NASCO	**Council** ***Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2023 UK – Scotland***	**CNL(24)28**

Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2023

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 2024**.

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).***

None

1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.

The Scottish Wild Salmon Strategy Implementation Plan was published in February 2023 (https://www.gov.scot/publications/wild-salmon-strategy-implementation-plan-2023-2028/). A companion piece to the high-level strategy published in early 2022, the implementation plans sets out a suite of actions and initiatives that will be the focus of collective efforts across a range of government and non-government stakeholders over the 5-year period.

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 start of the 2023 fishing season was characterised by warm temperatures which led the Wild Salmon Strategy Implementation Plan Science Advisory Board to issue guidance on angling in high water temperatures based on the available evidence regarding fish welfare (Breau, 2012; Van Leeuwen et al, 2020). The recommendation was to cease angling activities at temperatures above 20°C (68°F), and to take extra care at temperatures between 18°C - 20°C (64°F - 68°F), following best catch and release practice at all times.

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 2023 (tonnes)	3.44	1.12	0	4.56
(b) confirmed nominal catch of salmon for 2022 (tonnes)	4.29*	1.87*	0	6.16* *updated 2022 catch data published in February 2024 are provisional pending publication of official statistics later in 2024 Scottish salmon and sea trout fisheries: provisional statistics 2023 - gov.scot (www.gov.scot)
(c) estimated unreported catch for 2023 (tonnes)	0.3	0.1	0	0.5
(d) number and percentage of salmon caught and released in recreational fisheries in 2023	31,289 wild origin salmon were caught and released in rod & line recreational fisheries in 2023 (96 % of total rod catch) [provisional data]			

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. Please report in relation to the reporting year only or the most relevant recent year. 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 F1-1:	Description of action (*as submitted in the IP)*	Continued **annual assessment of Scotland's stocks using an adult based assessment method** based on rod catch information and additional ancillary data.
	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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	In advance of the 2022 season the overall aim is to be in a position to assess the combined impacts of five years of the conservation measures being in place, alongside continuing developments in the adult model, which will have been fully and transparently peer-reviewed.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. 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; good (greater than 80% chance of meeting CL), moderate (between 60% and 80%), and poor conservation statis (less than 60%). In 2023 the conservation status of stocks was assessed using data for the return years 2018 to 2022, and was used to inform fisheries management measures for these stocks that will apply for the 2024 fishing season. Of the 173 areas, 32 (18%) were categorised as good; 29 (17%) as moderate and the remaining 112 (65%) as poor conservation status. Weighting these data by the most recent estimated stock size in the areas assessed, 83% of the Scottish salmon stock was associated with areas in good conservation status, 11% with moderate areas and 6% with areas categorised as poor.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F1-2:	Description of action (*as submitted in the IP)*	**Development of a complementary juvenile assessment tool** based on a strategically designed programme of electrofishing (National Electrofishing Programme for Scotland: NEPS) delivered through local fisheries management organisations.
	Expected outcome (*as submitted in the IP*)	An adult based assessment method, based on rod catch information and additional ancillary data, read alongside 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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Juvenile assessments will be used to supplement adult assessments on the status of salmon populations and inform management actions at national and local scales. Data on the status of juvenile fish populations will provide further assurance of the efficacy of conservation measures.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	A new GRTS survey design was completed in 2023. This design was intended to allow a National Electrofishing Programme for Scotland (NEPS) programme to be run for at least nine sampling occasions without the need for further time consuming re-design. The new survey benefited from improved representation of the rivers where sampling could be undertaken (the sample frame) and the addition of strata that allow for improved reporting and regional variation in sample numbers. The new strata included smaller salmon Special Areas of Conservation rivers to allow for greater sample numbers and improved assessments where resources allow. In the summer of 2023, the Scottish Government funded a NEPS sampling programme that included water quality sampling, and genetic sampling of juvenile salmon parr to assess for introgression from farmed fish escapes. Analysis of these data is under way and is expected to report in 2024. The standard juvenile assessment procedures remain consistent with previous years although work is underway to improve site-wise assessments of status by including water quality and local habitat in abundance models. Such developments have the potential to improve our understanding of the impacts of particular pressures at a local scale, but could not replace existing assessment approaches that were designed to provide larger catchment, regional or national assessments.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F1-3:	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 (*as submitted in the IP*)	This project will provide the first scientific evidence for incorporating lethal and sub-lethal effects of catch-and-release into 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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	This project will improve our understanding of the impacts of catch and release on stocks. If impacts are shown to be greater than currently understood then this could inform future decisions on the use of catch and release in rivers that fail to meet their Conservation Limit.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	The research study has completed and published (see APR for 2021) Work is ongoing with partner organisations to update catch and release guidance.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Completed
	If 'Completed', has the action achieved its objective?	Y
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. We will consider introducing new 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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Marine Scotland will work closely with FMS and its members, as well as sea fisheries stakeholders, including but not limited to Inshore Fisheries Groups (IFGs).
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Not progressed during the reporting period.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	

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. Please report in relation to the reporting year only or the most relevant recent year. 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 H1-1:	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 worked with farmers to reduce 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. To date SEPA has visited 5277 farming units in 43 of the 57 Priority catchments. 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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	SEPA has produced an annual RBMP classification for all the water bodies in Scotland since 2007. Classification results for the current and previous years can be found on the Water Classification Hub. In general, the classification of water bodies describes by how much their condition or status differs from near natural conditions and includes a range of biological quality elements supported by measurements of chemistry. The new online, GIS pressures mapping tool should allow us to identify the length and proportion of individual and/or collective rivers impacted by this pressure. SEPA's work to ensure compliance with GBR requirements to reduce diffuse pollution from agriculture is being scaled up, with visits to more catchments to be undertaken.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If*	Work is ongoing in 46 catchments to address diffuse pollution. During 2023 SEPA completed 341 initial farm compliance visits in 6 new priority catchments and 243 revisits to non-compliant farms in other priority catchments.

	sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)	
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H1-2:	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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	We have established and published in peer-reviewed literature that 1) that addition of nutrients to streams in nutrient-poor upland streams increases growth and condition of salmon parr; 2) that longer and better condition smolts have higher marine survival. Next stages of work will establish whether nutrient additions can be applied over large spatial scales to increase numbers of smolts and/ or individual survival through effects on body size and/or condition. Any such action will need to be considered within the wider aims of the RBMP process to ensure appropriate nutrient balance.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	PhD thesis complete: Fionn R Bernthall (2023). Effects of upland stream nutrient restoration on populations of Atlantic salmon. University of Glasgow. 2023BernthalPhD.pdf (gla.ac.uk)
	Current status of action *(Please note: 'Completed' means that the overall*	Completed

	action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')	
	If 'Completed', has the action achieved its objective?	Yes
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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	The Scottish Environment Protection Agency (SEPA) has produced an annual RBMP classification for all the water bodies in Scotland since 2007. Classification results for the current and previous years can be found on the Water Classification Hub. In general, the classification of water bodies describes by how much their condition or status differs from near natural conditions and includes supporting hydrology (changes to water levels and water flows) elements.

		The effectiveness of changing flow regimes will be assessed through regular WFD monitoring. Where fish are the target of the altered flow regime, they will form part of the assessment process. Regular inspections by SEPA staff will be used to assess compliance with licenses and license reviews will be carried out as necessary. MSS has undertaken significant research to improve understanding of the effects of flow regime on Atlantic salmon. These studies reveal the limitation of historical approaches such as Physical Habitat Simulation System (PHABSIM) for decision making and have the potential to improve understanding of the relationships between discharge and Atlantic salmon in managed systems and inform scientifically defensible adjustments to flow regime in the future.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	SEPA continued to deliver the objectives set out in the third river basin management plans and work with land owners and operators to identify mitigation and improvement actions for water bodies impacted by changes to water levels and flows. This includes improving our understanding of the impacts of reduced flows. This work is on-going. In 2023, priorities were agreed and a timeline developed with operators to ensure the measures to improve flows and levels impacted by hydropower are delivered by 2027. SEPA, working closely with partners, managed a significant water scarcity event across several catchments during the summer of 2023.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
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.

	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	MSS has established the Scotland River Temperature Monitoring Network (SRTMN), in collaboration with FMS members and University of Birmingham[1]. This project has produced models to map rivers' reaches that are most vulnerable to temperature change. This project will continue to monitor river temperature and improve tools for management decision making, focussed on riparian tree planting. These tools will be made available online through the National Marine Plan Interactive (NMPi) website and other appropriate online resources. Future work aims to (1) Model mean daily temperature to better understand relationships between river temperature and salmonids in the natural environment; (2) incorporate river temperature into the national juvenile Atlantic salmon density model to identify critical thresholds for production; and (3) undertake climate change projections for Scottish rivers. The new online, GIS pressures mapping tool should allow us to identify the length and proportion of individual and/or collective rivers impacted by loss of shading; over-shading; changing temperature patterns; thermal discharge; hydro modification; and / or other.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Using tools developed through Scotland's River Temperature Monitoring Network, Scottish Forestry (the Scottish Government agency responsible for forestry policy, support and regulation) identified 175,000 hectares of riparian land for woodland planting that is now eligible for an increased grant rate under the Forestry Grant Scheme, which will deliver multiple benefits, including reducing river temperatures for the benefit of Atlantic salmon. Scottish Forestry - Boosting tree planting around rivers and streams
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
	Description of action (*as submitted in the IP)*	Prevention of morphological impacts and passive recovery of watercourses will be achieved through the controlled activity

[1] https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Monitoring/temperature

Action H4:		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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	The Scottish Environment Protection Agency (SEPA) has produced an annual RBMP classification for all the water bodies in Scotland since 2007. Classification results for the current and previous years can be found on the Water Classification Hub. In general, the classification of water bodies describes by how much their condition or status differs from near natural conditions and includes supporting morphology elements. The new online, GIS pressures mapping tool should allow us to identify the length and proportion of individual and/or collective rivers impacted by this pressure. A range of new indicators is also being developed by SEPA to improve assessment of fine sediment and morphological impacts.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. 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 waters. Action to tackle modifications to the physical condition of rivers and lochs through the third River Basin Management Plans aim to see improvements to 92% at good or better condition for physical condition by 2027 and 97% in the long-term through natural recovery.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing

	If 'Completed', has the action achieved its objective?	
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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Guidance, agreed by the relevant forestry, water and nature conservation authorities in the UK, describes how to meet the requirement described above, 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. We acknowledge that it is important to ensure that any impacts on fish, including wild salmon, are picked up by the current processes in order that management action can be prioritised. In some cases, particularly in SW Scotland, local monitoring suggests impacts on juvenile fish.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	After a comprehensive review process the 5th edition of the UK Forestry Standard was published in Oct 2023 with specific requirements and guidelines for the protection of the water environment, including salmonids. Forest Research - Great Britain's principal organisation for forestry and tree-related research - is currently working on a new "UK Forestry Standard Practice Guide: Creating and managing riparian woodlands". This guidance will assist in the planning and design of future riparian woodlands.
	Current status of action *(Please note: 'Completed' means that the overall*	Ongoing

	action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as '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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	The Scottish Environment Protection Agency (SEPA) has produced an annual RBMP classification for all the water bodies in Scotland since 2007. Classification results for the current and previous years can be found on the Water Classification Hub. In general, the classification of water bodies describes by how much their condition or status differs from near natural conditions and includes range of biological quality elements, supported by measurements of morphology. Scientists from MSS, University of Aberdeen and the James Hutton Institute have authored a scientific paper, published in the journal Science of the Total Environment[2] in 2019, that identifies the impacts of barriers (e.g. dams, weirs and other in river

[2] https://www.sciencedirect.com/science/article/pii/S0048969718346199

		structures) on river connectivity for Atlantic salmon. This information forms a valuable resource to inform and prioritise river restoration efforts and financial investment and provides a substantial methodological improvement on previous assessments that estimate the value of habitat from river length or area. Scotland's third River Basin Management Plan will be finalised by December 2021. MSS' research will be considered during SEPA's barrier prioritisation in the updated plan. Where complete barrier removal is carried out, the expected improvements are self-evident and no monitoring is currently proposed. Stakeholder feedback from our consultation of the draft plan has challenged whether there is a need to monitor to assess the length of time taken for Atlantic salmon to recolonise newly available habitats and to assess whether riverine processes (including the transport of bed material) has occurred and are actually being used. Where barrier easement or improvements to fish pass passage are carried out, appropriate site specific monitoring is required to indicate achievement of Good Ecological Status / Potential under WFD or local fisheries management objectives.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In 2023: - 39 active barriers (impoundments, weirs or dams that are being operated/maintained) were scoped by SEPA. 12 were screened out as requiring no action and 27 passed on to the design and licencing stage. Works to ease fish passage on 2 active barriers were completed. - 38 historic barriers (impoundments, weirs or dams that are not being operated/maintained) were scoped by SEPA. 14 were screened out as requiring no action and 24 passed on to the design and licencing stage. Works to ease fish passage on 3 historic barriers were completed. - 28 asset barriers (culverts or bridge aprons) were scoped by SEPA. 10 were screened out as requiring no action and 18 passed on to the design and licencing stage. Works to ease fish passage on 3 asset barriers were completed.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing

	If 'Completed', has the action achieved its objective?	
Action H7:	Description of action (*as submitted in the IP)*	Carry out detailed assessments required for the regulation of existing marine renewable developments, new developments and proposed new developments on whether migrating salmon are likely to be present and whether the development will pose risk to salmon populations during construction and operation, and whether mitigation should be implemented to minimise any potential impacts. The existing developments are mainly off the east coast of Scotland and in the Moray Firth. In the five-year NASCO plan period (2019-2024), the work will concentrate on investigations on the spatial and temporal distribution of emigrating salmon smolts in, and in the vicinity of, existing and proposed development areas. The work will be carried out under the ScotMER (Scottish Marine Energy Research) initiative which prioritises research needs, promotes appropriate research and coordinates and records progress with filling in knowledge / evidence gaps for salmon and other receptors in relation to marine renewables development.
	Expected outcome (*as submitted in the IP*)	Improved understanding of the potential impacts of marine renewable energy installations (during construction and operation) on Atlantic salmon. Improved assessment of the risks marine renewables developments pose to salmon populations during construction and operation, and whether mitigation should be implemented.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	The outputs of these research projects will be improved knowledge of the density of Atlantic salmon smolts in the vicinity of marine renewables development sites and what rivers they are associated with. This information will be considered in the context of known stressors, such as the clearance by detonation of unexploded ordnance at construction sites, and potential stressors, such as possible increased predation resulting from the structures providing shelter and feeding opportunities to predators. The outputs will be used to reduce any risk the construction and operation of marine renewable developments pose to salmon populations.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	During 2023, Scottish Government continued to assess marine renewable developments at all stages in relation to migrating salmon and sea trout presence and potential risk to these salmonid populations, based on the information currently available. Research projects identified under the diadromous fish receptor evidence map of the Scottish Marine Energy Research (ScotMER) programme are ongoing. Data are continuing to be collected and analysed from the project looking into the movement of salmon through two existing wind farms and proposed areas of development in the Moray Firth. This is an add-on project to the PrePARED project, investigating how

		seabirds, marine mammals and fish respond to offshore windfarms. Similarly, data are continuing to be collected and analysed from the north-west coast of Scotland investigating the movement of salmon in adjacent wind farm development areas. This is an add on project to the West Coast Tracking project (see also A3iii). A literature review of the current knowledge on diadromous fish in the context of offshore wind and future research is in the final stages of completion. Three new projects started in 2023. - the development of biochemical tools to assign salmon, captured in the seas off the east coast of Scotland, to their catchment of origin. - examining the diet of salmon post smolts during the initial marine migration on the east coast of Scotland. - translocation project involving the release of acoustically tagged sea trout into an existing wind farm area and an area without any wind farm activity to compare the behaviour of the fish. A paper is currently being prepared on the results from trawling surveys on the east coast of Scotland investigating the distribution of salmon and sea trout post-smolts during the initial marine migration.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H8-1:	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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Results of the research will inform the approach to managing piscivorous birds.
	Progress on action to date	No new research was initiated in 2023. A final report on a European Maritime & Fisheries Fund funded study into the use

	(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)	of acoustic tags to identify areas of river where smolt predation occurs is in the process of being written up.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action H8-2:	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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	A joint research project between MS, the Ness DSFB and Aberdeen University commenced on 9 July and successfully acoustically tagged 109 adult grilse.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Results of the research have been incorporated into PhD report of investigations into the behaviours of dolphins in the Moray Firth. No further activity is expected under this action.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is*	Completed

	reported on annually, it should be marked as 'Ongoing')	
	If 'Completed', has the action achieved its objective?	Yes
Action H8-3:	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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	MS will progress the purchase of suitable surface cameras, in order for SMRU to trial their ability to record seal movements both upstream and downstream in the River Dee.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	During 2023 research has focused on a method to prevent or limit seals swimming up rivers through the development of a detect and deter system as a non-lethal measure for the management of seal depredation in rivers. Initial testing in a river of this acoustic approach generated a strong response in seals exposed to the stimuli with 100% efficacy. All seals (n=16) attempting to swim upriver during exposure trials were returned downriver and did not pass upriver despite seven attempts by one persistent individual. The rate at which known seals tried to pass upriver rapidly dropped off with time suggesting that seals quickly learnt not to approach the site of previous treatments.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	

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. Please report in relation to the reporting year only or the most relevant recent year. 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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Marine Scotland, the licensing authority, considers each stocking application on its individual merits, fully evaluating the risks and benefits as advised in NASCO's Guidelines for incorporating social and economic factors in decisions under the Precautionary Approach. A record is kept of all applications and decisions ensuring that they are in line with the current stocking policy.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Work to develop a revised stocking policy continued in 2023. This has included consideration of the evidence on stocking by the Science Advisory Board of Scotland's Wild Salmon Strategy with regard to the scope for intervention where salmon populations are at risk of extinction.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A2:	Description of action (*as submitted in the IP)*	In support of Article 11 of CNL(06)48 Marine Scotland initiated a national introgression project in July 2018 to investigate the extent of hybridisation and quantify levels of introgression of genetic material from farm escapees into wild Scottish Atlantic salmon populations. This project provides key data to support the minimisation of adverse genetic interactions by identifying impacted areas.
	Expected outcome (*as submitted in the IP*)	In October 2021, Marine Scotland Science published the first national assessment of genetic introgression in Scotland. The study shows that there is a risk to wild salmon from introgression of genes from farmed salmon that escape, but that it may be low outside the aquaculture regions even though escaped fish may disperse widely at sea. The study is a snap shot

		in time and the findings are in line with observations from similar studies in Norway. We have given a commitment to continue to invest in the National Electrofishing Programme for Scotland (NEPS), which provides detailed local information on juvenile salmon stocks in the aquaculture regions and elsewhere within a robust structured framework and underpins continuation of the National Introgression Programme for Scotland.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	The national introgression project utilised a panel of genetic markers to screen juvenile fish tissue samples collected from sites around Scotland in structured surveys and is expected to continue over three years, completing by end of March 2021. Levels of introgression are quantified and examined in relation to the presence / absence and concentration of aquaculture production in the different rivers and regions sampled. The technique basically takes two groups of fish and from these creates two sets of reference data, one to represent farmed fish and one to represent wild. Individual fish can then be examined in relation to these two reference sets of fish and characterisation made as to where the individual fish falls along the spectrum of genetic difference between the two groups. This work has focused on distinguishing between wild Scottish salmon and farmed fish of Norwegian origin stock.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In support of Article 11 of CNL(06)48 the Scottish Government initiated the third survey year under the National Introgression Programme in July 2023 to quantify the levels of introgression of genetic material from farm escapees into wild Scottish Atlantic salmon populations. This project provides key data to support the minimisation of adverse genetic interactions by identifying impacted areas. The results from this survey will be integrated with previous years and are expected in late 2024.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A3(i):	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 (*as submitted in the IP*)	Improved knowledge of sea lice dispersion, impacts on wild salmonids and migratory behaviours of salmonids in complex sea loch environments. These data will be used to inform the proposed sea lice framework as part of an adaptive management process.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Standard programme management approaches are in place to ensure effectiveness and scientific rigour.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Sweep netting took place during the 2023 smolt run, with results published on Fisheries Management Scotland's website. Publications and Data – Fisheries Management Scotland (fms.scot) Following 2023 sweep netting and other monitoring that examines the impact of farmed fish on wild fish, findings will be integrated into the Scottish Environment Protection Agency (SEPA)'s sea lice risk assessment framework, to monitor its effectiveness. Work to develop this framework and its monitoring element are ongoing. As an adaptive framework the monitoring regimes are expected to change in response to continual improvements to the science base.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A2 &A3(ii):	Description of action (*as submitted in the IP)*	The Salmon Interactions Workstream has provided 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. This process is a critical step in working towards the achievement of NASCO's goals on containment and sea lice.
	Expected outcome (*as submitted in the IP*)	An approach to managing interactions which meets international commitments and 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.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Standard programme management approaches are in place to ensure effectiveness and reporting of progress (e.g. The Scottish Government response to the Salmon Interactions Working Group Report was published in October 2021: Salmon Interactions Working Group Report: Scottish Government Response - gov.scot (www.gov.scot))
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Sea lice: The Scottish Environment Protection Agency (SEPA) is the lead regulator responsible for managing the risk to wild fish from sea lice from fish farms in Scotland. SEPA continued to develop a sea lice risk assessment framework – a model that will screen fish farm applications for the risk that the farm poses to increasing the lice load of its wild salmon protection zone (narrow or constrained bodies of water that wild salmonids pass through). The framework will see advice and regulation for the interactions of sea lice being led by SEPA within an adaptive management framework. SEPA is considering as part of this new framework the conditions which will apply to new and existing farms where greater evidence of risk is available. In December 2023 SEPA published a response to their consultation on detailed proposals for the framework, following an initial consultation on high-level proposals in 2021/2022. The new framework will be introduced in phases from February 2024. Scientists from the Scottish Government's Marine Directorate authored "Modelling parasite impacts of aquaculture on wild fish: The case of the salmon louse (Lepeophtheirus salmonis) on out-migrating wild Atlantic salmon (Salmo salar) smolt" in the journal Preventive Veterinary Medicine to support modelling development as part of the sea lice risk assessment framework. The Scottish Government published the Final Project Report of "Salmon Parasite Interactions in Linnhe, Lorn and Shuna (SPILLS)" to build understanding of optimal models, model validation and ensemble modelling, also to support the sea lice risk assessment framework. Scottish Government scientists initiated work with the University of Strathclyde, Mowi, Scottish Sea Farms, BakkaFrost, SEPA, the Institute of Marine Research (Norway) and Fiskaaling (Faeroes) to develop an internationally recognised test bench for sea lice dispersal models (project titled "Sustainable Aquaculture Validation of Ecoparsite Dispersal Models" - SAVED), which will report in July 2024.

		Scientists from the Scottish Government began working with SEPA, the Institute of Marine Research and Fiskaaling to review and report on the best ways to deal with uncertainty in sea lice dispersal modelling. They are also is developing best practice for the presentation of uncertainty in model results to support policy development and decision making through a Technical Working Group that first met in September 2023; MD SEDD is working specifically with SEPA within the context of this Working Group to develop an Evidence Map to support the SEPA sea lice risk assessment framework. The Technical Working Group will report in September 2024. Containment: The Scottish Government's Programme for Government for the period 2023-24 committed to deliver a revised Technical Standard for Scottish Finfish Aquaculture to address farmed fish escapes.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A3 (iii):	Description of action (*as submitted in the IP)*	Develop and implement field studies and migration models to better understand migration behaviours and potential interactions between salmonids and aquaculture developments.
	Expected outcome (*as submitted in the IP*)	Improved understanding of salmon migration behaviours and the potential for interactions between migration of smolts and aquaculture installations. Data will inform the smolt swimming model, which will be used to support the implementation of a new spatially adaptive sea lice risk assessment framework to minimise risk to wild salmon.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Standard project management approaches are in place to ensure effectiveness and scientific rigour.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If*	The third year of data collection of the West Coast Tracking Project (a partnership between Atlantic Salmon Trust, Fisheries Management Scotland and Marine Directorate) tracking smolts through sea lochs, took place in 2023. The ScotMER programme funded the deployment of additional acoustic receivers to further understand the marine

	sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)	migration patterns of salmon post-smolts. The data collected across the multi-year projects are now being collated and analysed.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	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 Regulations 2023 establishes the inland waters where the retention of any salmon caught is prohibited.

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.

4.3 Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.

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.

4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.

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.

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.