Consultation response report

Options for extending the sea trout beach net fishery in Yorkshire and North East England

March 2020

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1. Executive Summary

Between June and August 2019, the Environment Agency undertook extensive field trials of modified designs of nets in the Yorkshire and North East beach net fishery to determine whether these modified nets could be used to catch sea trout preferentially to salmon.

The results of the trials show that the modified nets proved successful in intercepting sea trout whilst only entangling a small number of salmon, and that the impact on salmon stocks from the modified nets was low. The impact of an extended sea trout net fishery on sea trout stocks was found to be less certain, since large numbers of sea trout were caught during the trial period.

Following the 2019 net trials, a number of options were developed for potentially extending the beach net fishing season for sea trout. Each option would have some degree of impact on the livelihoods of beach net licensees and on the stocks of salmon and sea trout exposed to the net fishery.

The Environment Agency undertook a public consultation for a period of five weeks between Monday 20th January and Friday 21 February 2020. The consultation sought views from interested parties on the possible options to extend the beach netting season for sea trout in Yorkshire and the North East.

A total of 527 online responses were received. Of these, 463 (87.9%) were from individuals and 45 (8.5%) were from organisations. The remaining 19 (3.6%) responses were recorded as 'other' or no response to this question was made. A further 9 written responses were received by post, and 26 by direct email, bringing the total number of responses to the consultation to 562.

The results of the consultation are unequivocal, with a 93% majority opposed to any extension of the current sea trout netting season, and 7% in favour.

A total of 296 responses clearly identified a preferred management option, including management options not included in the consultation, which were put forwards by consultees.

The most supported option for the future management of the beach net fishery was complete closure of the beach net fishery, followed by further reducing the netting season length. Both these management options were suggested by consultees. Maintaining the current season length was the third most supported option.

In regulating the fishery, we seek to achieve the best balance between providing vulnerable stocks with much needed added protection, while minimising the economic and social impacts of regulating the beach net fishery for sea trout, allowing a sea trout fishery as far as is sustainable and consistent with providing adequate protection for fish stocks, in line with precautionary principles. The benefits of extending the sea trout net fishery must therefore be carefully balanced against any increased risks to stocks of salmon and sea trout provided by increased netting opportunities.

We recognise that factors other than exploitation in net fisheries impact upon salmon and sea trout stocks, and that marine survival is one of the most important of these factors. We are working with partners to address all factors affecting salmon and sea trout stocks under the Salmon Five Point Approach, including water quality, fish habitat and access improvements, as well as working to better control levels of exploitation.

We have assessed management options against the latest available evidence describing the performance of contributing stocks of salmon and sea trout, the impact of the net fishery upon those stocks, the results of the modified net trials, the wider regulatory and policy framework and the socio-economic impacts for those participating in the fishery. We have also carefully considered the responses made to this consultation.

Having reviewed the evidence and all consultation responses, and considering all other factors, we find it is not appropriate or precautionary to recommend an extension to the sea trout netting season at this time.

The best balance between providing contributing fish stocks with necessary protection and allowing a fishery as far as that is sustainable is achieved by allowing those netsmen currently operating in the fishery to continue to do so, over the current netting season and continuing to reduce the size of the net fishery over time as current licensees retire.

Whilst an immediate closure of the beach net fishery, or a reduction in the length of the netting season would provide increased protection for sea trout and salmon stocks, our view is that following the increased protections introduced by the 2018 national byelaws, a further reduction in fishing effort is not required at this time.

The option to require beach nets to adopt the modified designs tested during the trials for the existing net fishing season would reduce netting efficiency for sea trout at times when few salmon are likely to be netted. This would be likely to reduce net catches of sea trout, generating a further economic dis-benefit for licensees. Given the low numbers of salmon likely to be intercepted during the current sea trout netting season, this option would create an unnecessary burden for licensees for a marginal benefit. Therefore, this option is not supported.

We will continue to monitor and review the performance of salmon and sea trout stocks contributing to the beach net fishery in the North East and Yorkshire, and the impact of the net fishery upon those stocks.

Should sea trout populations improve to the extent that there is an identified harvestable surplus available, the potential to extend the net fishing season should be re-assessed, as the trial results indicate that modified nets can selectively exploit sea trout.

Having carefully reviewed and considered all relevant evidence, the following recommendations are made:

1. The current sea trout netting season dates in each district in the Yorkshire and North East net fishery should be maintained, as defined by the 2018 national salmon and sea trout protection byelaws.

2. The management of the beach net fishery should be formally reviewed, including the potential to extend or restore the netting season for sea trout, as part of developing a new Net Limitation Order, on or before December 2022.

2. Introduction

As part of our duty to maintain, improve and develop salmon and sea trout fisheries in England, the Environment Agency has the power under the Salmon and Freshwater Fisheries Act 1975 (SAFFA) Section 26 to licence fishing for salmon and migratory trout, and the power to make fisheries byelaws in England, under Section 210 and Schedule 25 to the Water Resources Act 1991 and the Scotland Act 1998 (Border Rivers) Order 1999.

To better protect vulnerable fish stocks, the Environment Agency and its predecessors have been reducing the salmon and sea trout net fishery in Yorkshire and the North East since 1992, initially reducing the number of drift nets only, then from 2012 extending the reduction to beach nets. This approach was taken to better protect stocks of salmon and sea trout in such a way that the economic impact for net fishermen was minimised. Under the provisions of the 2012 Net Limitation Order, as net licensees retire, their licences are not available to other potential licensees. This approach reduces the size and impact of the net fishery over time, to better protect fish stocks in a way that also protects existing netsmen from financial hardship.

In December 2018, new national byelaws were confirmed by the Fisheries Minister for the better protection of salmon stocks. These byelaws had a significant impact on the North East and Yorkshire coastal net fishery, which typically accounts for around 95% of the salmon net catch in England.

The 2018 byelaws closed the drift net fishery completely. The beach net fishery, comprising T nets and J nets was closed for salmon, but allowed to continue to fish for sea trout only, generally over a shorter netting season, depending on the number of salmon typically taken in that part of the net fishery.

These changes were introduced to offer increased protection to vulnerable salmon stocks, while still allowing a sea trout fishery in the earlier part of the year, as far as that was consistent with protecting salmon stocks. The end date for each district of the net fishery was set at that date after which it was determined that the level of bycatch on salmon became too large.

The 2018 byelaws placed a substantial financial burden on licensees. To mitigate the impact of the byelaws, the Fisheries Minister instructed the Environment Agency to investigate the possibility of extending the T and J net netting season for sea trout only, if this was possible without impacting those salmon stocks exposed to the fishery.

Between June and August 2019, the Environment Agency undertook extensive field trials of modified designs of nets in the Yorkshire and North East beach net fishery to determine whether these modified nets could be used to catch sea trout preferentially to salmon.

The results of these trials show that the modified nets proved successful in intercepting sea trout whilst only entangling a small number of salmon, and that the impact on salmon stocks from the modified nets was low. The impact of an extended sea trout net fishery on sea trout stocks is less certain, since large numbers of sea trout were caught during the trial period.

The results of the trials are available in an online report, together with a report setting out options for the future management of the net fishery, and links to video footage of the nets in operation during the trials at Filey and South Shields – see https://consult.environment-agency.gov.uk/north-east/yorkshire-and-north-east-coastal-sea-trout-fishery/

Our first priority is the conservation of salmon and sea trout stocks, but we are mindful of the impact of our regulations on commercial netsmen. We are seeking to achieve the best balance between providing vulnerable stocks with necessary protection and minimising the economic impacts for netsmen by allowing a sea trout net fishery as far as this is sustainable and consistent with providing adequate protection for fish stocks.

Our latest stock assessments indicate the majority of the salmon populations in England exposed to the beach net fishery are ‘probably at risk’ emphasising the need to prohibit exploitation of salmon in coastal nets. A number of salmon populations in Scotland contributing to the net fishery

are also assessed as requiring management action to reduce exploitation of the stock to zero in 2020.

The latest assessments of sea trout stocks contributing to the coastal net fishery also indicate many of these stocks are also ‘probably at risk’ indicating a precautionary management approach should be adopted.

The benefits of extending the sea trout net fishery must therefore be carefully balanced against any increased risks to stocks of salmon and sea trout provided by increased netting opportunities.

Following the 2019 modified net trials, a number of options were developed for potentially extending the beach net fishing season for salmon. Each option would have some degree of impact on the livelihoods of beach net licensees and on the stocks of salmon and sea trout exposed to the net fishery. The main options are summarised below:

Option 1. Maintain the current beach netting season with no extension

This option would not provide any extension to the current netting season using modified nets, maintaining the existing regulation of the fishery under the existing national and regional byelaws.

Option 2. Extend the beach netting season on a trial basis in 2020

Restoring the netting season to the whole of the beach net fishery as part of an extended trial in 2020 would provide a more comprehensive and robust evidence base on which to evaluate the impact of netting on salmon and sea trout stocks.

Option 3. Partially restoring the beach netting season for sea trout

Netting for sea trout could be partially restored to balance providing necessary protection for salmon and sea trout stocks intercepted by the fishery and enabling licensees to derive economic benefit from netting sea trout.

This option would see an impact on catches intermediate between Option 1 and Options 2 and 4, and provide an intermediate level of economic benefit for licensees.

Option 4. Fully restoring the beach netting season for sea trout

Reverting to the historic netting season end date of 30 August would provide the greatest economic benefit for licensees, by maximising their opportunity to catch sea trout.

This option would provide the lowest level of protection for salmon and sea trout stocks exposed to the beach net fishery. Fully restoring the sea trout netting season would increase the numbers of salmon entangled in the beach nets by the greatest extent.

A further supplementary option was also presented:

Extending the use of modified designs of nets to the whole of the netting season

Results from the trials of modified T and J nets indicate that both designs, particularly the modified T net, are significantly less efficient at intercepting salmon than the traditional designs of net.

In order to minimise the impact of sea trout netting on salmon stocks, and to reduce the potential injury to salmon which may become entangled in the nets and require release, a requirement to use the modified designs of T and J nets over the whole of the netting season could be introduced.

Use of the modified designs of net would be likely to result in lower catches of sea trout and therefore reduce the economic benefit for licensees.

This option could be adopted in parallel with any of the four options described above.

3. Public consultation

3.1 Consultation summary

The Environment Agency undertook a public consultation for a period of five weeks between Monday 20th January and Friday 21 February 2020.

The consultation sought views from interested parties on the possible options to extend the beach netting season for sea trout in Yorkshire and the North East.

This consultation was developed for anyone who fishes for, or has an interest in, the salmon and sea trout populations in North East England and Eastern Scotland, their conservation and management, including:

- commercial sea trout netsmen and their representative organisations
- anglers, their representative organisations and those who own, lease or manage fishing for salmon and sea trout
- other businesses that support, or are supported by sea trout fishing
- salmon and sea trout conservation organisations
- other conservation organisations and Non-Governmental Organisations such as Wildlife Trusts and Rivers Trusts
- government agencies and authorities including Inshore Fisheries and Conservation Authorities and Natural England
- members of the public with an interest in salmon and sea trout management and conservation

The objectives of the consultation were to:

- describe the Yorkshire and North East coastal net fishery and summarise the historic management, levels of participation, catches and contributing stocks of salmon and sea trout.
- present the results of field trials undertaken in 2019 assessing the performance and operation of modified forms of beach nets in Yorkshire and the North East
- describe the current status of salmon and sea trout stocks exploited by the beach net fishery
- present possible options for extending the season length in the beach net fishery for sea trout
- seek views on the range of options presented from those who would be affected by or have an interest in them
- quantify and evaluate the extent of likely impacts or benefits of the presented options on salmon and sea trout stocks
- understand from your perspective the likely impacts and benefits to the wider environment of the options presented
- engage with stakeholders who have an interest or involvement in management of the beach net fishery so that we have sufficient information to be able to meet our duties if we propose to change the regulation of the fishery.

Responses to the consultation could be made via an online questionnaire on the consultation website, by email or by post.

3.2 Consultation responses

A total of 527 online responses were received. Of these, 463 (87.9%) were from individuals and 45 (8.5%) were from organisations. The remaining 19 (3.6%) responses were recorded as 'other' or no response to this question was made. The majority of responses came from anglers or others with an interest in rod fishing.

A further 9 written responses were received by post, and 26 by direct email, bringing the total number of responses to the consultation to 562. A small number of postal and email responses duplicated submissions made via the online consultation website.

Responses provided representations from 54 organisations. A summary of organisations who made a response to the consultation is given in Appendix 1.

4. Consultation feedback

In addition to expressing support or objection for the options presented, consultees recommended other options, suggested management actions and highlighted issues they felt were important for the management of the net fishery and the maintenance and improvement of salmon and sea trout stocks. These responses are summarised and considered below.

4.1 Support for netting season extension

Of the 519 respondents who expressed a clear preference, 36 (7%) supported extending the sea trout netting season (either in an extended trial or permanently) whereas 483 (93%) were opposed to any extension to the season, as shown in Figure 1 below:

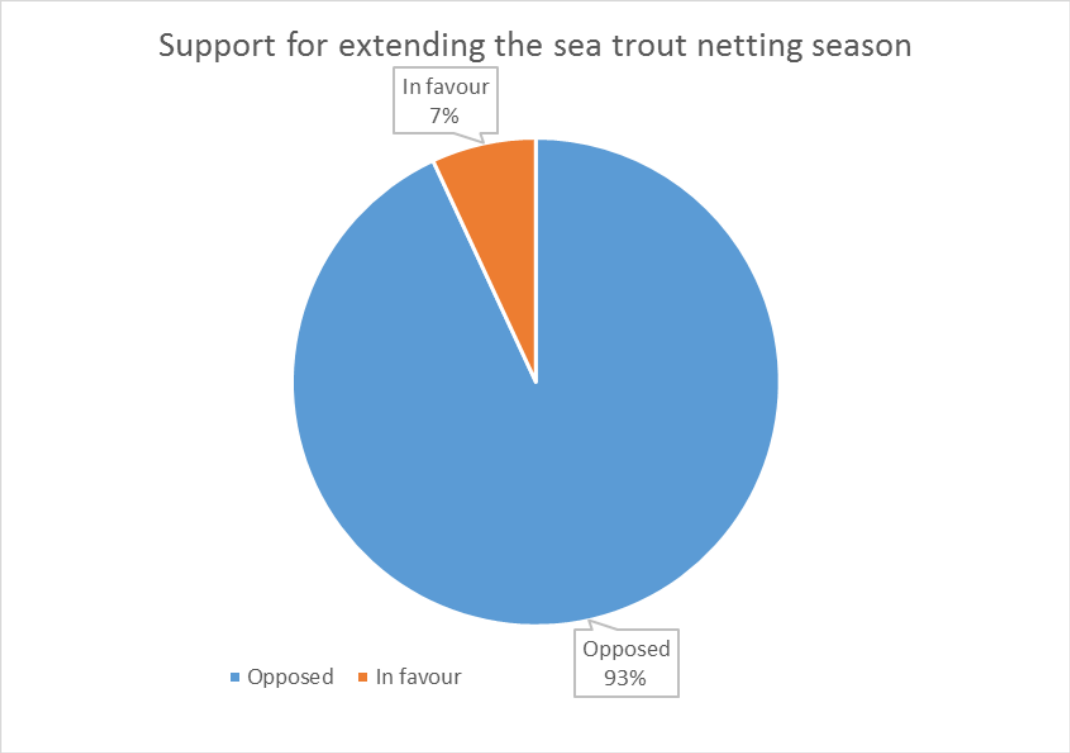

Figure 1. Support for extending the sea trout netting season

4.2 Support for specified management options

A number of respondents indicated they were opposed to an extension to the sea trout netting season, but did not identify their preferred option for the future management of the net fishery.

A total of 296 responses clearly identified a preferred option, including two additional management options not included in the consultation. These were to close the net fishery entirely, or to further reduce the length of the netting season.

From these replies, the most frequently mentioned preferred management option was the complete closure of the beach net fishery for sea trout, which was proposed by 182 consultees.

A further reduction in the length of the netting season was suggested by 41 consultees.

Support for fully restoring the netting season was indicated by 32 respondents. There was no support for a partial restoration of the netting season, and very little support for extending the trial of modified nets.

The supplementary option of extending the use of modified designs of nets to the whole of the netting season was supported by 18 consultees.

Support for the four options presented in the consultation report, and the two additional options suggested in responses to the consultation is shown in Figure 2 and Table 1 below:

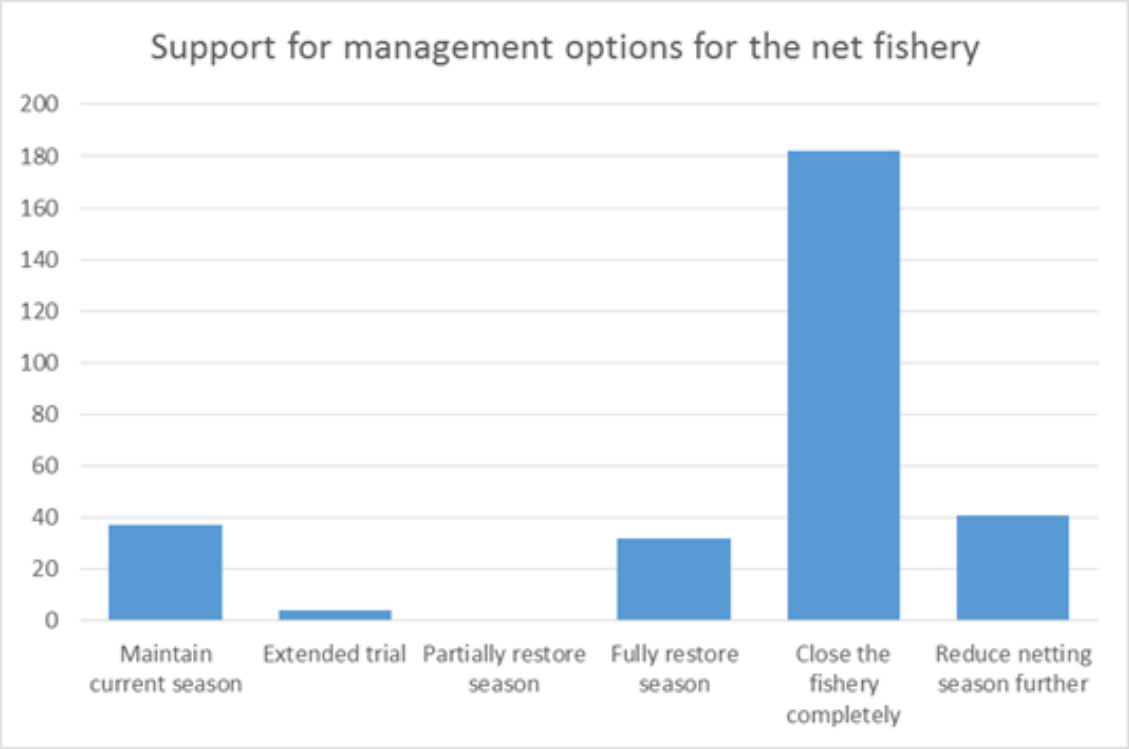

Figure 2. Support for options for the future management of the net fishery

Management option	Support	%
Option 1: Maintain current netting season	37	12.5
Option 2: Undertake an extended trial of modified nets	4	1.4
Option 3: Partially restore the netting season	0	0.0
Option 4: Fully restore the netting season	32	10.8
Consultee option 1: Close the sea trout net fishery	182	61.5
Consultee option 2: Reducing netting season length	41	13.9
Total	296	100.0

Table 1. Support for options for the future management of the net fishery

The option to close the sea net fishery was the most frequently recommended approach, representing 61.5% of all option recommendations. Full restoration of the sea trout netting season was made by 32 respondents, representing by 10.8% of all option recommendations.

5. Key issues and suggested actions

The main issues of concern raised and management actions recommended as part of the consultation process are summarised below, with a brief Agency response.

5.1 Closure of the beach net fishery or further reducing the season

The existing beach net fishery is unsustainable and operates on stocks of sea trout that are identified as being 'Probably at Risk' and/or with historically low sea trout rod catches. The net fishery should be closed entirely, or the season should be further reduced to protect sea trout stocks and protect salmon stocks from by-catch mortality.

Our response

Our remit for the sea trout net trials and the subsequent consultation was specifically to consider opportunities to extend the length of the sea trout netting season, if that was possible without impacting on salmon stocks exposed to the fishery. Consequently, options to close or further reduce the length of the netting season were not included in our consultation.

The current regulation of the fishery, including the length of the netting season, was carefully reviewed when the 2018 national byelaws were developed.

We worked using the latest and most complete evidence available relating to the status of salmon populations in English rivers, and the mode of operation and impact of the drift and beach nets upon those populations.

This evidence includes catch returns for net and rod fisheries, electric fishing, fish counter and other scientific monitoring data, and the results of tagging and genetic investigations using the latest techniques and analyses.

Our use of Management Targets and Conservation Limits to provide an objective assessment of the performance of salmon populations is a well-established, nationally consistent approach. Our assessments of salmon stocks are based on internationally accepted methods and are reviewed to ensure they provide us with the most accurate estimates of stock performance possible.

Our foremost consideration is the conservation of salmon and sea trout stocks, but we are mindful of the economic impact of our regulations on those who rely on fishing for salmon and sea trout as part of their livelihoods.

In regulating the fishery, we seek to achieve the best balance between providing vulnerable stocks with much needed added protection, while minimising the economic and social impacts for netsmen. This is achieved by allowing a sea trout net fishery as far as this is sustainable and consistent with providing adequate protection for fish stocks.

We agree an immediate closure of the beach net fishery, or a reduction in the length of the netting season would provide increased protection for sea trout and salmon stocks.

However, our view is that, following the increased protections introduced by the 2018 national byelaws, the best balance is achieved by allowing those netsmen currently operating in the fishery to continue to do so for sea trout only, if they wish, but to continue to reduce the size of the net fishery over time on a voluntary basis, as existing licensees retire.

5.2 Compensation should be paid to licensees to leave the fishery

Compensation should be paid to existing licensees to either encourage them to leave the fishery voluntarily (effectively operating as a buy-out mechanism) or in recompense for the mandatory closure of the fishery by legislation.

Our response

Section 212 of the Water Resources Act 1991 provides that the Environment Agency may pay compensation to persons injuriously affected by byelaws as it considers appropriate. The decision whether to exercise our powers to pay compensation rests with the Environment Agency alone, and is at its discretion.

We have invited licensees to submit claims for compensation for losses incurred from the 2018 byelaws, and are currently carefully considering those claims.

We may offer compensation to those netsmen injuriously affected by the 2018 national salmon byelaws in respect to their losses from salmon netting and from sea trout netting in any portion of the netting season they have lost as a result of shortening the netting season, whether they choose to continue fishing for sea trout only, or retire from the net fishery completely.

We are continuing to work to finalise the assessment process and the decisions that must be considered for all the claims we have received. This process will be concluded in the early part of 2020.

5.3 Cultural and economic value of the net fishery

The beach net fishery has a significant cultural and economic value in the North East and Yorkshire, and helps support and sustain economic activity in coastal communities, including promoting tourism.

Our response

Our primary objective in regulating the beach net fishery is the conservation or restoration of stocks of salmon and sea trout to healthy and self-sustaining levels. However, when reviewing regulations we look carefully at their potential social and economic impacts. We seek to maintain a net fishery as far as is possible, consistent with achieving our management aims for the protection of salmon and sea trout stocks.

In determining our position, we follow the NASCO guidelines and apply the Precautionary Approach to the conservation and management of salmon populations, thereby giving priority to conserving and protecting salmon stocks.

We follow the Regulators' Code and the statutory principles of good regulation as well as our duty to have regard to economic and social wellbeing.

We give appropriate consideration to the potential impact of our proposed regulations on economic growth, both for individual businesses and more widely, alongside consideration of our statutory duty to maintain, improve and develop fisheries.

We understand that our regulation may place a financial burden on licensees and we seek to maintain a net fishery where to do so would not impact on salmon stocks.

In 2018, as part of a national salmon and sea trout byelaw review, the Environment Agency commissioned an economic evaluation of the net fishery. This study estimated an average gross income per licensee per season of around £25K for T netsmen and approximately £7K in the J net fishery.

It should be noted that these average values may not reflect the individual income of licensees, some of whom expend a relatively low level of effort, whilst others utilise a high proportion of their available fishing time.

A previous Environment Agency study of 2012 yielded similar results using estimated first sale values and reported catches. The average estimated first sale incomes to each beach net licensee was £10.3K and ranged from £3K to £39.5K

Commercial fishing is widely considered to contribute to tourism in coastal communities, either from the value people derive from watching the boats and unloading of the catch or the fact that fresh fish and shellfish can be bought locally and in the enjoyment of eating locally caught produce.

Coastal towns such as Amble, North Shields, Whitby and Filey have a strong fishing heritage and other coastal communities continue to have a fishing brand as part of their attraction to tourists.

However, the degree to which any reduction in netting for salmon and sea trout might deter or reduce tourism, in light of the wide range of other fishing activities and tourist attractions in coastal locations is unclear.

Whilst there is a strong tradition and heritage of fishing along the North East and Yorkshire coast, it should be recognised that the technology employed in the manufacture of modern salmon and sea trout nets was developed only 50 years ago, and that netting for salmon and sea trout using these types of net does not reflect the continuation of a long held traditional method of fishing in the net fishery.

Although commercial fishing is primarily undertaken for monetary gain, many licensees in the North East net fishery gain a significant level of satisfaction and enjoyment from net fishing activities. It is not possible to quantify this level of enjoyment, but it is recognised that reduced fishing opportunities are likely to provide a commensurate reduction in the personal enjoyment licensees derive from their participation in the net fishery.

5.4 The economic and social value of the recreational rod fishery

Recreational rod angling is an important part of the rural economy of Yorkshire and the North East, and is closely linked to the number of fish available for rod fishermen in each river. The loss of sea trout, and any by-catch mortality of salmon in the net fishery had a detrimental effect on returning runs of adult fish, adversely affecting angling businesses and businesses supporting anglers. Further, the value of fish taken in the rod fishery is far greater than in the net fishery. Angling confers social and health benefits and should be supported.

Our response

We recognise the social and economic benefits of rod fishing, and work to support and improve the quality and availability of angling opportunities for salmon and sea trout in the North East and Yorkshire.

In our 2012 socio-economic review of angling in Yorkshire and the North East, we reported that direct expenditure from salmon and sea trout anglers in North East England has been estimated at over £5.5 million per year and to support almost 200 jobs. Whilst much of this money is derived from anglers within the region, over 30% of angling activity is from visiting anglers who bring additional income. This in turn supports a wide range of businesses including hotels, bed and breakfast establishments, food outlets and pubs.

We also recognise and value the social, physical and mental health benefits of angling, and the opportunities to socialise, learn new skills and enjoy the natural environment. We are working with our partners, using the 5 Point Approach in order that angling may be supported through the presence of healthy fish stocks in our rivers.

5.5 Lack of restrictions on anglers

The drift net fishery has been closed completely, the beach net fishery closed for salmon and the netting season for sea trout shortened to offer only the least productive months, yet anglers are legally entitled to catch and keep both salmon and sea trout.

Our response

Our management approach has closed salmon net fisheries and shortened the netting season for sea trout. We have also restricted the activities undertaken within a number of rod fisheries.

There has been a mandatory catch and release requirement for spring salmon caught on rod and line to be returned before 16th June since 1999, to better protect this most vulnerable component of the salmon run.

For the remainder of the year, we take the view that protection of salmon stocks is generally best achieved by increasing rates of catch and release voluntarily. Studies show that the survival of rod caught and released salmon can exceed 90% when best practice techniques are used.

We have also introduced mandatory catch and release for the whole season for rod fisheries on a number of rivers in the North East and Yorkshire including the rivers Wansbeck and Bylth in the North East and the River Ouse system in Yorkshire.

We have not closed rod fisheries on any rivers. We prevented the killing of salmon where the stocks are most vulnerable by introducing mandatory catch and release requirements for 'At Risk' rivers from 2019. We have introduce mandatory catch and release in the rod fishery in the North East on the rivers Aln, Blyth and Wansbeck. In Yorkshire we have introduced mandatory catch and release on the recovering River Ouse system.

Voluntary catch and release of salmon has increased on many rivers in recent years and now sees, on average, over 80% of salmon returned alive. We recognise that further regulation could have an impact on angling, so our approach for Probably at Risk stocks from 2019 is that we require 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.

We also encourage and promote voluntary catch and release for sea trout anglers. Exploitation rates in sea trout rod fisheries are generally substantially lower than for salmon rod fisheries, typically at around 5% compared to 20-25% for salmon.

5.6 Catch limits should be introduced for the net fishery

Rather than setting a season length, catch limits should be set such than netsmen could retain sea trout until they reached their allocated catch limit. This would offer more effective protection to sea trout stocks than the current regulation by restricting effort.

Our response

We have carefully considered other approaches, including introducing a catch limit for each licensee. However, we take the view that these approaches would not achieve our conservation objectives, as effectively as our current regulation of fishing effort. In 2015 we provided Defra with a detailed report analysing the benefits and risks associated with catch limits, and concluded the risks outweighed the benefits.

5.7 Salmon stocking programmes should be introduced

To better support salmon populations, stocking programmes should be introduced to artificially support stocks in the rivers of the North East and Yorkshire. This would boost juvenile production and increase the number of returning adults.

Our response

The Environment Agency's position is a general presumption against undertaking salmon stocking.

We take the view that alternative strategies such as stock conservation and habitat enhancement are generally likely to provide more effective, cost-efficient and sustainable solutions and should be fully explored before a hatchery is considered.

A comprehensive body of scientific evidence, both national and international, 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).

NASCO guidance does not prevent stocking and many NASCO member states still undertake stocking on their river catchments where there is a clear, justifiable need. Our policy along with many other member states, is guided by the NASCO Williamsburg Resolution which indicates a need for a precautionary approach with respect to stocking practices to protect the genetic integrity of river specific stocks. Our policy would therefore only endorse mitigation or stock recovery/restoration stocking where that can be fully justified taking account of consideration of other possible management actions to improve stock status. Our policy does not allow enhancement salmon stocking.

Salmon stocking may be considered as an option when adopted as part of a wider catchment restoration plan alongside stock conservation and habitat enhancement measures where there is a clear case for mitigation (for example following the loss of significant spawning habitat and flow regulation due to a reservoir construction) or where the salmon population is at risk of extirpation.

Such schemes are required to be fully funded from external sources and adhere to strict guidelines to minimise risks to wild fish populations and genetic integrity. There is an expectation that other potential limiting factors had been fully considered and for these to have been, or are in the process of being, resolved.

We now only stock the River Tyne with juvenile salmon, having discontinued salmon stocking programmes on other rivers in the North East over 10 years ago. The stocking that we currently carry out on the River Tyne is in mitigation for the construction of Kielder Reservoir, which has impacted on salmon productivity over a long term. This stocking is entirely funded by third parties.

Given the increasing body of scientific evidence regarding the risks of stocking and the lack of evidence relating to the derived benefits, we will not consent any further stocking of salmon into nationally and internationally conservation designated rivers (SACs and SSSIs), where Atlantic salmon are a qualifying interest feature. This reflects the conservation objective of these sites to maintain natural, self-sustaining wild populations wherever possible.

5.8 Pressures in the freshwater environment

Various pressures adversely impact on salmon and sea trout stocks in the fresh water environment including: habitat loss and degradation, low flows and over-abstraction, water quality issues and pollution from diffuse and point sources, including agriculture and sewage.

Our response

We agree that addressing pressures within the freshwater environment including those mentioned above, and in improving fish passage and access to spawning areas for migratory salmonids is an important element to improving salmon and sea trout populations.

We protect and improve habitats, secure sufficient flows and protect water quality through our input to planning and through our permitting processes. We have work closely with, and will continue working with angling clubs, rivers trusts and other partners on all our rivers on habitat improvement projects and fish pass schemes.

We promote effective land use and good farming practices and regulate agricultural activities to ensure freshwater habitats are protected.

These activities form key elements of the Salmon Five Point Approach, which was developed by the Environment Agency, Government and partner fishery organisations in 2015. The Approach's mission is to restore the abundance, diversity and resilience of salmon stocks throughout England.

Measures that we are jointly setting out to benefit salmon will also have significant beneficial environmental outcomes for rivers, natural capital and many other species of fish and other wildlife. In particular, implementation of this approach will also assist in maintaining and developing sea

trout populations, which also make a valuable contribution to the local economy and help to define the health of our river catchments.

5.9 Poor marine survival

Poor and declining marine survival of both salmon and sea trout is a key issue in the performance of these stocks, rather than other factors, including exploitation in the net fishery.

Our response

We believe the biggest single factor impacting the status of salmon populations has been declining marine survival from emigrant smolts to returning adult spawners, which has approximately halved over the last 25 years. This has been largely linked to climate change induced environmental changes which are believed to affect feeding. However, we know that when we address the pressures on salmon in the freshwater and coastal environments we see a clear response with improved smolt production and returning numbers of adult fish.

There have been notable successes with improvements recorded in some salmon populations including the River Ure in Yorkshire and the rivers Tyne and Wear North East, where water quality and physical river habitats have been restored. These successes demonstrate that through careful management and partnership working, salmon stocks can recover when given the opportunity, even in the context of poor sea survival.

5.10 The impact of the existing net fishery on salmon and sea trout stocks

Current levels of exploitation in the beach net fishery exert an unsustainable pressure on sea trout stocks and any further extension of the net fishery would increase this pressure, with negative results.

Our response

To better protect vulnerable fish stocks, the Environment Agency and its predecessors have been reducing the salmon and sea trout net fishery in Yorkshire and the North East since 1992, initially reducing the number of drift nets only, then from 2012 extending the reduction to beach nets.

In 2018, in response to increasing concerns over salmon stocks, we closed the drift net fishery completely. The beach net fishery was also closed for salmon, but allowed to continue fishing for sea trout only, generally over a shortened netting season, and with an extended weekly closed period in Yorkshire. These changes resulted in significantly smaller net catches of sea trout, and a zero net catch of salmon in 2019.

Any extension to the sea trout netting season is dependent on an assessment that contributing sea trout stocks have a surplus available for exploitation, as well as there being a minimal impact on salmon populations.

5.11 Lack of robust data to inform management options

There is a disparity between rates of salmon entanglement in modified nets reported by licensees during the modified net trials and those reported by fisheries observers. The trials only represent a single year, which may not have produced representative results, given the variable nature of catches in the net fishery.

Our response

The 2019 sea trout netting trials provided a substantial amount of new data to better inform our understanding of the operation of modified designs of nets to advise the future management of the net fishery.

We recognise that the data collected from these trials provides an assessment of net performance in a single year only, at a limited number of locations.

Differences in data from licensees' logbooks and fisheries observations are discussed in detail in section 10.1 of the net trial report.

Although there are some differences in the data provided by logbooks and fisheries observations, the total number of salmon recorded by both methods is small, and the results from both methods of assessment are in broad agreement.

Historic net catches confirm the fishery has significant inter-annual variation in catches, and therefore the results from the trial should be interpreted with a degree of caution. However, with this caveat, we take the view that the information provided by the trials provides a good evidence base on which to evaluate the performance of the modified nets, and to inform future net fishery management.

5.12 Poor performance of contributing stocks of salmon and sea trout

The performance of contributing stocks of sea trout, as measured by rod catches and sea trout rod fishery performance assessments is a matter of concern. There is no clear evidence of a harvestable surplus of sea trout that would support an extension to the netting season.

Our response

We are working with partners to address all factors affecting salmon stocks under the Salmon Five Point Approach, including water quality, fish habitat and access improvements, as well as working to better control exploitation.

Our latest stock assessments indicate the majority of the salmon populations in England exposed to the beach net fishery are ‘probably at risk’ emphasising the need to prohibit exploitation of salmon in coastal nets. A number of salmon populations in Scotland contributing to the net fishery are also assessed as requiring management action to reduce exploitation of the stock to zero in 2020.

The latest assessments of sea trout stocks contributing to the coastal net fishery also indicate many of these stocks are also ‘probably at risk’ indicating a precautionary management approach should be adopted. The benefits of extending the sea trout net fishery must therefore be carefully balanced against any increased risks to stocks of salmon and sea trout provided by increased netting opportunities. We recognise that sea trout stocks are supported by smolt production from brown trout as well as migratory sea trout spawning, which helps to increase the resilience of sea trout populations.

Any extension to the sea trout netting season is dependent on an assessment that contributing sea trout stocks have a surplus available for exploitation, as well as there being a minimal impact on salmon populations.

5.13 Impact of by-catch mortality on salmon stocks

The impact of entanglement in modified designs of nets is likely to result in mortalities of salmon, either by unavoidable damage during handling and release, or by deliberate retention by netsmen.

Our response

The trial results show that the modified designs of nets proved successful in intercepting sea trout whilst only entangling a small number of salmon, the great majority of which were returned with minimal damage or delay, and that the impact on salmon stocks was very low.

We concluded there was not likely to be any significant effect, alone or in combination of extending the netting season for sea trout on salmon stocks originating from rivers on the east coast of Scotland where salmon are designated as an interest feature of Special Areas of Conservation (SACs).

Video footage and field observations recorded salmon being returned following entanglement, generally with minimal physical damage. Upscaling these results to the whole fishery would be likely to result in a modest impact on contributing salmon stocks.

5.14 The impact of the 2018 byelaws

The 2018 national fisheries byelaws introduced substantial changes to the regulation of the net fishery, closing the drift net fishery entirely, closing the beach nets for salmon and reducing the beach netting season for sea trout in most districts. There has been no opportunity to assess the impact of these changes, together with other pressures, on salmon and sea trout stocks. No further management interventions should be undertaken before the impact of these recent regulatory changes has been assessed.

Our response

Our first priority is the conservation of salmon and sea trout stocks, but we are mindful of the impact of our regulations on commercial netsmen. We are seeking to achieve the best balance between providing vulnerable stocks with necessary protection and minimising the economic impacts for netsmen by allowing a sea trout net fishery as far as this is sustainable and consistent with providing adequate protection for fish stocks.

One consideration in achieving this balance is minimising the delay in identifying sustainable fishing opportunities for existing netsmen, as far as that is possible. Therefore, we undertook trials of modified designs of beach nets at the first practicable opportunity.

We will continue to monitor the performance of stocks of salmon and sea trout exposed to the net fishery and the impact of the fishery upon those stocks to inform current and future management.

The forecast future performance of salmon stocks is based on a projection of the current trend in egg deposition into the future. This forecast does not take into account any changes to factors affecting the performance of stocks, either natural or as a result of human activities.

We expect changes to regulations controlling levels of exploitation of salmon in rod and net fisheries to change the future performance of salmon stocks. These changes will be measured in our annual assessments.

5.15 The impacts of predation on fish stocks

The impacts of predation in freshwater from otters, cormorants, goosanders and at sea from seals is excessive, increasing and requires urgent action to control.

Our response

Otters are native mammals protected under the Conservation of Habitats and Species Regulations (2010) and the Wildlife and Countryside Act (1981). It is an offence to disturb or kill otters without a licence from Natural England.

Predation is part of a naturally functioning ecosystem: fish are eaten by a range of predators, including otters, fish-eating birds and other fish. The numbers and distribution of these predators are largely determined by prey availability. Otters are opportunistic feeders and show no strong preference for one fish species over another. They will take a range of different fish species in proportion to their local and seasonal availability. Eels are often cited as a favourite food, and where present and abundant they are frequent prey.

Not all river fisheries are adversely affected, particularly in parts of the country where otters have been present for longer, or were never lost. Many factors, not just predation, contribute to fluctuations in fish population in rivers, and in general a healthy river fishery should not be adversely impacted by otter predation.

Cormorant numbers in the UK have increased from 2,000 in the 1980’s to a current estimated over-wintering population of more than 30,000 in England alone. It can be difficult to accurately

assess predation impacts on fisheries, as much of the evidence is anecdotal and has limited scientific basis.

Goosanders are fish eating specialists that will target which ever species are most abundant at the location and prefer small to medium sized species. They will aggregate in large numbers if there is abundant prey and can cause serious problems for salmonid populations in rivers in the north of England and Scotland.

The issue of licences for the lethal control of cormorants and goosanders is regulated by Natural England. Advice on the control of fish eating birds and on the application process can be obtained from the Angling Trust website here.

Two species of seals are found in the North East, grey seals and harbour or common seals. Grey seals are the larger and more numerous of the two species. It has been estimated that there are between 3,000-6,000 grey seals residing around the Farne Islands, the main colony in the North East of England. A smaller population of around 500 grey seals is found around Coquet Island.

The Tees estuary supports a small breeding population of harbour seals which are present throughout the year. Further north there is a small resident population of harbour seals at Holy Island in north Northumberland.

Seal diet is typically predominated by sand eels, together with cod, whiting, haddock, and flatfish. However, seals are commonly observed to consume salmon and sea trout in estuaries, around nets and river mouths. We recognise that salmon and sea trout have been estimated to comprise a substantial proportion of the diet in such areas at certain times.

The impact on salmon populations from predation by seals will vary significantly between years, and in different locations. A study by the MAFF Salmon and Freshwater Fisheries Laboratory (now CEFAS) in 1979 estimated losses of salmon caught in nets to seals in the North East net fishery to be around 5%.

It is not possible to quantify the impact of seal predation on salmon that do not encounter a net. Therefore, considerable uncertainty remains about the level of impact on local salmonid stocks as a result of predation by seals.

Seals in England and Wales are protected under the Conservation of Seals Act 1970, which prohibits taking seals during a close season (01/09 to 31/12 for grey seals and 01/06 to 31/08 for harbour seals) except under a licence issued by the Marine Management Organisation.

Under the provisions of the Act, fishermen may only shoot seals during the annual close season if serious damage is being caused to catches or gear. During the remainder of the year, seals may be shot providing an appropriate, licensed firearm is used.

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.

5.16 Tees Barrage issues

The performance of stocks of salmon and sea trout is adversely affected by the operation of the Tees Barrage, which impedes fish passage and encourages predation by seals.

Our response

There are five routes by which returning salmon and sea trout can ascend the Tees Barrage.

The primary route is over the radial gates at certain states of tide. Other routes that are also used by returning salmon and sea trout are through the navigation lock on the south bank, by using the original fish pass at the barrage on the left bank, through the canoe slalom course, and by using the newer Denil fish pass between the two hydropower turbines.

We are continuing to work closely with our partners at the Canal and Rivers Trust, the Angling Trust and Salmon and Trout Conservation UK to better understand fish behaviour and migration patterns at the Barrage, using fish counters and underwater sonar technology, so that we can further improve fish passage opportunities.

Routes for fish passage at the barrage have been steadily improving, most recently by modifying the operation of the radial gates so that salmon and sea trout have a longer window of opportunity to pass upstream by this route. We will continue to explore ways to make fish passage easier in the future.

We are currently exploring opportunities with partners to further improve fish passage through the navigation lock at the barrage.

5.17 Application of the Precautionary Approach

In determining our management recommendations for the beach net fishery, the NASCO Precautionary Approach should be followed.

Our response

In determining our position, we follow the NASCO guidelines and apply the Precautionary Approach to the conservation and management of salmon populations, thereby giving priority to conserving and protecting salmon stocks.

We follow the Regulators' Code and the statutory principles of good regulation as well as our duty to have regard to economic and social wellbeing.

We give appropriate consideration to the potential impact of our proposed regulations on economic growth, both for individual businesses and more widely, alongside consideration of our statutory duty to maintain, improve and develop fisheries.

We understand that our regulation may place a financial burden on licensees and we seek to maintain a net fishery where to do so would not impact on salmon stocks.

5.18 Impact of recent flood events on salmonid populations

Storm Desmond and other high flow and flood events had a negative impact of fish stocks by disturbing redds and displacing salmon and sea trout ova, which now require additional support.

Our response

Storm Desmond in 2015 and other recent flood events are likely to have had an adverse impact upon recruitment, Juvenile fish densities in 2016 following storm Desmond were much reduced throughout the country and although establishing exact cause and effect can be difficult, the circumstantial evidence would suggest an impact as a result of widespread gravel movements and displacement of fish eggs and stranding of juvenile salmon and sea trout as a result of the high flows and flooding.

This, combined with other pressures in both freshwater and marine environments, is likely to have contributed to the low fish counts of returning three year old adult fish (grilse and one sea winter sea trout) in 2019. The combined impact of all pressures on salmon and sea trout stocks is reflected in our performance assessments, which advise our management recommendations.

However, juvenile salmon and trout densities from 2017 have returned to normal levels, reflecting the resilience of stocks and emphasising the importance of ensuring fish can reach their spawning grounds, and that habitat, water quality and flow is protected, so as many fish as possible can spawn.

5.19 Impact of extended netting on designated sites and species

The potential exists for an adverse impact arising from an extension to the sea trout netting season on designated sites and species (SACs, SPAs. MCZs and SSSI's).

Our response

The potential exists for adverse effect, either directly for example through entanglement in nets or physical damage to the seabed during deployment or indirectly through disturbance to species.

In 2012 and 2019 we undertook Habitats Regulations Assessments which concluded there was no potential for significant adverse impact, either alone or in combination, on designated sites or species.

Since 2012 time the fishery has reduced from 62 licences in 2012 to 42 licences in 2019, and the drift net fishery has been closed. A maximum of 40 licensees will be eligible to participate in the fishery in 2020.

Prior to undertaking the 2019 trial of modified designs of T and J net, we undertook a Habitats Regulations Assessment. This concluded there was no potential for significant adverse impact, either alone or in combination, on any designated sites or species from the trial of modified nets.

We take the view that it is very likely there would be no significant effect, either alone or in combination from any future extension to the sea trout netting season on any other designated sites and species. However, any extension of the current net season would be subject to a further Habitats Regulations Assessment.

5.20 Beach netting near estuaries

Nets located near the mouths of estuaries (Tyne, Coquet and Aln) are the most productive and have the potential to exert the greatest pressure on salmon and sea trout stocks. Their impact is particularly marked during periods of low river flow, when returning adult salmonids are likely to congregate around the estuary mouth, awaiting a freshet to trigger migration. Netting should be prohibited in these areas for the better protection of returning salmon and sea trout stocks.

Our response

Regional Fisheries byelaws allow a limited number of beach nets to fish in Conservation Areas close to the mouths of the rivers Coquet, Aln and Tyne in the North East.

The rights of fishery for salmon and sea trout in these areas are in private ownership (the fishery in the area around the Aln and Coquet estuaries is owned by the Northumberland Estate and the fishery at South Shields near the mouth of the Tyne by the Environment Agency respectively) which may have had some bearing on the original decision to allow beach netting to take place.

Allowing beach netting in these areas reflects the historic approach to regulating the net fishery more widely, which has been to reduce fishing effort over time, but in a way that does not adversely affect those already participating in the fishery. As it is long-standing custom and practise for beach netting to take place in these areas, the custom has been maintained.

As licensees who have permits to fish in these fisheries retire, their permits are not re-allocated to other licensed netsmen. This is analogous to the provisions of the Net Limitation Order, which reduces net licences to use a T net over time as licensees leave the fishery. In this way, fishing effort will reduce over time.

By closing the drift net fishery and the beach net fishery for salmon, with the likely continued reductions in fishing effort over time under the provisions of the 2012 NLO, and with the opportunities for unimpeded migration offered by the daily and weekly closed periods, we take the view that the best balance between protecting stocks from exploitation and allowing licensees to make a living from net fishing is best achieved by continuing to allow net fishing for sea trout in these locations.

The Environment Agency has the power under the Water Resources Act 1991 Section 225 to make emergency byelaws to prohibit fishing in these areas to prevent or limit harm, such as might arise from an extended period of very dry weather and low freshwater flows resulting in excessive exploitation of returning salmon and sea trout.

5.21 The size of the Whitby Conservation Area

In Yorkshire, the extent of the Whitby conservation area allows J nets to be fish relatively close to the Yorkshire Esk. This increases the effectiveness of these nets, adversely affecting sea trout stocks, particularly in the River Esk.

Our response

The size and location of the Whitby conservation area is set under the Yorkshire and North East regional fisheries byelaws 1995. We take the view that the current specification of the conservation area, within which no netting for sea trout may take place, provides appropriate protection for sea trout stocks from the Yorkshire Esk and other populations. The closure of the drift net fishery, shortening of the netting season at Whitby and the prohibition on night fishing for sea trout have served to reduce catch levels, increasing the protection offered to sea trout stocks.

5.22 Beach nets operate as a Mixed Stock Fishery (MSF)

The north east sea trout beach fishery is a mixed stock fishery (MSF) exploiting at-risk populations of sea trout with no demonstrable, sustainable surplus. No coastal MSF netting for sea trout should take place. The Environment Agency made the correct decision in closing the MSF for salmon based on salmon stock assessments.

Insufficient scientifically robust information is available on which to base a decision as to whether an MSF should be operated for sea trout in the north east, when the trial results show at least some individual river stocks will have been significantly impacted by the net fishery, and would be even more so in an extended season.

Our response

We agree that beach nets operate as mixed stock fisheries, in that they exploit salmon and sea trout from a large number of different rivers, and hence separate populations, along the eastern coast of Britain.

This mode of operation introduces difficulties in fisheries management, as it is not possible to effectively protect the most vulnerable of the contributing stocks. This is because it is not possible to determine with high confidence the impact of the fishery on each of the contributing stocks.

The proportion of each exploited population contributing to the net fishery will differ from year to year, and in different parts of the fishery in each year. The variable contribution to the net fishery from each of the individual populations makes an assessment of the impact of the net fishery on individual contributing stocks very difficult.

As a result of these annual variations in catch composition, protecting the weakest of the contributing stocks proves problematic, since the impact of the fishery on the weakest of the contributing stocks cannot be known with confidence.

The UK Government has international obligations to the North Atlantic Salmon Conservation Organisation (NASCO) to close such coastal mixed stock fisheries, as it is not possible to manage them in such a way as to effectively protect contributing salmon stocks. The salmon net fishery was closed in December 2018.

Experimental evidence, as reported in the consultation report section 3.3 and elsewhere, confirms the beach net fishery also operates as a MSF for sea trout, exploiting stocks from a number of different rivers in England and from the River Tweed in Scotland.

Any extension to the sea trout netting season is dependent on an assessment that contributing sea trout stocks have a surplus available for exploitation, as well as there being a minimal impact on salmon populations.

5.23 The 2012 Net Limitation Order (NLO) should be maintained

The provisions of the 2012 NLO should be maintained, so the net fishery will continue to reduce over time as licensees retire or otherwise leave the fishery and their licences are not made available to new entrants.

Our response

The 2012 NLO is effective for ten years, so the provisions of the 2012 NLO remain in place until the end of 2022. The current provisions, whereby licensees who leave the fishery are not replaced by new entrants, and licences cannot be re-allocated or passed on, will remain in effect until this time.

The Environment Agency will review the status of contributing stocks, catches and levels of participation in the net fishery and the impact of the net fishery on those stocks within the prevailing policy and regulatory framework at that time and consult with stakeholders before making a replacement NLO in 2022.

5.24 Night time sea trout netting should be restored in Yorkshire.

Night time netting for sea trout should be restored in Yorkshire, to allow netsmen to take advantage of the more productive night time period.

Our response

We restricted night time netting in Yorkshire under the 2018 national salmon byelaws for a number of reasons. Customarily nets fished at night have been left unattended, but current regulations require close attendance at nets, in order that any salmon encountering a net could be seen, identified, and then promptly released.

Netting at night is not consistent with a requirement to return any salmon entangled in the net with least delay, since it is far more difficult to identify each fish entangled by species in the dark, and less likely that a fish encountering the net will be noticed. This would be likely to lead to an increase in the by-catch mortality of salmon.

A nightly closed period also offers a clear window of opportunity for salmon and sea trout to make their spawning migrations without becoming entangled in nets. This is likely to increase the number of salmon and sea trout returning to rivers to spawn, thereby increasing recruitment and better contributing to healthy and sustainable fish populations.

Therefore, we do not support fishing for sea trout during the hours of darkness.

6. Options appraisal

6.1 Approaches and considerations

The four principal options initially developed for the future management of the beach net fishery are summarised below.

Each option would have some degree of impact on the livelihoods of beach net licensees and on the stocks of salmon and sea trout exposed to the net fishery.

We recognise that factors other than exploitation in net fisheries impact upon salmon stocks, and that marine survival is one of the most important of these factors. We are working with partners to

address all factors affecting salmon stocks under the Salmon Five Point Approach, including water quality, fish habitat and access improvements, as well as working to better control exploitation.

Any recommendation to extend the netting season using modified designs of T and J nets would require amendments to national and regional fisheries byelaws. This would require the publication of relevant evidence, formal advertisement and response to any objections raised, and confirmation of any byelaw changes we might make by the Secretary of State.

We have closely considered the best available scientific evidence on the status of stocks of salmon and sea trout contributing to the net fishery and the impact of the fishery on those stocks.

We are seeking to achieve the best balance between providing vulnerable stocks with much needed added protection, while minimising the economic and social impacts of regulating the beach net fishery for sea trout, allowing a sea trout fishery as far as is sustainable, in line with precautionary principles.

We will give appropriate consideration to the potential impact of any proposed changes to the length of the netting season on economic growth, both for individual businesses and more widely, alongside consideration of our statutory duty to maintain, improve and develop fisheries.

6.1 Options presented in the consultation

The four main and one supplementary option presented as part of the consultation are discussed below, together with two further options recommended in consultation responses by a significant number of those who responded.

Option 1. Maintain the current beach netting season with no extension

This option would not provide any extension to the current netting season using modified nets, maintaining the existing regulation of the fishery under the existing national and regional byelaws.

Maintaining the current regulatory regime would provide the greatest level of protection for salmon and sea trout stocks, since exploitation opportunities would not be increased, but would not provide additional economic benefit for licensees.

This option would be most likely to result in an accelerated reduction in the size of the beach net fishery as licensees retired or moved to alternative economic activities.

Option 2. Extend the beach netting season on a trial basis in 2020

Restoring the netting season to the whole of the beach net fishery as part of an extended trial in 2020 would provide a more comprehensive and robust evidence base on which to evaluate the impact of netting on salmon and sea trout stocks.

Catches of both salmon and sea trout vary within and between years, and at different locations in the beach net fishery. A trial restoration of the netting season in 2020 would provide further catch and effort data from which to evaluate the impact of the net fishery using modified nets on salmon and sea trout stocks.

This would improve the economic benefit licensees derive from the sea trout fishery and increase sea trout catches, without committing to a more permanent extension.

The results from the extended trial would be used, together with other evidence including the performance of contributing stocks, to better inform a decision on whether the netting season should be restored in full or in part, more permanently.

Trial evidence suggests that relatively few salmon would be entangled, and those salmon that became entangled by the net could largely be released with minimal physical injury.

The sea trout catch would be likely to be lower than historical levels, as the modified net designs appear to be less efficient than traditional designs of T and J nets.

If participation in the net fishery in District 1 remained at current levels, and the trial results were replicated across the wider fishery for sea trout, this option might see sea trout catches reduce by around 30% from recent average levels.

The average net catch in District 1 from 2014 to 2018 is around 19.4K sea trout. A reduction of 30% would see this fall to 13.6K sea trout.

In Yorkshire, the more limited nature of trial data makes a numerical estimate of sea trout catch more difficult, but a reduction in sea trout catch would be likely compared to recent historic levels prior to the introduction of the 2018 byelaws, due to the lower efficiency of modified net designs, but higher than the catch in 2019.

Option 3. Partially restoring the beach netting season for sea trout

Netting for sea trout could be partially restored to balance providing necessary protection for salmon and sea trout stocks intercepted by the fishery and enabling licensees to derive economic benefit from netting sea trout.

The length of the netting season could be extended by different periods in different districts of the net fishery, allowing for different netting season lengths, dependent upon the predicted number of salmon and sea trout that would be netted in each district.

The netting season in District 1 could be partially restored by one or two months, to the end of June or July. Such an extension would continue to provide increased protection for salmon and sea trout stocks, but would allow a larger sea trout net catch. Similarly, the season could be extended in District 3 by a month to the end of July.

This option would see an impact on catches intermediate between Option 1 and Options 2 and 4, and provide an intermediate level of economic benefit for licensees.

Option 4. Fully restoring the beach netting season for sea trout

Reverting to the historic netting season end date of 30 August would provide the greatest economic benefit for licensees, by maximising their opportunity to catch sea trout.

This option would provide the lowest level of protection for salmon and sea trout stocks exposed to the beach net fishery.

A complete restoration of the historic netting season for sea trout would increase the netting season by three months in District 1, by two months in district 3 and by a month in Districts 4 and 5. The netting season was not reduced by the 2018 byelaws in Districts 6 and 7, as very few salmon have historically been caught in these southern parts of the beach net fishery.

As for option 2, this option might see the District 1 sea trout catch fall from an average of 19.4K sea trout to around 13.6K sea trout at current levels of participation.

In Yorkshire, a reduction in sea trout catch would be likely compared to recent historic levels prior to the introduction of the 2018 byelaws, but higher than 2019.

Fully restoring the sea trout netting season would increase the numbers of salmon entangled in the beach nets by the greatest extent.

Supplementary option - extending the use of modified designs of nets to the whole of the netting season

Results from the trials of modified T and J nets indicate that both designs, particularly the modified T net, are significantly less efficient at intercepting salmon than the traditional designs of net.

In order to minimise the impact of sea trout netting on salmon stocks, and to reduce the potential injury to salmon which may become entangled in the nets and require release, a requirement to use the modified designs of T and J nets over the whole of the netting season could be introduced.

This would have the advantage of offering increased protection for salmon stocks and to a lesser extent sea trout stocks in the earlier part of the netting season, as the modified designs are less

efficient than traditional net configurations. The difference is particularly pronounced for the modified T net design.

Use of the modified designs of net would be likely to result in lower catches of sea trout and therefore reduce the economic benefit for licensees.

For those licensees who wished to fish only in the earlier part of the season currently stipulated by the 2018 national byelaws, and who did not wish to continue fishing later in any extended season using modified designs of nets, this option would require them to modify their fishing gear without benefiting from an extended fishing season.

6.2 Consultee suggested options

The following two options were suggested as part of the consultation process:

Complete closure of the beach net fishery

This option would provide the greatest level of protection for salmon and sea trout stocks, since exploitation of both salmon and sea trout in the net fishery would be reduced to zero. Complete closure of the net fishery would have the greatest economic impact on licensed netsmen, since they could derive no income from net fishing.

Further restriction of the beach netting season

This option would provide an increased level of protection for salmon and sea trout stocks, since exploitation in the net fishery would be reduced further than the current regulations allow. A reduction in the net fishing season, either as a fixed reduction or an incremental reduction over time, would have a lesser economic impact on licensed netsmen than total closure, but a greater impact than any of the four options presented as part of the consultation.

7. Preferred option

In regulating the fishery, we seek to achieve the best balance between providing vulnerable stocks with much needed added protection, while minimising the economic and social impacts for netsmen. This is achieved by allowing a sea trout net fishery as far as this is sustainable and consistent with providing adequate protection for fish stocks.

The results of the consultation are unequivocal, with a 93% majority opposed to any extension of the current sea trout netting season, and 7% in favour. The most supported option for the future management of the beach net fishery was complete closure of the beach net fishery, followed by further reducing the season length and maintaining the current season length respectively.

The trial results show that the modified designs of nets proved successful in intercepting sea trout whilst only entangling a small number of salmon, the great majority of which were returned with minimal damage or delay, and that the impact on salmon stocks was very low.

The trial also concluded there was not likely to be any significant effect on salmon stocks originating from rivers on the east coast of Scotland where salmon are designated as an interest feature of Special Areas of Conservation (SACs).

The impact of an extended sea trout net fishery on sea trout stocks is less certain. The trial results in the North East show an average reduction in catches of sea trout of around 30% and of around 65% in Yorkshire compared to recent net catches.

Extending the sea trout netting season in the North East and Yorkshire would increase exploitation of sea trout, but given the modified design of nets are less effective at intercepting sea trout than the traditional design, not to the extent of the fishery prior to the introduction of the 2018 byelaws.

An extension to the sea trout netting season is dependent on an assessment that contributing sea trout stocks had a harvestable surplus available for exploitation.

The beach net fishery operates as a Mixed Stock Fishery (MSF) for sea trout, exploiting a number of stocks that are currently assessed as being probably at risk, and with historically low rod catches.

Catches of sea trout, particularly in the District 1 modified T net trial, were high. Extending the netting season to the whole fishery could therefore significantly increase the sea trout catch compared to that which would be landed during the current netting season.

Future levels of participation in the net fishery, and therefore both the economic value of the fishery and the impact of beach netting on stocks of salmon and sea trout, are dependent on a number of factors, and are uncertain.

If licensees take the view that a sea trout only fishery is uneconomical, or that any compensation the Environment Agency may offer is their preferred option, they may choose to accept compensation and leave the fishery, significantly accelerating the reduction in participants. Any future substantial reduction in fishing effort could influence a decision on the most appropriate regulation of the beach net fishery.

We have assessed management options against the latest available evidence describing the performance of contributing stocks of salmon and sea trout, the impact of the net fishery upon those stocks, the results of the modified net trials, the wider regulatory and policy framework and the socio-economic impacts for those participating in the fishery. We have also carefully considered the responses made to this consultation.

Having reviewed the evidence, consultation responses, and considering the uncertainty regarding future net fishery participation, we find it is not appropriate or precautionary to recommend an extension to the sea trout netting season at this time.

The best balance between providing contributing stocks with necessary protection and allowing a fishery as far as that is sustainable is achieved by allowing those netsmen currently operating in the fishery to continue to do so, over the current netting season and continuing to reduce the size of the net fishery over time as existing licensees retire. Therefore Option 1 is recommended.

Whilst an immediate closure of the beach net fishery, or a reduction in the length of the netting season would provide increased protection for sea trout and salmon stocks, our view is that, following the increased protections introduced by the 2018 national byelaws, a further reduction in fishing effort is not necessary at this time.

The option to require beach nets to adopt the modified designs tested during the trials for the existing net fishing season would reduce netting efficiency for sea trout at times when few salmon are likely to be netted, generating a further economic dis-benefit for licensees. Given the low numbers of salmon likely to be intercepted during the existing netting season, we find this option would create an unnecessary burden for licensees for marginal benefit. Therefore, this option is not supported.

We will continue to monitor and review the performance of salmon and sea trout stocks contributing to the beach net fishery in the North east and Yorkshire, and the impact of the net fishery upon those stocks.

Should sea trout populations improve to the extent that there is an identified harvestable surplus available, the potential to extend the net fishing season should be re-assessed, as the trial results indicate that modified nets can selectively exploit sea trout.

8. Recommendations

Having carefully reviewed and considered all relevant evidence, the following recommendations are made:

1. The current sea trout netting season dates in each district in the Yorkshire and North East net fishery should be maintained, as defined by the 2018 national salmon and sea trout protection byelaws.

2. The management of the beach net fishery should be formally reviewed, including the potential to extend or restore the netting season, as part of developing a new Net Limitation Order, on or before December 2022.

Appendix 1. Organisations responding to the consultation

Aln Angling Association
Angling Trust
Bedburn Estate
Bishop Auckland District Angling Club
Caley Fisheries North Shields
Corbridge Riverside Sports Club Ltd
Cullercoats Fishermen's Association
Dart Fisheries and Conservation Association
Dearham Angling Society
Egton Estate
Esk Fishery Association
Farnley Estate
Felling Fly Fishing Club
Fisheries Management Scotland
Forth District Salmon Fishery Board
Frome Piddle and West Dorset Fishery Association
Guisborough Angling Club
Haltwhistle & District Angling Association
Hexham Anglers Association
Huby Angling Club
Institute of Fisheries Management
Kilkeel Angling Club
Lynher River Association
National Federation of Fishermen's Organisations
Natural England
Newbie Beat Annan Fishery
Newbrough & Fourstones Angling Association
North East Inshore Fisheries and Conservation Authority
North Eastern Railways Angling Club
Northern Farmers and Landowners Group
Northumberland Anglers Federation
Northumberland Inshore Fisheries and Conservation Authority
Northumberland Rivers Trust

Northumbria Branch of Salmon and Trout Conservation UK
Northumbrian Anglers Federation
Northumbrian Game Fishing Association
River Tweed Commission
Salmon & Trout Conservation
Scottish Anglers National Association
Sharpley Springs Trout Fishery
South West Rivers Association
Stockton Angling Limited
Taw Fishing Club
Tay District Salmon Fisheries Board
Tees Rivers Trust
The Fly Dressers' Guild
Tyne Rivers Trust
Wear Anglers Association
Wear Rivers Trust
West End Angling Club
Wild Trout Trust
Willington and District Angling Club
Witton-le-Wear Fly Fishers
Wylam Angling Club
Yorkshire Esk Rivers Trust

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