NASCO	**Council** ***Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2020 – UK – Scotland***	**CNL(21)30rev**

Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2020

The Annual Progress Reports allow NASCO to evaluate progress on actions taken by Parties / jurisdictions to implement its internationally agreed Resolutions, Agreements and Guidelines and consequently, the achievement of their objectives and actions taken in accordance with the Convention. The following information should be provided through the Annual Progress Reports:

- any changes to the management regime for salmon and consequent changes to the Implementation Plan;
- actions that have been taken under the Implementation Plan in the previous year;
- significant changes to the status of stocks, and a report on catches; and
- actions taken in accordance with the provisions of the Convention.

In completing this Annual Progress Report please refer to the ***Guidelines for the Preparation and Evaluation of NASCO Implementation Plans and for Reporting on Progress****, CNL(18)49.*

These reports will be reviewed by the Council. Please complete this form and return it to the Secretariat **no later than 1 April 2021**.

Party:	**United Kingdom**
Jurisdiction / Region:	**Scotland**

1: Changes to the Implementation Plan
1.1 Describe any proposed revisions to the Implementation Plan *(Where changes are proposed, the revised Implementation Plans should be submitted to the Secretariat by 1 November).*
The UK – Scotland Implementation Plan is being reviewed in the light of the November 2020 assessment by the Review Group. A final version will be submitted to NASCO by November 2021.
1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.
The Scottish Government Programme for Government 2019/2020 included a commitment to develop a Wild Salmon Strategy. Progress was delayed due to restrictions and changed priorities arising from the Coronavirus pandemic. However, a new Wild Salmon Strategy Advisory Group was convened in late 2020 and has met twice to date (March 2021). The aim is to produce initially, a high level strategy document, followed by a more detailed implementation plan. An exercise is underway to capture and map perceptions of fisheries managers across Scotland of regional variations in relative magnitudes of different pressures on salmon. This assessment is drawing on outputs from the National Electrofishing Programme for Scotland (NEPS) regarding local densities of

juvenile salmon and will be subject a harmonisation process involving national scientists, regulators and academic input.

Salmon Conservation Regulations for 2021 were laid in the Scottish Parliament in December 2020 and come into force on 1 April 2021. First introduced in 2016, we believe this approach strikes the right balance between conservation of the species for future generations and those fishing for salmon today.

Scotland's Farmed Fish Health Framework aims to address new and developing challenges faced by the aquaculture sector with a particular focus on the maintenance of high standards of fish health and welfare. It brings together the fish farming sector, government, regulators and veterinary professionals to work collaboratively to address challenges.

The Scottish Government has made significant changes to its sea lice policy. New legislation, coming into force in March 2021, introduces mandatory sea lice reporting by aquaculture production businesses. This will help the Fish Health Inspectorate to monitor and enforce policy on sea lice management. It requires average weekly female sea lice numbers per fish to be reported to Scottish Government one week in arrears, in place of current arrangements which require reporting only where specific levels are met or exceeded. Data received will be published to promote transparency.

2: Stock status and catches.

2.1 Provide a description of any new factors that may affect the abundance of salmon stocks significantly and, if there has been any significant change in stock status since the development of the Implementation Plan, provide a brief (200 word max) summary of these changes.

The Covid-19 pandemic has undoubtedly had a negative impact on Scottish salmon fisheries during the 2020 season. Stay at home orders during this time along with the restrictions on national and international travel severely disrupted fisheries. Information collected by Marine Scotland on fishing effort clearly shows a decrease in effort during the spring/early summer compared to 2019. This decrease in effort has ultimately led to lower than expected catches and makes comparisons with previous years challenging.

2.2 Provide the following information on catches: *(nominal catch equals reported quantity of salmon caught and retained in tonnes 'round fresh weight' (i.e. weight of whole, ungutted, unfrozen fish) or 'round fresh weight equivalent').*

	In-river	Estuarine	Coastal	Total
(a) provisional nominal catch (which may be subject to revision) for 2020 (tonnes)	11	2.6	0	13.6
(b) confirmed nominal catch of salmon for 2019 (tonnes)	11	1.6	0	12.6
(c) estimated unreported catch for 2020 (tonnes)	1.1	0.26	0	1.36
(d) number and percentage of salmon caught and released in recreational fisheries in 2020	42,348 salmon were caught and released in 2020 (93% of reported rod-caught wild salmon)			

Salmon Fishery Catch Statistics 2020: Salmon fishery statistics: 2020 - gov.scot (www.gov.scot)

3: Implementation Plan Actions.		
3.1 Provide an update on progress on actions relating to the Management of Salmon Fisheries *(section 2.9 of the Implementation Plan).* ***Note:*** *the reports under 'Progress on action to date' should provide a* ***brief overview*** *of each action. For all actions, provide* ***clear and concise*** *quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.*		
Action F1:	Description of action (*as submitted in the IP*):	Continued annual assessment of Scotland's stocks using an adult based assessment method based on rod catches, counter data and biological data from adult salmon.
	Expected outcome (*as submitted in the IP*):	Various aspects of the process are published in peer reviewed journals in advance of the 2022 fishing season, recognising the robustness of Scotland's assessment.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	The status of the stocks in assessable areas is estimated annually and expressed as the average probability that the potential egg deposition exceeded the egg requirement over the previous 5 years. Stocks are allocated to one of three categories; 1 (greater than 80% chance of meeting CL), 2 (between 60% and 80%), and 3 (less than 60%). The conservation status of stocks was assessed using data for the return years 2015 to 2019, and was used to inform management measures for these stocks that will apply for the 2021 season. Of the areas assessed, 36 (21%) were categorised as grade 1; 35 (20%) as grade 2 and the remaining 102 (59%) as grade 3. Weighting these data by the most recent estimated stock size in the areas assessed, 82% of the Scottish salmon stock was associated with grade 1 areas, 12% with grade 2 areas and 7% with areas categorised as grade 3. The Salmon Conservation Regulations for 2021 were laid in the Scottish Parliament in December 2020 and come into force from 1 April 2021. Work on developing and publishing the assessment methods which underpin the Conservation of Salmon (Scotland) Regulations 2016, and subsequent amendments, was heavily impacted by the covid pandemic. Key staff were redeployed to help with Scottish Government's response to the pandemic, delaying progress in this area. Although assessments were undertaken during the year, the timetable for publishing the data has been pushed back. In addition, discussion have been undertaken with colleagues in England and Wales over the potential for undertaking a

		common approach to stock estimation. This will be explored further in the coming year.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action F1 (cont.):	Description of action (*as submitted in the IP*):	Development of a juvenile salmon assessment tool based on a strategically designed programme of electrofishing (National Electrofishing Programme for Scotland: NEPS) delivered through partnership with local fisheries management organisations.
	Expected outcome (*as submitted in the IP*):	An adult based assessment method, based on rod catch, counter and biometric information, combined with a juvenile assessment tool, based on electrofishing data collected at a local level, deliver a greater level of confidence in the status of Scotland's wild Atlantic salmon stocks and a better measure of the potential impact of our measures to mitigate the pressures on the stocks.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	A peer reviewed paper was produced in 2019 that outlined an approach for setting benchmarks for expected (healthy) juvenile salmon densities. In 2018 the National Electrofishing Programme for Scotland (NEPS) was developed using a Generalised Random Tessellation Stratified survey design. The NEPS programme consisting of 810 survey sites was completed in 2018 and 2019 and reported in 2019 and 2020. It was not possible to undertake the survey programme during 2020 due to travel and other constraints associated with the Coronavirus pandemic. The most recent report explored approaches for combining surveys across years and for combining separate surveys within years to obtain regional assessments. Future work during 2021 and 2022 will consider how adult- and juvenile-based assessment methods are best coupled to deliver on national salmon conservation regulations and inform local and regional management decisions.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action F1 (cont.):	Description of action (*as submitted in the IP*):	A small research study conducted over three-years with three main goals: 1) to assess immediate effects of catch-and-release angling on the physiology and behaviour of adult Atlantic salmon; 2) to study, for the first time in the context of catch-and-release angling, transgenerational effects of maternal stress on offspring physiology and behaviour; and 3) potentially to provide new understanding of the impacts of catch-and-release angling for consideration in guidelines for anglers and models underpinning national fishery regulations.
	Expected outcome	This project will provide the first scientific evidence for

	(*as submitted in the IP*):	incorporating lethal and sub-lethal effects of catch-and-release into Marine Scotland Science's (MSS's) estimates of spawning escapement and conservation limits. The information will be important for devising catch-and-release protocols and setting angling seasons if effects of catch-and-release are sensitive to time from spawning. Findings will be disseminated by MSS through FMS, the IFM and the International Council for Exploration of the Seas working groups to NASCO.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	The study is currently being analysed and written up as potentially three manuscripts and a PhD thesis. Results will be available in due course.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action F2:	Description of action (*as submitted in the IP*):	Review of Scotland's inshore marine gill net legislation. Illegal gill netting, very close to the shore, remains a recurrent issue, because the existing regulation allows illegal operators to claim that they are targeting species other than Atlantic salmon and sea trout. Our aspiration is to introduce legislation to prohibit the deployment of gill nets where this could result in a high risk of a salmon and/or sea trout bycatch.
	Expected outcome (*as submitted in the IP*):	Reduced illegal wild Atlantic salmon catches by the end of the five-year NASCO plan period.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	No progress on this issue during 2020 due to other priorities
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a

3.2 Provide an update on progress on actions relating to Habitat Protection and Restoration *(section 3.5 of the Implementation Plan).*
Note: *the reports under 'Progress on action to date' should provide a* ***brief overview*** *of each action. For all actions, provide* ***clear and concise*** *quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be*

evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.		
Action H1:	Description of action (*as submitted in the IP*):	Reductions in point source and diffuse pollution will be achieved through River Basin Management Planning (RBMP) and associated Regulations including "General Binding Rules" (GBRs). Adherence to other guidelines, such as Managing forest operations to protect the water environment, will also contribute to the reduction of diffuse pollution. GBRs include a range of land use requirements to reduce diffuse pollution through measures such as buffer strips to reduce fine sediment and nutrient delivery and encourage the growth of riparian vegetation. In RBMP cycle 1 there were 14 Priority Catchments selected where SEPA (Scottish Environment Protection Agency) worked with farmers to reduced diffuse pollution. In RBMP cycle 2 from 2015 to 2021 all other predominantly agricultural catchments (57 in total) have been selected with audits of all farms to reduce diffuse pollution. Through RBMP the Diffuse Pollution Management Advisory Group (DPMAG) was set up as partnership that focuses on protecting and improving Scotland's water environment by reducing rural diffuse pollution. DPMAG have developed a two tiered strategy approach to reduce diffuse pollution in Scotland: a national campaign to prevent water bodies from deteriorating in status and make improvement where they are not far from a status boundary; and a targeted approach in priority catchments. The Rural Diffuse Pollution Plan for Scotland aims to ensure that the key stakeholders in Scotland work in a co-ordinated way to reduce diffuse pollution from rural sources.
	Expected outcome (*as submitted in the IP*):	RBMPs utilise SEPA classification results to set objectives for improving the water environment over a six year cycle, the current being from 2015 to 2021. The third RBMPs will build on the work completed under RBMP2 up to 2021 to reduce point source and diffuse pollution pressures and will prioritise future targets up to 2027. Once the new online, GIS pressures mapping tool is delivered, our target will be for it to show a reduction, by the end of the five-year NASCO plan period, in the river length affected by acidification; point-source pollution; diffuse pollution; other pollution; changing rainfall patterns; eutrophication; and/or oligotrophication.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	SEPA opened a public consultation on the draft River Basin Management Plans (RBMPs) for the third cycle (2021 to 2027) on 20 December 2020 that closes on 22 June 2021. SEPA monitors water quality to ensure that potentially harmful substances are within safe levels, and that the loss of valuable resources such as soil and nutrients are minimised. Water

		quality is now in good or better condition in 87% of Scotland's water environment. During the third RBMP cycle, SEPA proposes to begin work in the final ten identified priority catchments, where effort is focused to reduce diffuse pollution impacts (building on the 47 where work is ongoing or due to begin by the end of the second RBMP cycle). However, in general the COVID-19 pandemic and a significant cyber attack SEPA experienced in December 2020 have delayed recent on the ground farm visits for diffuse pollution priority catchment work.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H1 (cont.):	Description of action (*as submitted in the IP*):	Explore the benefit and feasibility of nutrient enrichment in upland oligotrophic parts of river systems.
	Expected outcome (*as submitted in the IP*):	Our aspiration is that nutrient enrichment in upland oligotrophic parts of river systems improves the size, condition and therefore marine survival of smolts. Next stages of work are expected to provide knowledge on how to add nutrients effectively on large scale and across a range of river types.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	First year of field experiments was completed to compare effects of nutrient pellets scattered or bagged. Significant effects of nutrient additions on densities of salmon parr from scatter treatment were measured. A review of applications of nutrient additions is near completion.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H2:	Description of action (*as submitted in the IP*):	River Basin Management Plans (RBMP) have identified that the main pressures on flows and levels in Scotland are from water abstractions or reservoirs used for hydroelectricity generation, the irrigation of crops and the manufacture of food and drink along with public water supplies to a lesser extent. This assessment includes consideration of salmon flow requirements. SEPA will work with hydroelectricity producers, farmers and other businesses abstracting water or storing it in reservoirs, to ensure that they take the actions necessary to improve water flows and levels during the current RBMP cycle and beyond. Scottish Water is investing, in the current investment programme 2015-21, to improve abstraction regimes in nine water resource zones to ensure that there is sufficient water remaining in the water bodies during periods of low rainfall. SEPA assesses any new abstraction proposal against standards in the current regulatory framework to prevent deterioration of

		good ecological status/ potential of the water environment and protect wild salmon.
	Expected outcome (*as submitted in the IP*):	River Basin Management Plans (RBMPs) utilise SEPA classification results to set objectives for improving the water environment over a six year cycle, the current RBMP2 being from 2015 to 2021. The third RBMPs will build on the work completed under RBMP2 up to 2021 to reduce abstraction and flow regulation pressures and will prioritise future targets up to 2027. Once the new online, GIS pressures mapping tool has been delivered, our target will be for it to show a reduction, by the end of the five-year NASCO plan period, in the river length affected by abstraction; flow regulation; upland/agriculture land-use and drainage; and/or forestry drainage.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	SEPA opened a public consultation on the draft River Basin Management Plans (RBMP) for the third cycle (2021 to 2027) on 20 December 2020 that closes on 22 June 2021. SEPA monitors water resources (the flows and levels of water) in Scotland's water environment and they are currently assessed as at good or better condition in 87% of surface waters. SEPA will continue to work on reviewing water use licences and requiring improvements where necessary, in particular for irrigation and hydropower, aiming to meet the objectives set for 2021. However, in general the COVID-19 pandemic and a recent cyber-attack SEPA experienced have delayed work.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H3:	Description of action (*as submitted in the IP*):	Implement Scotland's Second Climate Change Adaptation Programme (SCCAP2). This will highlight Scotland's adaptation priorities going forward.
	Expected outcome (*as submitted in the IP*):	Riparian shade to be increased in sensitive and appropriate water bodies, through collaborative projects undertaken by DSFBs and/or Fisheries Trusts.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	Marine Scotland Science has produced peer reviewed management tools to prioritise the location of riparian woodland to mitigate high temperatures under climate change. These tools have been made available to local fisheries managers to help prioritise riparian tree planting and to seek funding through grants such as Nature Scotland's Biodiversity Challenge Fund. Scottish Government encourages the improvement of rivers and burns through riparian tree planting, and has supported over 500 such schemes through the Forestry Grant Scheme between 2018-2020.

		Scottish Forestry and Marine Scotland will be working together as part of the development of the Wild Salmon Strategy and associated Implementation Plan to increase riparian tree planting in order to protect wild salmon.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H4:	Description of action (*as submitted in the IP*):	Prevention of morphological impacts and passive recovery of watercourses will be achieved through the controlled activity regulations (CAR) and associated "General Binding Rules" and adherence to other guidelines such as the forest and water guidelines. GBRs include requirements for buffer strips to reduce fine sediment and nutrient delivery and encourage the growth of riparian vegetation.
	Expected outcome (*as submitted in the IP*):	River Basin Management Plans (RBMPs) utilise SEPA classification results to set objectives for improving the water environment over a six year cycle, the current RBMP2 being from 2015 to 2021. The third RBMPs will build on the work completed under RBMP2 up to 2021 to reduce morphology pressures and will prioritise future targets up to 2027. Once the new online, GIS pressures mapping tool is delivered, our target will be for it to show a reduction, by the end of the five-year NASCO plan period, in the river length affected by sedimentation; loss of sediment transfer; lack of, or excessive, large woody debris; canalisation/dredging/boulder removal.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	SEPA assesses the physical condition of the water environment to understand the extent and impacts of modifications and structures such as embankments, culverts, and the widening and straightening of rivers. The physical condition of Scotland's water environment is now at good or better condition in 90% of the places monitored. New and existing activities (including morphological impacts) in the water environment are authorised by SEPA through the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). This provides for three levels of authorisation: General Binding Rules, Registrations and Licences. SEPA administers registrations and licences under CAR and receives approximately 4000 applications each year. SEPA will continue to protect the water environment from deterioration through the application of these regulations.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H5:	Description of action (*as submitted in the IP*):	The UK Forestry Standard (UKFS) and its supporting Forests and Water Guidelines require that: 'Where new planting or

		restocking is proposed within the catchments of water bodies at risk of acidification, an assessment of the contribution of forestry to acidification and the recovery process should be carried out; details of the assessment procedure should be agreed with the water regulatory authority'. This guidance, agreed by the relevant forestry, water and nature conservation authorities in the UK, describes how to meet this requirement, including the need to undertake a critical load assessment where new planting or restocking is proposed within the catchments of water bodies that are failing or at risk of failing Good Ecological Status due to acidification, and a site impact assessment where felling is planned. The benefits of riparian native woodland will be reinstated on water courses as part of the initiative to moderate river temperatures outlined in H3.
	Expected outcome (*as submitted in the IP*):	Once the new online, GIS pressures mapping tool is delivered, our target will be for it to show a reduction, by the end of the five-year NASCO plan period, in the river length affected by loss of natural riparian vegetation and/or conifer afforestation.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	The Practice Guide: Managing forests in acid sensitive water catchments, agreed by the relevant forestry, water and nature conservation authorities in the UK, describes how to meet this requirement, including the need to undertake a critical load assessment where new planting or restocking is proposed within the catchments of water bodies that are failing or at risk of failing Good Ecological Status due to acidification, and a site impact assessment where felling is planned. Owing to Covid 19, this work has not progressed.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H6:	Description of action (*as submitted in the IP*):	Scotland's River Basin Management Plans (RBMPs), published in 2015, set objectives for the protection and improvement of our water environment, with the aim of 87% of water bodies achieving a classification of 'Good Ecological Status' by 2027. Fish passage is recognised as one of the three main priorities of RBMP2 (2015 – 2021), including the challenges faced by Atlantic salmon smolts in their downstream migration, particularly in relation to hydro schemes. The second RBMPs identified fish migration pressures in 392 water bodies across Scotland. SEPA is leading on work to remove or ease redundant barriers in rivers, utilising *ca.* £5m annual funding from the Scottish Government. Through SEPA regulatory action and the Water Environment Fund more than 1000 kilometres of good-quality salmon habitat has been opened-up by the removal of barriers to fish migration.
	Expected outcome (*as submitted in the IP*):	River Basin Management Plans (RBMPs) utilise SEPA's classification results to set objectives for improving the water environment over a six year cycle, the current RBMP2 being

		from 2015 to 2021. The third RBMPs will build on the work completed under RBMP2 up to 2021 to reduce fish barrier pressures and will prioritise future targets up to 2027. Once the new online, GIS pressures mapping tool is delivered, our target will be for it to show a reduction, by the end of the five-year NASCO plan period, in the river length affected by upstream passage (consider cumulative impacts); downstream passage; dams/weirs/large water bodies; and/or other.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	SEPA opened a public consultation on the draft River Basin Management Plans (RBMPs) for the third cycle (2021 to 2027) on 20 December 2020 that closes on 22 June 2021. Since publication of the second RBMPs 29 barriers to fish migration have been removed or eased. Following investigations and assessments SEPA have discounted 203 barriers that do not need action. However, 152 additional barriers have been identified. When taken together, this now means that 88% of Scotland's waters are at good or better condition for fish migration. SEPA has eight projects at advanced stages of development to remove or ease barriers and will continue to work towards the objectives set for 2021. However, in general the COVID-19 pandemic and the cyber attack SEPA experienced have delayed fish barrier project work.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H7:	Description of action (*as submitted in the IP*):	Continued implementation of monitoring/research strategy for potential marine renewable and salmonid interactions.
	Expected outcome (*as submitted in the IP*):	Improved understanding of the potential impacts of marine renewable energy generation on Atlantic salmon. Continued monitoring of the effectiveness, enforcement and development of appropriate renewable energy industry mitigation for identified effects on salmonids.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	The development of the offshore wind industry continued, with many developments at various stages of planning, consenting, construction and operation, in the Moray Firth, off the Scottish east coast, and in the Solway Firth, and tidal developments operated off the north coast of Scotland and in Shetland. There were detailed assessments for new developments, of whether migrating salmon were likely to be present and whether the proposed development would pose risk to salmon populations during construction and operation, and for developments being constructed or operated, what consenting conditions should be implemented to minimise any potential impacts. Following wide consultation, Scottish Government published the Sectoral Marine Plan for Offshore Wind Energy in October 2020 which identified 15 new areas for development,

		mainly further offshore. The plan aims to minimise any potential for negative impacts on the environment and flags up areas where receptors, including salmon, will need further project level consideration and assessment at the application stage. The 15 areas are being made available for lease by Crown Estate Scotland, in the first Scottish offshore wind leasing round in a decade. The ScotMER (Scottish Marine Energy Research) initiative continued to prioritise research needs, promote appropriate research and coordinate and record progress with filling in knowledge / evidence gaps in relation to marine renewables development. ScotMER is a collaboration between Scottish Government, offshore wind industry, statutory nature conservation bodies and other stakeholders. The main research work planned for 2020 was further studies on the spatial and temporal distribution of emigrating salmon smolts in the Moray Firth and off the Scottish east coast. However, due to Covid-19 this work was not progressed.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H7 (cont.):	Description of action (*as submitted in the IP*):	ATLANTIC SALMON AT SEA - factors affecting their growth and survival (SeaSalar). The Norwegian Institute for Nature Research (NINA) is the lead institution of the program. Marine Scotland is part of the expert consortium.
	Expected outcome (*as submitted in the IP*):	The main aim of the SeaSalar research programme is to examine factors impacting variation in marine survival of Atlantic salmon over time and in different geographical areas.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	Marine Scotland Science has continued to engage with the SeaSalar programme.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H8:	Description of action (*as submitted in the IP*):	Research, review and experimentation to better understand and address, as appropriate, the impact of piscivorous birds on Atlantic salmon.
	Expected outcome (*as submitted in the IP*):	Increase the scientific information available to underpin the management of piscivorous birds.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified*	A project funded by the EMFF has been initiated to track salmon smolts as they migrate along rivers to understand and identify areas of loss. This study will examine the use of acoustic 180khz predation tags and JSATS pin tags for

	evaluation, of progress. Other material (e.g. website links) will not be evaluated):	monitoring the fish. Covid 19 has delayed the work until 2022. However, a pilot study to track goosander response to scaring will be undertaken in 2021.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H8 (cont.):	Description of action (*as submitted in the IP*):	Pilot study to identify the degree of interaction and potential scale of impact of dolphins on returning adult Atlantic salmon in the Moray Firth.
	Expected outcome (*as submitted in the IP*):	Improved understanding of the predation interactions between dolphins and salmon.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	In 2018, a sample of returning adult salmon fitted with temperature sensitive transmitters was released in the Moray Firth, Scotland and monitored by arrays of acoustic receivers. Data collected are being analysed in relation to information on presence of dolphins as part of a PhD project due to conclude in 2020. However, completion of work was delayed due to covid.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action H8 (cont.):	Description of action (*as submitted in the IP*):	The Seals and Salmon Interactions (SSI) work to identify the impact of seal predation on wild Atlantic salmon.
	Expected outcome (*as submitted in the IP*):	Provision of estimates of potential Atlantic salmon removals from the River Dee by seals.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	A draft manuscript which is being prepared for peer reviewed journal submission will be ready for review by Scottish Government in Spring 2020. The paper will describe the ecology of seals in the River Dee with respect to potential impact on salmonid fisheries, and will provide an estimate of salmonid consumption by seals in the observed area of Aberdeen harbour over a twelve month period. However, completion of work was delayed due to covid.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a

3.3 Provide an update on progress on actions relating to Aquaculture, Introductions and Transfers and Transgenics *(section 4.11 of the Implementation Plan).*
***Note**: the reports under 'Progress on action to date' should provide a **brief overview** of each action. For all actions, provide **clear and concise** quantitative information to demonstrate*

progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.		
Action A1:	Description of action (*as submitted in the IP*):	Marine Scotland has reviewed the policy permitting salmon introductions (stocking), and will also revisit options for a new licensing regime under that policy.
	Expected outcome (*as submitted in the IP*):	A licensing regime aiming at improving the conservation status of local wild Atlantic salmon populations.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	Changes to the policy on stocking Atlantic salmon, for those areas where the Scottish Government has direct licensing responsibility, were introduced in spring 2019. Following feedback on the revised policy Marine Scotland planned to assess the impact of the changes and consult widely in a further review during 2020. This work was delayed due to the Coronavirus pandemic. However, early scoping meetings with stakeholders were held in late 2020 and the review will be taken forward during 2021.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action A2:	Description of action (*as submitted in the IP*):	Marine Scotland has initiated a national introgression project in July 2018 that seeks to quantify levels of introgression of genetic material from farm escapees into wild Scottish Atlantic salmon populations.
	Expected outcome (*as submitted in the IP*):	It will measure how much introgression there has been of genomic material of Norwegian origin, completing by the end of March 2021.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	Samples of juvenile salmon were obtained from across Scotland under the NEPS programme (see above). A sub-set of these samples has been screened for introgression and classified according to a panel of recently developed single nucleotide polymorphisnms which provide high levels of differentiation between farmed and wild fish. A report has been prepared on site-wise measures of introgression with an expected release date of early summer 2021. Future work will aim to provide unbiased regional estimates of the levels of genetic introgression in Scotland's wild salmon populations.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action A3:	Description of action (*as submitted in the IP*):	Post-smolt, west coast sweep netting and a continued work programme at the Shieldaig site to provide data to investigate potential links between sea lice, farms and sea trout.
	Expected outcome	Recommendations for a future interactions approach.

	(*as submitted in the IP*):	
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	Work at Shieldaig has continued but was partly disrupted due to Covid 19. Lice counts in the environment and lice data on sea trout continued to be collected although emigrating smolt numbers were not recorded. Data from the Shieldaig operation regarding returning sea trout has been analysed and is in process of write up. Planned work to track salmon and sea trout smolts were put on hold until 2021.
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	N/a
Action A2 & A3:	Description of action (*as submitted in the IP*):	A new Salmon Interactions Workstream will provide advice on existing and potential future arrangements to mitigate the 12 high level pressures on wild salmon. As an initial task, a new, independently chaired Working Group was established in October 2018, to examine and provide advice on the interactions between wild and farmed Atlantic salmon.
	Expected outcome (*as submitted in the IP*):	An approach to managing interactions which enables the protection and enhancement of Scotland's wild Atlantic salmon stocks alongside the sustainable development of aquaculture, maintaining the right balance across our economic, environmental and social responsibilities – in line with Scotland's National Marine Plan.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. Other material (e.g. website links) will not be evaluated):*	The Salmon Interactions Working Group (SIWG) published its report on 1 May 2020, setting out more than 40 recommendations under 5 key themes including the regulation and licensing of fish farms, the collection of data and the commission of further research. In 2021 the Scottish Government will set out next steps, including whether some of the recommendations can be implemented as part of the development of the Wild Salmon Strategy
	Current status of action:	Ongoing
	If 'Completed', has the action achieved its objective?	

4: Additional information required under the Convention
4.1 Details of any laws, regulations and programmes that have been adopted or repealed since the last notification.
The Conservation of Salmon (Scotland) Amendment (No. 2) Regulations 2019 The Conservation of Salmon (Scotland) Amendment Regulations 2020 The Fish Farming Businesses (Reporting) (Scotland) Order 2020

4.2 Details of any new commitments concerning the adoption or maintenance in force for specified periods of time of conservation, restoration and other management measures.
None
4.3 Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.
None identified
4.4 Details of any new actions to invite the attention of States not party to the Convention to matters relating to the activities of its vessels which could adversely affect salmon stocks subject to the Convention.
N/a
4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.
N/a
North American Commission Members only:
4.6 Details of any new measures to minimise bycatches of salmon originating in the rivers of the other member.
N/a
4.7 Details of any alteration to fishing patterns that result in the initiation of fishing or increase in catches of salmon originating in the rivers of another Party except with the consent of the latter.
N/a