures with single hooks only
- 27c. Other gear suggestions
- 28. Marine fisheries / trawler concerns
- 29. Could the changes in population numbers and composition not be due to natural cycles in the population
- 30. How do you consider the socio and economic effects on measures that you propose
- 31. Why do the dates for nets and rods commence at different times
- 31a. Ban all netting
- 31b. Ban all netting at sea
- 32. Alternative approaches to regulating the net fishery by reducing fishing effort
- 33. Phasing in changes to the England net fishery rather than immediate introduction
- 34. All salmon should be released all year by any method
- 35. Catch and release on NW SAC rivers
- 36. Net and rod fishermen aren't able to deplete salmon stocks
- 37. Delay in measures

1. Overarching general objection

Going forward, we have noted your objection to this part of the byelaws. Your response to this consultation has been logged and will be included in the final byelaw submission to Defra.

We note your objection to this part of the byelaws. Your response to this consultation has been logged and will be included in the final byelaw submission to Defra.

1a. Rationale for taking these decisions

Our rationale supports proposals for large reductions in our salmon net fisheries and to also further restrict the activities undertaken within our salmon rod fisheries. These decisions, advertised in the proposed new byelaws, have certainly not been taken lightly. We recognise that these proposals will have an impact on livelihoods, which often have been passed down through many generations of the same families, and will place restrictions on traditional and cherished pastimes. In reaching this difficult decision we have sought advice and views from

salmon rod and net interests, affiliated groups, businesses and organisations. We have also closely considered the best available scientific evidence available to us.

1b. Multiple issues affecting salmon generic

While there are multiple issues which impact on salmon, including those from **Delete / amend as needed pollution, predation, habitat loss, marine survival**, it does not preclude the Environment Agency from fulfilling our obligation to appropriately regulate fisheries.

1c. Generic habitat degradation response

We agree with and support your view that habitat loss and degradation is an important element to improving salmon populations. There is ongoing and continual work on all of our rivers to improved habitat through planning mitigation within our permitting process, habitat improvement projects with our partners and angling clubs as well as bigger fish pass schemes such as the Opening up of the River Severn project that will bring over 20 million pounds to remove the lowest obstacles on the Severn. Agricultural pollution is another area where we continue to make progress and with the new farming payments scheme being developed, we are front and centre in influencing how future payments to farmers will need to take account of agricultural activities that cause silt run off and pollution. There is still a lot to do and why are not complacent in these matters.

2. Specific concerns over baseline rod catch data / stock assessment / evidence supporting our case

Among the 80 or so principal salmon and sea trout rivers in England and Wales, nine (Tyne, Test, Itchen, Hants Avon, Frome, Tamar, Fowey, Dee, Lune) are currently 'monitored rivers' managed by the Environment Agency or Natural Resources Wales (NRW). As such, they operate counters/traps to provide estimates of the number of salmon (and in some cases sea trout) returning each year. Four of these rivers – Tyne, Tamar, Dee and Lune are classed as 'Index Rivers' because of the additional biological information they collect on the stock (e.g. age, length, weight, sex, etc.) Ideally, fishery independent measures of the salmon (and sea trout) run would be available on all rivers, but resources limit such extensive monitoring. We do, however, have catch data for all principal salmon and sea trout rivers. On these we use figures on angling exploitation rate obtained from our network of monitored rivers to estimate, from rod catches, the numbers of adult spawners and their egg contribution to assess compliance with Conservation Limits (CLs).

There will always be an element of uncertainty around river-specific exploitation rates where we do not have a fish counter. A 20% exploitation rate has been used on a precautionary approach for both the Eden and Border Esk. A number of respondents asked why a lower figure (13%) had not been used. We have modelled different exploitation rates lower than the 20% used and while egg deposition does increase, importantly the risk category upon which we base our management options remained unchanged, that is to say both rivers are still 'Probably at Risk' at 13% exploitation rate.

As indicated above, catch returns for salmon and sea trout are available for all principal rivers in England and Wales and are among our longest running and most consistent data sets. Since the introduction of the current national rod catch return system in the early 1990s, the total number of salmon and sea trout rod licences sold each year in England and Wales has remained relatively stable (average around 33,000) as has the proportion of licencees making a catch return (average around 60%). Most fish are caught by full and concessionary licence holders whereas short-term and junior licence holders catch very few fish. Taking account of these differences, estimates of the catch declaration rate (i.e. the proportion of the total catch declared) can be made. These

estimates average around 90% and have been used as a nationally derived correction factor to produce total rod catch estimates for individual rivers from their declared catch figures. These total catch estimates are used in deriving annual egg deposition figures for assessment of compliance with Conservation Limits.

While no catch recording system is perfect it is clear that catch statistics provide some of the most valuable indicators of stock and fishery performance available. This is evident from (i) the common patterns present in sometimes disparate catch records collected over many years and (ii) the strong relationships that exist between rod catches and the fishery-independent estimates of run size obtained on our monitored rivers. As such, catch records can and do provide a unique historical insight into the abundance and composition of salmon and sea trout stocks (e.g. required to explore and understand the effects of long-term processes, such as climate change, which may play out over decades) but are also clearly vital to current stock assessment procedures. It is thus essential that catch recording systems remain as consistent and effective as possible in order to maintain the quality of data collected and ensure that the accuracy of associated assessments is not compromised. Maintaining the quality of catch records is not only the responsibility of the organisations charged with collecting catch data but also of fishermen who have a statutory duty to provide accurate catch information. It is also important to add that we work with a number of local angling associations and clubs, including those on the River Eden, to cross reference Environment Agency rod licence returns with club's own records. Wherever possible we will seek to use the best available data in our stock assessment work.

3. Allowing but not expanding a sea trout fishery

In developing regulations for further reducing the exploitation of salmon, the intention has been not to increase the level of sea trout exploitation in a fishery beyond the current typical level of exploitation. Sea trout stocks will continue to be monitored and the need for any additional exploitation controls will be reviewed annually.

4. What is the Environment Agency doing to protect sea trout, and will these proposals lead to increased pressure on their populations?

Many of the actions delivered by the Salmon Five Point Approach will be of benefit to sea trout and brown trout populations as well as to salmon.

In the development of the proposed measures for net and rod fisheries, we have and will continue to consider the impact that these measures may have on sea trout populations. We have already stated that: "in developing options for further reducing the exploitation of salmon, the intention will be not to increase the level of sea trout exploitation by a fishery beyond its typical current level."

Where sea trout stocks remain fully sustainable and at surplus levels, we will continue to allow these stocks to be harvested commercially and by rod and line anglers. We will however review this situation on a regular basis.

5. The potential to allow a continuing sea trout fishery

We support the maintenance of a sea trout only net fishery which does not have a significant impact upon salmon stocks. With any sea trout only fishery, there would be an unavoidable bycatch of salmon to a greater or lesser degree, and consequent mortality.

The various net types operating in the fishery have different levels of impact depending on their mode of operation, the numbers of salmon captured and the operation of the net by individual licensees.

In determining the potential for a continuing sea trout only fishery we have established a number of criteria any such fishery would need to meet.

6. Catch and release

Voluntary catch and release has clearly increased on many rivers in recent years and now sees, on average, over 80% of salmon returned alive. Despite there being a generally high proportion of anglers who return all or most of their catch in recent years, there remains a substantial proportion of anglers who release very little or none of their catch. These anglers typically catch one salmon per season and keep it. Therefore the greatest benefit in terms of numbers of salmon saved, will come from reducing the number of individual anglers who take one salmon in the season. We consider that this will be best delivered by mandatory 100% catch and release byelaw for At Risk stocks.

Either #1 Given the response to the initial consultation we recognise that further regulation could have an impact on angling, so our approach for Probably at Risk stocks (PaR) from 2018 will now require PaR rivers to achieve high voluntary catch and release rates of over 90% in the first instance. Where the 90% catch and release target is not met, we will take decisions on a river-by-river basis whether or not mandatory 100% catch and release should be applied by byelaw. If the current catch and release rate is higher than the proposed rate, then the current rate will be required to be maintained.

Either / or #2 From a rod fishery perspective, we are not closing rod fisheries. We are preventing the take of fish where the stocks are most vulnerable. Given the response to the initial consultation we recognise that further regulation could have an impact on angling. So our approach for Probably at Risk stocks (PaR) from 2018 will now require PaR rivers to achieve high voluntary catch and release rates of 90% or above in the first instance. Where the 90% catch and release target is not met, we will take decisions on a river-by-river basis whether or not mandatory 100% catch and release should be applied by byelaw. If the current catch and release rate is higher than the proposed rate, then the current rate will be required to be maintained. Fishermen will still be allowed to pursue their sport and the local economies will still benefit from their activity.

Generic CR alternative

We have taken the decision that salmon stocks on rivers that are classified as At Risk or Probably at Risk should have the take of salmon from them reduced further and these proposed byelaws will see the taking of salmon prohibited by 2019. Where a river's salmon stock has been classified as Not at Risk or Probably Not at Risk we consider it to have some level of harvestable surplus, and these rivers are therefore not likely to be subject to additional controls on the take of salmon at the current time unless local evidence requires this.

With many net fisheries, there are also cultural elements and livelihood concerns that we need to take into account.

Mandatory catch and release is only on At Risk rivers and allows anglers to continue to fish, while reducing the impact of angling mortality on stocks. We believe this strikes the right balance.

Bleeding/ dying fish having to be released

I note your point about taking bleeding and dying fish. However, allowing anglers to take such fish makes catch and release unenforceable – some, I expect only a minority of anglers, might use this as an excuse for taking fish that might otherwise survive on being returned.

Catch and Release on Animal Welfare grounds

Catch and release can be practised very well but it does depend on the angler. This can be improved by culture, experience and rules that ensure the fish are caught using equipment and methods that maximise the likelihood of returning a fish to successfully spawn. We would agree that this requires different tactics from the onset as a fish caught to be taken could be played in a very different way than one that is to be returned back to the river. There are very few salmon returning to many of our rivers. Those that we class as At Risk and Probably at Risk, have by definition no harvestable surplus. There is an argument that fishing should be banned but the Environment Agency does not support this approach as angling delivers huge recreational benefits and many hundreds of clubs spend significant time, effort and money enhancing their rivers, removing barriers to fish passage and lobby and act to help prevent pollution and low flows.

The EA and its partners are actively promoting sustainable catch and release. Films such as the one attached here by the Atlantic Salmon Federation <http://www.asf.ca/live-releae.html> are being widely promoted.

7. What are we doing to address the other four points of the Salmon Five Point Approach?

The other four priorities are:

1. Improve marine survival
2. Remove barriers to migration and enhance habitat
3. Safeguard sufficient flows
4. Maximise spawning success by improving water quality

Since the launch of the Salmon Five Point Approach there have also been some notable successes in these work areas, these include:

- Being part of a £4 million pound investigation into salmon migration pathways along the south coast as part of the European funded SAMARCH project. This work should give us a greater understanding of how salmon move out of our rivers and into sea. This could help inform future management and planning decisions in our coasts and estuaries.
- Investigations into low flow and water quality improvements as part of the 2019 Price Review process with the water companies.
- Ongoing programmes of works to improve passage for salmon migration by adding fish passes or removing weirs.

We recognise that there is still a lot to do on the other four strands of our approach, and these will remain the focus of ours and partner organisations' work over the coming years. A great deal of this work is long term and, although much has begun, benefits will not be realised immediately. Some areas of work will need more legislation, or will be delivered through non fisheries specific work, such as water abstraction and future farming reforms.

8. Impact of predation – birds and seals (use either or both)

Predation on our fish is a natural phenomenon. For example, predation at sea by marine mammals and other fish is known to occur and the quantitative impact of this is included within marine survival estimates from the index River Dee in North Wales. Predation also occurs in our rivers, for example by otters, however it is generally the emotive issue of predation on young salmonids by cormorants and goosanders that concerns fishermen.

We recognise that there is considerable concern by many anglers and fisheries interests that both cormorants and goosanders are damaging our fish stocks through direct and unsustainable predation.

Fishery Management Advisors (FMAs), employed by the Angling Trust, and Environment Agency Fisheries Officers both provide advice to angling clubs and landowners on cormorant and goosander control. The FMAs have helped many fishery managers on both rivers and lakes with licence applications to control cormorants and goosanders, advice on safe shooting, practical advice about measures to protect fish using innovative techniques, such as the use of lasers and lifelike mannequins to deter birds, exclusion tactics, and fish refuges. The Angling Trust successfully secured the implementation of Area Based Licences to reduce the bureaucracy of multiple licence applications by individual fishery owners, and to co-ordinate shooting to scare across a whole catchment.

The Angling Trust set up www.cormorantwatch.com for anglers to record sightings of cormorants, goosanders and mergansers. It is currently campaigning to persuade government to increase the number of cormorants which can be controlled, and to remove the requirement to show evidence of damage by goosanders. They will use the number of sightings of fish eating birds on www.cormorantwatch.com as part of their evidence for this campaign, along with new evidence from the Atlantic Salmon Trust. The Atlantic Salmon Trust evidence shows that on some rivers, up to 50% of salmon smolts don't survive the migration to the estuaries. It is thought that predation by birds plays a large part in this figure. The Angling Trust is also urging Ministers to bring in regulations for the owners of barriers to fish migration. These would require the owners to allow the installation of easements to fish passage, which would significantly reduce the vulnerability of salmon smolts, and many other fish species, to predation.

The Environment Agency and its wider River Restoration partnership have invested hundreds of thousands of pounds in delivering improvements to fish passage on the Eden through weir removal and habitat works. This investment will reduce the potential accumulation of both young and adult salmon and sea trout at these locations and consequently vulnerability to piscivorous birds.

We recognise that seals can be a problem where there are barriers to fish migration. These obstacles can allow fish to be corralled, and eaten in large numbers. Generally, the actual number of salmon as a composition of most seals' diet is thought to be low. However, some specific seals have learnt strategies that do focus on salmon, especially at such barriers. Scaring deterrents are currently being researched for locations such as the Tees Barrage to combat this problem.

The Environment Agency has no powers to regulate the number of birds, seals or other marine mammals. While there are multiple issues which impact on salmon, including those from piscivorous birds, that does not preclude the Environment Agency from fulfilling our obligation to appropriately regulate fisheries.

Abbreviated predation option

Fishery Management Advisors (FMAs), employed by the Angling Trust, and Environment Agency Fisheries Officers both provide advice to angling clubs and landowners on cormorant and goosander control. The FMAs have helped many fishery managers with licence applications to control cormorants and goosanders, advice on safe shooting, practical advice about measures to protect fish using innovative techniques to deter birds, such as the use of lasers and lifelike mannequins, exclusion tactics and fish refuges.

The Angling Trust set up www.cormorantwatch.com for anglers to record sightings of cormorants, goosanders and mergansers. Along with new evidence from the Atlantic Salmon Trust, it will use these sightings data to campaign for greater controls on avian predation. The Atlantic Salmon Trust evidence shows that on some rivers, up to 50% of salmon smolts

don't survive the migration to the estuaries. It is thought that predation by birds plays a large part in this figure.

Cormorant work

We are currently working alongside Natural England, Defra and the Angling Trust to find a more useful way to agree that the management of these birds is required at specific locations, especially at certain times of year. This is particularly relevant to man-made barriers that cause migrating smolts to congregate unnaturally and become easy prey. This is an area that we are absolutely committed to resolving as soon as possible and we are collating the evidence to make the case.

9. Impact of Scottish salmon farming operations on local stocks

There is evidence that salmon farms can affect local wild salmon and sea trout stocks, however there have been no studies on the impacts of aquaculture on distant salmon or sea trout stocks.

At present we don't know if North West coast post-smolts migrate near, or close enough to, salmon farms to potentially be impacted. However, we recognise it as a potential issue and are looking to work with Marine Scotland, Atlantic Salmon Trust and other possible partners to specifically track the early stage sea migrations of North West smolts.

Though there are no open cage marine salmon farms in English waters, we fully support North Atlantic Salmon Conservation Organisation's (NASCO) efforts to ensure that regulatory regimes protect wild salmon and sea trout stocks. In highlighting current practice, NASCO held a Theme Based Special Session on salmon farming in 2016, which resulted in the following report: [Addressing impacts of salmon farming on wild Atlantic salmon: Challenges to, and developments supporting, achievement of NASCO's international goals](#). The UK Government has signed up to NASCO's international goals for the protection of wild Atlantic salmon, including the 'Williamsburg Resolution'.

10. Impacts from diffuse agricultural pollution (e.g. silt, nutrients, veterinary medicines, pesticides and insecticides)

We continue to be innovative in our approaches to targeted enforcement of potentially polluting agricultural activities, and we are looking to extend the lessons learnt from successful trials across the country. Partnership work and better targeted enforcement in Devon, Herefordshire and the North West, have all seen improvements in land management and soil run off. These projects can be used to demonstrate the benefits that this approach makes to salmon habitat.

This year has also seen the introduction of the new Farming Rules for Water. These provide a clearer, outcome based system for farmers to abide to.

We are already working closely with partners, particularly at catchment and sub-catchment scales, to ensure that farmers receive advice and guidance on how to meet the requirements. Catchment Sensitive Farming (CSF) on the Eden for example has been working with farmers to better understand and manage the risks of nutrient and sediment run off through improved farm management practices.

In the medium term, there are significant opportunities for improvement through conversion of the existing agricultural payments system to one which provides greater rewards for public goods.

Future funding systems should provide an opportunity to transition farming infrastructure, to offer higher levels of environmental protection. There is also growing recognition within the wider supply chain, and the farming industry, of the need for UK produce to have the highest

reputation for environmental standards, particularly post EU exit. We will continue to press for, and facilitate, the incorporation of farming standards that protect the water environment into assurance schemes.

Going forward, our Future Agriculture Programme will be pursuing this agenda of better regulation, funding of environment improvements, and greater supply chain assurance. While progress has generally been slower than we would like in this area of the programme, to date we are confident that the Salmon Five Point Approach has helped identify the main areas that need more attention. Also, that these areas are now much more clearly understood and recognised by our partners and by Government, and that there are programmes of work in place to drive improvements forward.

While there are multiple issues which impact on salmon, it does not preclude the Environment Agency from fulfilling our obligation to appropriately regulate fisheries.

11. Inadequate Environment Agency resource to enforce measures

Where salmon are present, the Environment Agency has dedicated enforcement resources to use in protecting stocks, such as targeted patrols. We are also increasing the use of intelligence-led work, and improved technology and surveillance, on identified hot spots, which is improving our ability to prevent and deter illegal activity. We work alongside angling clubs, landowners and partner organisations to maximise our resources on the ground. In particular, the intelligence that we use to target our enforcement activity relies on the close relationship that we have with our customers and partner organisations, such as the Angling Trust and the Inshore Fisheries and Conservation Authorities. This gives our enforcement officers, who are fully trained and compliant under the Police and Criminal Evidence Act, time to tackle illegal activity that has been identified.

12. Stock with salmon / more hatcheries #1

Recent scientific evidence demonstrates that large scale stocking of hatchery-reared salmon can potentially result in adverse impacts on the long-term fitness, and consequently the numbers, of wild salmon. We consider that it is better to support natural production in the river and maximise wild smolt output as the primary way of aiding the recovery of salmon populations.

There is very good evidence which demonstrates that wild reared salmon and their offspring have a much higher level of marine survival when compared to hatchery reared salmon (between three and ten times the differences being recorded).

At the current time, we will not be able to consent any salmon stocking schemes that are proposed on rivers designated as Special Areas of Conservation (SACs) or Sites of Special Scientific Interest (SSSI), and which include salmon as an interest feature. This reflects the fact that we are not able to confidently conclude that hatchery schemes will not have potentially negative consequences for wild salmon. In such cases, in agreement with Natural England, we believe that it is necessary to protect the unique genetic traits of these stocks for as long as possible.

The stocking that we currently carry out (e.g. River Tyne) is principally for the statutory mitigation of previous infrastructure developments (building of reservoirs) that have impacted on salmon productivity over a long term and are funded by third parties.

13. Why are we not investing in hatcheries, or encouraging private individuals / clubs to open their own hatcheries, so as to increase salmon recruitment? #2

Recent scientific evidence demonstrates that large scale stocking of hatchery-reared salmon can potentially result in adverse impacts on the long-term fitness, and consequently the

numbers, of wild salmon populations. We consider that it is better to support natural production in the river and maximise wild smolt output as the primary way of aiding the recovery of salmon populations.

There is very good evidence which demonstrates that wild reared salmon have a much higher level of marine survival when compared to hatchery reared salmon (Between three and ten times the differences being recorded).

We will consider authorising appropriately sized salmon hatchery schemes if these are fully funded by external interests, and supported by a comprehensive hatchery stocking plan. The stocking plan will seek to ensure that the inherent risks associated with hatchery schemes are adequately managed and controlled.

At the current time, we will not be able to consent any salmon stocking schemes that are proposed on rivers designated as Special Areas of Conservation (SACs) or Sites of Special Scientific Interest (SSSI), and which include salmon as an interest feature. This reflects the fact that we are not able to confidently conclude that hatchery schemes will not have potentially negative consequences for wild reared salmon. In such cases, in agreement with Natural England, we believe that it is necessary to protect the unique genetic traits of these stocks for as long as possible.

The stocking that we currently carry out is principally for the mitigation of previous infrastructure developments (building of reservoirs) that have impacted on salmon productivity over a long term and funded by third parties.

14. What are we doing to stop salmon poaching and increase enforcement? Have we considered using voluntary bailiffs?

Where salmon are present, the Environment Agency has dedicated enforcement resources to use in protecting stocks, such as targeted patrols. We are also increasing the use of intelligence-led work, and improved technology and surveillance, on identified hot spots, which is improving our ability to prevent and deter illegal activity. We work alongside angling clubs, landowners and partner organisations to maximise our resources on the ground. In particular, the intelligence that we use to target our enforcement activity relies on the close relationship that we have with our customers and partner organisations, such as the Angling Trust and the Inshore Fisheries and Conservation Authorities. This gives our enforcement officers, who are fully trained and compliant under the Police and Criminal Evidence Act, time to tackle illegal activity that has been identified.

14a. Extra checking – how will you fund this?

You have asked how the angling method restrictions be policed. We will do this, partly through our routine licence checking patrols, where we already check compliance with other fishing method and tackle byelaws. This will not incur significant additional enforcement costs. We will also continue to respond to reports and intelligence from anglers and others on possible offences, taking action where there is a significant threat to stocks and where there is a reasonable chance of a successful enforcement outcome. However, by publicising the proposed measures and the reasons they are needed, we hope anglers will fish legally and negate additional enforcement.

15. Salmon and sea trout catch returns

Anglers who hold salmon and sea trout rod licences must submit catch returns of how many fish they have caught (even if they haven't caught anything or haven't been fishing at all). This is a legal requirement that applies to one day, eight day and annual migratory fish rod licences.

Returns are based on the calendar year (1 January to 31 December) and they must be submitted by the following 1 January. Anglers must submit returns for every salmon and sea trout licence they held over the course of the year.

We use catch information to compile salmon and migratory trout statistics which enables us to manage fisheries effectively. These reports are on GOV.UK. In 2016 9,701 salmon were released which equates to 80% of the total caught

16. EA Making money from hatcheries

The stocking that we currently carry out is principally for the mitigation of previous infrastructure developments (building of reservoirs) that have impacted on salmon productivity over a long term. These are funded by third parties and the Environment Agency receives no income from such schemes.

17. Reducing the cost of a rod licence if you cannot keep salmon?

There are currently no plans to review the cost of a salmon and sea trout rod licence on the basis of not allowing salmon to be taken. Many rivers already practice 100% catch and release.

The salmon and sea trout rod licence does not fully cover the costs associated with managing these fisheries. The licence itself only covers the angler to fish with rod and line taking account of the rules and regulations in place on each river to ensure that the salmon stock remains sustainable

18. Large numbers of net caught salmon before 1st June not being returned or too badly damaged

The net fisheries that are permitted to fish before the 1 June catch low numbers of salmon and are principally targeting sea trout. Any salmon that they do catch must be returned immediately to the water with the least possible injury. At this time of year, salmon are typically the larger multi-sea winter fish, which are less likely to become gilled or snagged due to their size than the smaller grilse, which arrive at the coast later in the year. In nets that are allowed to fish at this time, these fish can be removed with relatively little damage. The proposed byelaws will close those fisheries where fish cannot be returned or those where a salmon only fishery is currently present.

18a. NE nets: Object to spring salmon byelaws: Early fishing of salmon pre June 1st and being returned damaged

Historic catch records show that few salmon are captured in the T net fishery before the 1 June (on average, around 5% of the total catch, which equates to around 280 salmon per year). At this time of year, salmon are typically the larger multi-sea winter fish, which are less likely to become gilled or snagged due to their size than the smaller grilse, which arrive at the coast later in the year. In T nets, many of these larger salmon are retained free-swimming in the bags or pockets forming the terminal headpiece of the net. With care, these fish can be removed with relatively little damage. It is less easy to remove any salmon caught in J nets, but so few salmon are likely to be caught in the proposed shorter season for sea trout, around 10% of the total catch, which equates to approximately 45 salmon per year, that losses are predicted to be very low.

18b. Why the Spring salmon byelaws are working for salmon and so should be renewed

While spring salmon numbers have certainly not increased to pre-1990s levels, there has nonetheless been an apparent increase in spring salmon numbers in the last 6 years. It is

not readily possible to attribute this increase solely to the National Salmon Byelaws, given that salmon stocks are affected by so many factors, but the prevention of killing spring salmon by nets and the mandatory release of thousands of spring salmon over the last 18 years will have at least contributed to some extent to the evident improvement in spring salmon stocks.

19. NE nets: Object to spring salmon byelaws: sea trout need protection too

Sea trout populations are more resilient than salmon, since juvenile sea trout are produced both by returning adult sea trout and by resident brown trout populations. Therefore, there is always a degree of reproductive capacity within river systems as well as in migratory fish, which helps maintain sea trout stocks. We are carefully monitoring the performance of sea trout populations in Northumberland rivers, where recent rod catches are showing an upturn, and our electric fishing results show juvenile sea trout are widespread in the accessible parts of all the area's rivers.

We are proposing to shorten the season for a sea trout net fishery from 2019, so that only a small number of salmon are likely to be captured. In T nets, many salmon, especially larger multi-sea winter fish, are retained free-swimming in the bags or pockets forming the terminal headpiece of the net. With care, these fish can be removed with relatively little damage. It is less easy to remove any salmon caught in J nets, but so few salmon are caught that losses are predicted to be very low.

20. Compensation

Closing fisheries is not an action that can be taken without careful consideration. In reaching our position, we have followed the North Atlantic Salmon Conservation Organisation (NASCO) guidelines and applied the Precautionary Approach to the conservation and management of salmon populations, thereby giving priority to conserving and protecting salmon stocks. We accept that this will not make the outcome of this decision easy to receive. We have followed the Regulators' Code and the statutory principles of good regulation as well as our duty to have regard to economic and social wellbeing. We have given appropriate consideration to the potential impact of our proposed byelaws on economic growth, both for individual businesses and more widely, alongside consideration of our statutory duty to maintain, improve and develop fisheries.

We do understand that the byelaws will put a financial impact on net licence holders. We have not taken our decision lightly and have based it on grounds of ensuring stocks exist at a sustainable level in the future.

Claims for compensation can only be considered once any byelaws have been confirmed. There is a power to pay compensation to fishermen in the Water Resources Act 1991 who are "injuriously affected by a byelaw" but it is for the Minister to decide whether the payment of compensation should be considered in any particular case. There is no freestanding right to payment for any net fishermen affected.

Compensation for riparian owners and angling clubs

Claims for compensation can only be considered once any byelaws have been confirmed by the Minister. After confirmation, we could consider any claims for compensation relating to byelaws which injuriously affected a person, and come within the scope of those byelaws eligible for compensation, and based on individual circumstances of the person affected. The byelaw package that is submitted to Defra and the Minister will include an economic assessment of likely costs and savings in respect to both the environment and the livelihoods of individual sectors.

21. A Generic objection to methods

Improved catch and release practices can contribute to the number of fish available to spawn. For example, for a fishery that catches an average of 200 salmon per season an increase of 10% catch and release from 90 to 100% would see an additional 20 salmon not being killed. Improving the survival rates of the fish returned from 80% to 90% would also equate to an additional 20 salmon, when combined together these two changes in rod fishery practices would result in an extra 40 salmon surviving to spawn.

We consider that maximising the survival of caught and released salmon is equally as important as improving the levels of catch and release for salmon. The Angling method byelaws as well as measures delivered by codes of practice should and will contribute to increasing numbers of surviving salmon. The method restrictions would not come into force until 2019 to allow anglers to plan for any changes that are confirmed.

21b. Low mortality rates around catch and release (when practiced correctly)

Studies show (see link to report below) that the survival of rod caught and released salmon can exceed 90% when best practice techniques are used.

<https://www.gov.uk/government/publications/impact-of-catch-and-release-angling-practices-on-survival-of-salmon>

21c. Should barbed hooks be prohibited by byelaw when fishing using flies, lures or bait?

The evidence suggests that barbless hooks are consistently less damaging and lead to faster unhooking times than barbed hooks. However we recognise the impacts of applying this byelaw when fishing for either salmon or sea trout (which we consider is necessary for its effective enforcement) would have. We therefore consider that the use of barbless or de-barbed hooks is best promoted through catch and release best practice, rather than required through a new national byelaw.

22. Should treble hooks be prohibited by byelaw when fishing using flies, lures and bait?

We do not consider that there is sufficient justification for the outright prohibition of using treble hooks when fishing for salmon or sea trout. We also do not consider it appropriate to only prohibit their use when fishing for salmon, due to difficulties in effective enforcement.

We do consider that the treble hooks should be prohibited when fishing with lures and that their size is restricted for fishing with flies or when using prawn and shrimp as bait. This is to reduce the risk of damage to fish and enable fish to be easily unhooked.

23. Restriction on the use of flying 'C's

The responses to this question and on the use of treble hooks from our initial consultation have highlighted the importance of hook type over the type of lure used. We have also considered the enforceability of a byelaw solely for flying 'C's. We have concluded that all lures should only be used with a single hook (rather than double or treble hooks).

24. Flying C's are bad but so are other methods.

Fishing carries with it an inherent risk to individual fish. Because of this we have considered Flying C's alongside other artificial lures and have concluded that all lures should be fished with single hooks rather than double or trebles.

25. Should barbless hook be prohibited by byelaw?

There is a school of thought that barbless hooks can penetrate a fish more deeply and can rotate during the fight to retrieve the fish thereby causing more damage and reducing the

chance of survival for the fish. The overwhelming evidence suggests that barbed hooks are harder to remove, can cause more damage and increase the amount of time the fish is being handed. This can significantly reduce the chances of survival of the fish. We have concluded that we will not be seeking to prohibit or restrict the use of barbless hooks.

26. We should ban worming?

The practice of fishing for salmon and sea trout using worms as a bait is highly variable around the country. In some cases banning worms would effectively stop fishing on some rivers. Where we believe that use of worms as a bait has the potential to impact on fish stocks we will consider using voluntary methods or a local byelaw.

27. You cannot prescribe methods as this will just alienate everyone who is already angling responsibly

We appreciate that most anglers operate in a responsible way and at a skill level that minimises damage to fish and increases the chance of their survival if released. Some methods are known to increase this risk no matter how skilled the angler. We have examined evidence and chosen, rather than ban methods totally, to regulate hook types and sizes. This is because hook type and size is one of the main factors affecting survival rates. This will see an increase in survival and recruitment whilst still allowing anglers to fish the most appropriate methods for themselves. We will look to encourage best practice in using other methods through voluntary means and local agreements.

27a. Smaller hooks cause more damage than larger ones?

We have chosen to restrict the size of hooks for salmon fishing as the available evidence indicates that the greatest risk to salmon is from the use of larger hook sizes. Larger hooks have thicker gauged wire and consequently have a higher risk of causing more damage to fish. We are aware that smaller hooks are predominantly used for sea trout and for salmon fly fishing under low flows which we do not wish to in-advertently preclude. Clearly, hooks of any size could potentially be swallowed by a fish and we are actively promoting best practice angling and catch and release methods with the Angling Trust and Atlantic Salmon Trust to minimise this possible risk of injury to maximise salmon survival post catch and release.

We have assessed a number of hook models and a 7mm gape width essentially equates to a size 8 treble. We therefore do not believe that requiring this as a maximum hook gape size will be unduly restrictive to salmon fishing with flies and prawns. There is an intention that local measures will be applied to deal with worm fishing depending on the nature of the local fishery. In many cases, worm fishing is already subject to significant local voluntary controls on many river catchments in recognition of the particular risks this method poses to the safe release of salmon.

27b. Response to fishing lures with single hooks only.

We have received a wide range of views on the angling method byelaws that we have proposed, with concerns being specially raised as to the effectiveness of Rapala type lures being fished with single hooks only. Both Rapala type lures and Flying Cs are commercially available with single hooks fitted, as are the hooks themselves. There are also a number of articles on the internet which show how to rig and fish these types of lures with single hooks so that they fish effectively.

27c. Other gear suggestions

I also note your suggestion about **an annual bag limit of 3 salmon and 3 sea trout, and a maximum size limit of 100 cm. – insert as required** We believe the current proposals provide the right mix to protect and help restore stocks at present. However, we have powers to introduce such measures if future stock assessments direct us to intervene further.

Updated methods statement

We are looking very closely at the angling method byelaws and are further considering what can be usefully put forward as a national byelaw and what may sit better within a code of practice. This consultation has been very helpful in flushing out the pros and cons for various courses of action.

Other Objections

28. Marine fishery exploitation concerns

Why are we not stopping offshore and high seas fisheries from over fishing species which salmon prey on, such as prawn and sandeels?

The Environment Agency has no role in managing the quotas for species such as prawns and sandeels in the offshore and high seas fisheries. However, we have raised the issue with relevant departments within Defra.

The International Council for the Exploration of the Sea (ICES) based in Copenhagen, Denmark, comprises of 20 member nations including: Belgium, Canada, Estonia, France, Iceland, Ireland, Latvia, Lithuania, Poland, Portugal, Spain, and the United States. It also has affiliate institutes with observer status from: Australia, Chile, Greece, Peru, and South Africa. Formal observer status has been given to two non-governmental organisations: Worldwide Fund for Nature and Birdlife International.

ICES provides unbiased scientific advice to member nation governments and international regulatory commissions in support of the management and conservation of coastal and ocean resources and ecosystems. Advice on the management of 135 separate finfish and shellfish stocks is provided to the North-East Atlantic Fisheries Commission (NEAFC), North Atlantic Salmon Conservation Organisation (NASCO) and the European Commission (EC).

The response to this advice and subsequent management of the exploitation of these stocks falls to relevant individual national governments or international regulatory commissions e.g. EU Common Fisheries Policy depending on the nature and location of the fishery.

29. Could the changes in population numbers and composition not be due to natural cycles in the population?

The strong evidence of grilse and multi-sea-winter (MSW) salmon population cycles should not be viewed in isolation from other key facts about salmon population biology.

At the last period of MSW salmon dominance in the 1960's, the survival of salmon at sea was in the region of 20% or more. Nowadays we are seeing sea survival of around 5%. Over this time there has also been a continual decline in the average size of same aged fish. There are also an estimated 5 million less salmon in the North Atlantic countries now, compared to 30 to 40 years ago. All this information together, does not afford the likelihood of salmon returning to previous levels of abundance in the years to come, despite the grilse/multi sea winter salmon cycle.

30. How do you consider the socio and economic effects on measures that you propose?

Our primary objective in managing salmon populations is the conservation or restoration of stocks. However, when considering new regulations we look carefully at their potential socio and economic impacts. In doing this we consider:

- Whether proposed measures will have an unreasonable effect on someone's livelihood (e.g. net fishing) or the value of their property (e.g. fishing rights)

- Effects on different groups – we consider the balance of impacts on commercial and recreational fisherman
- The effect on the viability of fisheries
- Heritage value: where fishing methods are unique to a very small number of locations, we consider retaining a residual fishery and/or permitting a low level of catch

31. Why do the dates for nets and rods commence at different times?

A number of respondents to the initial consultation questioned why different dates apply to the end of the National Salmon byelaws for rod (15 June) and net (31 May) fisheries, or argued that similar end dates should apply to both fisheries. Spring salmon are defined as those salmon that enter freshwater before 1 June. Following their entry into freshwater, spring salmon are considered to be most vulnerable to capture by rod and line angling for a period of around 2 weeks. Delaying the lifting of National Salmon byelaw restrictions to 16 June for rod fisheries therefore provides protection for any spring salmon that passed through the estuaries and entered freshwater immediately prior to 1 June.

Illegal fishing / pollution

If you see or have knowledge of incidents of illegal fishing or pollution in the waters that you fish then please report these at the time to the Environment Agency 24-hour Incident Hotline number **0800 80 70 60**. Also if you wish to have feedback on the Environment Agency response to any reports you make then actively ask for feedback when you ring in.

31a. Ban all netting

We have taken the decision that salmon stocks on rivers that are classified as At Risk or Probably at Risk should have the take of salmon from them reduced further and these proposed byelaws will see the taking of salmon prohibited by 2019. Where a river's salmon stock has been classified as Not at Risk or Probably Not at Risk we consider it to have some level of harvestable surplus, and these rivers are therefore not likely to be subject to additional controls on the take of salmon at the current time unless local evidence requires this.

With many net fisheries, there are also cultural elements and livelihood concerns that we also need to take into account. We can however confirm that new licences cannot be passed on if there is a zero NLO in place. Furthermore, we are not able to enable net licences to be passed on to the relations of existing netmen as we have a need to follow an open and transparent net licensing process within a public fishery.

31b. Ban all netting at sea

With regards to high seas fisheries, the Environment Agency only has a regulatory role for fisheries in freshwater and the sea out to 6 nautical miles. We do not regulate high seas fisheries, but through Defra and the International Council for the Exploration of the Seas (or ICES), we advise the North Atlantic Salmon Conservation Organisation (NASCO) which negotiates quotas for high seas salmon fisheries, principally the Faroese and Greenland fisheries. High seas fishing boats cannot land salmon in England.

32. Alternative approaches to regulating the net fishery by reducing fishing effort

Without action we risk the collapse of our salmon stocks and there is wide agreement that further action is required. Other nations including Scotland, Northern Ireland and the Republic of Ireland, have already closed their net fisheries and the latest evidence from

English rivers us to conclude, regrettably, that a similar course of action should be recommended here.

We have carefully considered other approaches, including shortening the salmon season and introducing a catch limit for salmon. However, we take the view that these approaches would not achieve our conservation objectives for salmon, since these options would still allow a large number of salmon be caught, including salmon from stocks which we have identified as having no harvestable surplus available for exploitation.

33. Phasing in changes to the England net fishery rather than immediate introduction

Without action we risk the collapse of our salmon stocks. Having taken into account the latest evidence available relating to the status of salmon populations in English rivers, and the impact of the various fisheries, we have concluded that, for the necessary better protection of salmon stocks, the drift net should close in 2018 and the other net fisheries to close for salmon in 2019, to confer this protection in a timely way.

The new byelaws will affect salmon fisheries across England and not just the North East. In the Yorkshire and North East coastal net fishery, we have reluctantly taken the decision to recommend the closure the drift nets this year as these have the greatest impact on stocks. This will be dependent on byelaw confirmation before June 1st

34. All salmon should be released all year by any method

We have taken the decision that salmon stocks on rivers that are classified as At Risk or Probably at Risk should have the take of salmon from them reduced further. Where a river's salmon stock has been classified as Not at Risk or Probably Not at Risk we consider it to have some level of harvestable surplus, and these rivers are therefore not subject to the further controls on the take of salmon that are proposed by the new byelaws.

35. Catch and release on NW SAC rivers

Salmon are a qualifying feature of the River Eden Special Area of Conservation (SAC) and an interest feature of the River Eden Site of Special Scientific Interest (SSSI). The first of these designations is of particular importance as it requires the Environment Agency, as a competent authority, to apply the precautionary approach to ensure that any measures introduced have no likely significant effect on the integrity of the SAC to the satisfaction of Natural England. This applies equally to measures appropriate to the River Eden rod fishery and to the Solway Firth haaf net fishery. A Habitats Regulations Assessment (HRA) has been produced to support our preferred option. The citation and conservation objectives for this site can be found using the link below.

<http://publications.naturalengland.org.uk/publication/5935614042046464>

The stock has not met the management objective (MO) of meeting conservation limit (CL) in four years out of five and therefore cannot be considered to be at a sustainable and safe level. In addition, because the River Eden failed to achieve its CL in 2013 and 2014, the River Eden SAC is considered to be in "Unfavourable Condition" for salmon because the achievement of the MO for salmon also dictates condition status of the SAC. This reinforces the need to take significant action to address the shortfall in salmon egg deposition in this catchment.

In summary we believe that we must introduce a regulatory package that is sufficiently robust to reduce allowable losses of salmon to no more than 1% of CL of each major fishery. These losses include the direct killing of salmon and losses associated with catch-and-release fishing. The HRA supports the need for the proposed 100% C&R on both the Eden rod fishery and the Solway net fishery.

36. Net and rod fishermen aren't able to deplete salmon stocks

When salmon stocks are below their minimum safe spawning levels, further reducing their numbers is likely to result in fewer salmon in future generations. Thereby stopping or slowing their recovery to sustainable levels. Although net and rod fisheries in England that target salmon only catch a proportion of the salmon returning to a river, it is still likely that, when stocks are below their minimum safe levels for that river, the take of a proportion of these fish would affect the sustainability of that salmon stock in the future.

Rod variant:

When salmon stocks are below their minimum safe spawning levels, further reducing their numbers is likely to result in fewer salmon in future generations. Thereby stopping or slowing their recovery to sustainable levels. Although we know that anglers typically catch between 10 – 30% of a rivers annual returning salmon stock, it is still likely that, when stocks are below their minimum safe levels for that river, the take of a proportion of these fish would affect the sustainability of that salmon stock in the future.

37. Delay

These byelaws were due to come into force during 2018. As a result of delays in the original consultation, due to the General Election, and the very substantial levels of interest and volume of responses to the statutory advertising of the proposed byelaws we will not be seeking implementation of the Byelaws until 2019. To proceed this year would have meant bringing in new byelaws mid-season which would be unacceptable to the Environment Agency, licensed netsmen and rod anglers in respect to licence duties, clarity in rules and the uncertainty on individuals' and business' income.

These proposed byelaws will close the drift nets from 2019 and seek to prohibit the take of salmon from all other net fisheries in England that are classed as 'At Risk' or 'Probably at Risk', i.e. with no harvestable surplus. There will also be further restrictions on the recreational rod fisheries to demonstrate some parity with the nets and further reduce the take of salmon. The T and J net fisheries along the Yorkshire and Northumbria coasts will only be allowed to take sea trout with a shortened fishing season.