	<b>Council</b>  <i>Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2023 UK – Northern Ireland</i>	<b>CNL(24)27</b>
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***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.**

<b>Party:</b>	<b>United Kingdom</b>
<b>Jurisdiction / Region:</b>	<b>Northern Ireland</b>

<b>1: Changes to the Implementation Plan</b>	
<b>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).</b>	N/A
<b>1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.</b>	N/A

<b>2: Stock status and catches.</b>	
<b>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.</b>	The salmon returns to Northern Ireland in 2023 were amongst the lowest recorded in modern times. The return of 1SW salmon was particularly poor and underpinned the low returns. The marine survival estimate

for 1SW salmon on the River Bush stock (2.1%) was the lowest recorded since the time-series began in 1986.				
<b>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').</b>				
(a) provisional nominal catch (which may be subject to revision) for 2023 (tonnes)	In-river	Estuarine	Coastal	Total
	0.8	0	0	0.8
(b) confirmed nominal catch of salmon for 2022 (tonnes)	0.8	0	0	0.8
(c) estimated unreported catch for 2023 (tonnes)	0.1	0	0	0.1
(d) number and percentage of salmon caught and released in recreational fisheries in 2023	DAERA area 591 salmon C&R (96% C&R) Loughs Agency area 2420 salmon C&R (82% C&R)			

### 3: Implementation Plan Actions.

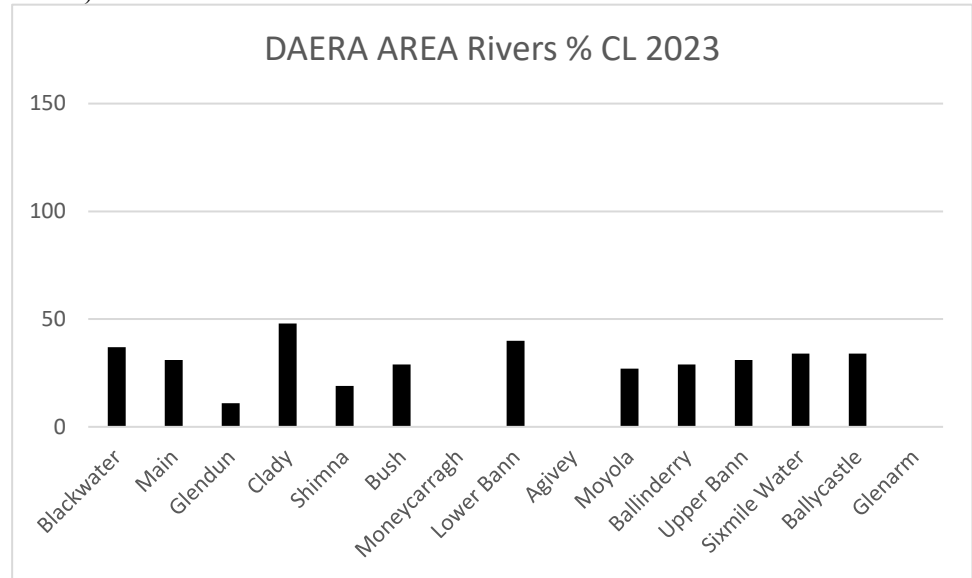
**3.1 Provide an update on progress on actions relating to the Management of Salmon Fisheries (section 2.9 of the Implementation Plan).**  
*Note: the reports under 'Progress on action to date' should provide a brief overview of each action. Please report in relation to the reporting year only or the 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.*

<b>Action F1:</b>	Description of action (as submitted in the IP)	The target is to manage the 18 primary rivers affected by both commercial and recreational fisheries to exceed their CLs.
	Expected outcome (as submitted in the IP)	More primary salmon rivers increasing their adult returns and exceeding their CLs.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Primary salmon rivers are assessed for compliance against CLs annually and this will be reported in the APR. Legislation used to maintain rivers as catch and release only fisheries unless individual river MTs are met on a consistent basis to allow harvest options.

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)*

DAERA Area Management - During 2023, in accordance with scientific advice, 3 DAERA area rivers were allocated a harvestable surplus. Two of these rivers were issued carcass tags (Melvin, Clady) and the fishery owner on the third river (Agivey) did not take their tags and voluntarily operated C&R. A further 11 rivers had no harvest option and were restricted to C&R angling - one river (Glenarm) was changed from harvest to C&R in 2023 in accordance with scientific advice.

All DAERA area primary rivers were successfully assessed for compliance against CL in 2023, with all catchments assessed to be under CL (see graph below).



During 2023 all 4 Loughs Agency primary rivers were assessed for compliance against CL. The Finn failed to meet CL for the 17th consecutive year. The Finn was catch and release in 2023 and will remain catch and release in 2024. The Roe and the Faughan both exceeded CL. The Mourne assessment of attainment of CL is under review. The management decision was taken to grant 3 carcass tags per licence in 2024 for the Rivers Roe, Faughan and Mourne (same management decision as 2023).

		<p style="text-align: center;"><b>Loughs Agency Rivers % CL 2023</b></p> <table border="1"> <caption>Loughs Agency Rivers % CL 2023</caption> <thead> <tr> <th>River</th> <th>% CL</th> </tr> </thead> <tbody> <tr> <td>Finn</td> <td>~40</td> </tr> <tr> <td>Mournne</td> <td>0</td> </tr> <tr> <td>Roe</td> <td>~155</td> </tr> <tr> <td>Faughan</td> <td>~225</td> </tr> </tbody> </table>	River	% CL	Finn	~40	Mournne	0	Roe	~155	Faughan	~225
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	<p>If 'Completed', has the action achieved its objective?</p>											
<p><b>Action F2:</b></p>	<p>Description of action <i>(as submitted in the IP)</i></p>	<p>Update Conservation limits and Management targets for 3 primary salmon rivers in Northern Ireland using refreshed habitat data.</p>										
	<p>Expected outcome</p>	<p>To update CLs for the 3 rivers identified in Section 1.5.</p>										

	<i>(as submitted in the IP)</i>	
	<p>Approach for monitoring effectiveness &amp; enforcement</p> <p><i>(as submitted in the IP)</i></p>	<p>To review CLs once new habitat data is available and to report rivers which have had their CLs updated in the APR report.</p>
	<p>Progress on action to date</p> <p><i>(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)</i></p>	<p>During this IP reporting period 4 DAERA area rivers have had CL's reviewed using new stock &amp; recruitment datasets (Main, U Bann, Blackwater &amp; Sixmile). In addition physical habitat surveys are currently being refreshed on the Glendun river.</p> <p>Loughs Agency will be undertaking physical surveys to assess the efficiency of the Mourne fish counter in 2024.</p>
	<p>Current status of action</p> <p><i>(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is</i></p>	<p>Ongoing</p>

	<i>an ongoing action that is reported on annually, it should be marked as 'Ongoing'</i>	
	If 'Completed', has the action achieved its objective?	
<b>Action F3:</b>	Description of action <i>(as submitted in the IP)</i>	Maintain the Long Term Monitoring of Wild Salmon Stock on the R Bush - used as an Index River for NI.
	Expected outcome <i>(as submitted in the IP)</i>	Maintain and build the long term dataset of adult returns, smolt migration, stock recruitment data, freshwater survival, marine survival, biological characteristics of the R Bush stock over the 5 year period.
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	Full time adult trap in place and smolt trap for smolt run period, an annual programme of juvenile fry surveys of the main spawning areas and an annual assessment of both freshwater and marine survival for R Bush stocks. Data collected provided to the public once completed. This will also be reported as part of the NASCO APR process.
	Progress on action to date <i>(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</i>	All the long-term monitoring datasets were completed and updated for 2023. The smolt run on the River Bush was enumerated at 15,404 fish in 2023. This was dominated by 2+ smolts which accounted for >85 % of the total run. The total adult return of wild salmon to the Bush river in 2023 was 496 with c. 88% classed as 1 Seawinter grilse. The marine survival for the 2022 smolt cohort (1 Seawinter returns in 2023) was 2.1% and represented the lowest ever recorded in the current time series. The average weight of 1SW salmon returning to the river Bush was 1.82kg in 2023.

	<p><i>made clear. Other material (e.g. website links) will not be evaluated)</i></p>	
	<p>Current status of action <i>(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')</i></p>	Ongoing
	<p>If 'Completed', has the action achieved its objective?</p>	
<b>Action F4:</b>	<p>Description of action <i>(as submitted in the IP)</i></p>	To assess mortality of wild salmon smolts moving from the freshwater to the marine environment.
	<p>Expected outcome <i>(as submitted in the IP)</i></p>	To assess riverine mortality and identify possible areas of losses.
	<p>Approach for monitoring effectiveness &amp; enforcement <i>(as submitted in the IP)</i></p>	Acoustic and radio telemetry studies of smolts actively monitored in freshwater and into the marine environment using automatic listening stations. Reports completed on each study carried out and this will be reported as part of the NASCO APR process.

<p>Progress on action to date <i>(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)</i></p>	<p>A batch of 100 river Bush salmon smolts were tagged with acoustic tags to assess mortality of wild salmon smolts moving from the freshwater to the marine environment. Riverine mortality estimates were relatively low in spring 2023 with 14% of tagged smolts lost in the Lower river Bush during downstream migration. The in-river loss rates were relatively low in 2023 (c. 3.8%/km) and were similar to the levels recorded in the previous season. These data contribute to a developing time-series for the River Bush and are currently being included for publication in a peer-review journal paper.</p>
<p>Current status of action <i>(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')</i></p>	<p>Ongoing</p>
<p>If 'Completed', has the action</p>	<p></p>



	achieved its objective?	
<b>Action F5:</b>	Description of action <i>(as submitted in the IP)</i>	To improve recreational catch returns and statistics from the current baseline of 5 - 10% to 30%.
	Expected outcome <i>(as submitted in the IP)</i>	To increase catch returns / data for recreational caught salmon.
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	Monitoring use of digital licensing system and any trends in the number of catch returns completed by recreational anglers. To encourage anglers to report catches by issuing reminder notices to angling clubs and fishery owners. To obtain catch data from fishery owners and angling clubs for catchments. Data on catch returns to be reported as part of the APR.
	Progress on action to date <i>(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)</i>	<p>Catch returns from anglers for the DAERA area have remained close to zero and this trend continues despite regular reminders to anglers of the value of this information. A game licence also permits fishing for stocked game fisheries (including trout and rainbow trout) as well as wild fish with many anglers preferring to fish only stocked game fisheries. There is a concern that the number of salmon anglers as well as increasing in age profile may also be decreasing though there is no data to support this. The current method for reporting is currently not linked to the licence records which makes reporting cumbersome. It is planned to review both the reporting process and the legal requirements around reporting salmon catches as soon as resources allow. Angling catch returns are currently predominantly obtained directly from fishery owners as they often retain a good record for their own purposes and DAERA has a high confidence in both this data alongside the reported nominal catch data provided earlier.</p> <p>In the LA area angler catch return reports are estimated at around 30%</p>
Current status of action	Ongoing	

	<i>(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')</i>	
	If 'Completed', has the action achieved its objective?	
<b>Action F6:</b>	Description of action <i>(as submitted in the IP)</i>	To protect wild salmon stocks from illegal activity which includes illegal fishing, illegal river works etc.
	Expected outcome <i>(as submitted in the IP)</i>	To protect salmon stocks by detecting, deterring and disrupting any illegal activity directed at damaging or removing salmon stocks subject available resources.
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	Difficult to put in a smart target here but a qualitative measure is appropriate. Enforcement activities are recorded and the number of patrols / enforcement outcomes are compiled and regularly reported annually. There is a good communication / co-operation system in place between fisheries agencies (Loughs Agency, Inland Fisheries Ireland (IFI) and DAERA) and also with angling clubs / fishery owners which can help identify illegal fishing activity. A 24 hour telephone service is available to report illegal fishing activity and on call staff can respond if required. The number of patrols carried out and detections made will be reported as part of the NASCO APR process.
	Progress on action to date <i>(Provide a brief overview with a quantitative measure, or other)</i>	Organised enforcement patrols (on land and water) are carried out in both the DAERA and LA areas to deter, disrupt and detect illegal fishing or other activities. In 2023, 2808 patrols were carried out in the DAERA area. A total of 3 illegal nets were seized and any illegal caught salmon were released unharmed. In addition 24 inspections were carried out on commercial premises where salmon can be bought or sold. In the Foyle and Carlingford area, 830 patrols were carried out on land, with 76 patrols carried out by vessel. Loughs Agency also operated a 24 hour pollution and protection hotline. These patrols have resulted in the following seizures from

	<p><i>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)</i></p>	<p>those fishing illegally - 32 nets, 39 fishing rods, 3 boats and cars used in illegal fishing activity, and 13 salmonid fish.  </p>
	<p><b>Current status of action</b>  <i>(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')</i></p>	<p>Ongoing</p>
	<p><b>If 'Completed', has the action achieved its objective?</b></p>	<p> </p>

**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.*

<b>Action H1:</b>	Description of action (as submitted in the IP)	To assess and provide fishery advice for 100% of River drainage maintenance schemes to protect salmon habitat and to incorporate mitigation / improvement measures where possible.
	Expected outcome (as submitted in the IP)	Ensure sensitive / mitigated engineering solutions to maintain or where possible seek opportunities to restore or enhance salmonid habitat.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Both DAERA and LA are informed in advance of river maintenance works and provide advice to ensure the protection of fish habitat present. There is regular monitoring and inspection of stretches where river drainage maintenance works and or habitat improvements are carried out. Rivers maintenance schemes where advice is provided and improvements carried out will be reported as part of the NASCO APR process.
	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)	Fisheries advice was provided for the 2023 DFI river drainage maintenance works programme in both the DAERA and Loughs Agency areas to ensure protection of fish stocks and habitat at the sites where works were carried out. Quarterly meetings are held with DFI Rivers to discuss the ongoing maintenance programme and to ensure the works planned are not detrimental to fish stocks. Loughs Agency is regularly consulted by River maintenance and planning authorities and has a robust consultation response program
	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?	
<b>Action H2:</b>	Description of action (as submitted in the IP)	Management and control of water quality in salmon producing rivers in NI – the target is to have 70% of rivers at good ecological status by 2021.

	Expected outcome <i>(as submitted in the IP)</i>	Protection against degradation of salmonid habitat through pollution or waste disposals.
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	Water quality is regularly assessed and reported on as part of the EU WFD requirements. All discharges are licensed and conditions of that licence are regularly assessed for compliance. Enforcement action maybe taken for non compliance issues. Pollution incidents are investigated and appropriate enforcement action may be taken which in some cases may result in a criminal prosecution for offenders. All enforcement activity is regularly reported to the public and will be included in the NASCO APR Process. Status reports on progress on the WFD goals are reported through the WFD process.
	Progress on action to date <i>(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)</i>	<p>In 2015, 147 (33 %) river water bodies were classified as good or high status. In 2018,141 (31 %) achieved good or high ecological status. In 2021,140 rivers (31 %) achieved good or high ecological status.</p> <p>NIEA carried out 1849 investigations in relation to reports of water pollution in 2023, with enforcement action taken in line with set procedures. There were 11 incidents in 2023 in which fish were killed due to water pollution – 5 were classified as Major and 3 as Moderate. 3 other fish kill events relating to water pollution occurred for which no severity assessment is available.</p> <p>Loughs Agency staff also investigated 265 incidents of pollution in the Foyle and Carlingford area. 14 of which were classed as high, 55 classed as medium, 86 classed as low. There were 3 separate fish kills in the Loughs Agency linked to pollution. One fish kill resulted in the loss of 2352 fish on the Muff River, Lough Foyle, one killed 1302 fish in the Killygordon Burn, tributary of River Finn and one killed 73 fish in the Greenore stream in the Carlingford area. There were also 1 fish kill incident linked to high temperatures/Climate change on McCourt’s Lake in the Carlingford catchment.</p>
	Current status of action <i>(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’)</i>	Ongoing
	If ‘Completed’, has the action achieved its objective?	
	Description of action <i>(as submitted in the IP)</i>	To identify and assess the impact of barriers on 18 primary salmon rivers in NI by 2024.

<b>Action H3:</b>	Expected outcome (as submitted in the IP)	To carry out surveys to identify all potential barriers to fish passage in primary salmon rivers in NI subject to resources and assess fish passage at them.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Where opportunities are identified and the necessary resources / permissions obtained to mitigate and reduce the number of barriers or improve fish passage at the site where they cannot be removed. Rivers where barrier surveys have carried out and assessed along with any mitigation / removal works to be reported as part of the NASCO APR process.
	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)	Barriers assessment surveys have been completed within the following primary Salmon rivers in the DAERA area in 2023: Sixmilewater, Ballinderry, Shimna, Bush, Ballycastle Rivers Glendun. Additional work has been completed on a GIS dashboard to display survey information and assist with the prioritisation of barriers for easement.
	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?	
<b>Action H4:</b>	Description of action (as submitted in the IP)	To update inventory of current and potential salmon habitat on 3 primary salmon rivers in NI.
	Expected outcome (as submitted in the IP)	To update salmon habitat inventory data on a GIS database for the Blackwater, Glendun, Margy /Glenshesk rivers This will help identify and prioritise subsequent habitat enhancement actions. In the Loughs Agency area surveys have been completed and is recorded on GIS layers which are available.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Habitat surveys updates carried out to be reported as part of the NASCO APR process.
	Progress on action to date (Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If	Habitat surveys complete on Glendun and work ongoing on the other rivers.

	<i>sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)</i>	
	Current status of action <i>(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')</i>	Ongoing
	If 'Completed', has the action achieved its objective?	
<b>Action H5:</b>	Description of action <i>(as submitted in the IP)</i>	To enhance degraded habitat or improve salmon habitat on 2 primary salmon rivers annually in NI, with rivers below CL being prioritised. This would equate to a minimum of 2km of upgraded river habitat per year.
	Expected outcome <i>(as submitted in the IP)</i>	To enhance a minimum of 2km of degraded habitat or salmon habitat on primary salmon rivers in NI including government and stakeholder schemes.
	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	Rivers where degraded habitat is enhanced or habitat is improved carried out to be reported as part of the NASCO APR process and where resources permit both pre and post assessments may also be carried out to consider the effectiveness of the works.
	Progress on action to date <i>(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)</i>	In the DAERA area the following works were carried out:  Upper Ballycassidy River – 900 metres of instream nursery habitat and bankside revetment completed, 1000m of livestock fencing erected plus installation of 2 livestock drinkers. 2800 tonnes cobble stone introduced.  River Bush  300m of riparian fencing.  150m restoration of nursery habitat in a degraded channel with associated bank protection and regrading. Addition of c. 1500T of material. Reconnection of high value spawning habitat with nursery habitat to reduce bottleneck on juvenile survival.  Restoration of 3 spawning beds (totalling 150m) including raking of gravel, and removal of weed.  Addition of 150T of spawning gravel.  Agivey



		<p>Restoration of spawning beds (totalling 100m), including raking of gravel, removal of weed, and addition of 100T of spawning gravel.</p> <p>Sixmilewater</p> <p>Restoration of spawning beds (totalling 100m), including raking of gravel, and addition of 80T of spawning gravel.</p> <p>In the LA area salmonid restoration works were carried out on the following rivers;</p> <p>Culdaff River  River Roe  River Finn  Mournebeg River  River Reelan  Clanrye River  Bessbrook River  River Derg  River Faughan  River Dennett  Camowen River  River Strule  Drumragh River  Glenelly River  River Deele:  14.6KM Fencing  4910+ Trees planted  61 Solar pumps  88 Access points  1660m Bank protection</p>
	<p>Current status of action  <i>(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')</i></p>	<p>Ongoing</p>
	<p>If 'Completed', has the action achieved its objective?</p>	<p> </p>



**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.*

<p><b>Action A1:</b></p>	<p>Description of action (as submitted in the IP)</p>	<p>To manage sea lice levels in salmon aquaculture in NI vigilance will remain high through:</p> <ul style="list-style-type: none"> <li>• continued monitoring of farm practices, records and activities by DAERA Inspectors in relation to sea lice counts on fish;</li> <li>• annual health inspection and surveillance sampling by DAERA in compliance with Regulation (EU) 2016/429;</li> <li>• DAERA Inspectors carryout inspections at harvest and count sea lice as outlined in A3</li> <li>• If sea lice levels remained above the farm background levels for a significant period of time, DAERA would meet with the operators to discuss options for reducing the levels.</li> </ul>
	<p>Expected outcome (as submitted in the IP)</p>	<p>Sea lice levels on Aquaculture salmon are expected to remain low.</p>
	<p>Approach for monitoring effectiveness &amp; enforcement (as submitted in the IP)</p>	<p>Findings / results recorded, analysed and retained. Remedial action taken where deficiencies are found, DAERA would meet with the operators to discuss options for reducing the levels. Outcomes will be reported as part of the APR process.</p>
	<p>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)</p>	<p>DAERA Fisheries inspectors continued monitoring of farm practices, records and activities in relation to sea lice counts on fish. This included the risk ranked health inspection and surveillance sampling by DAERA officers in compliance with Regulation (EU) 2016/429</p> <p>No treatment for sea lice was required by the operator throughout 2023. Inspections were carried out during 9 site visits at harvesting to assess sea lice levels on fish and the results are reported in A3.</p>
	<p>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</p>	<p>Ongoing</p>

	<i>ongoing action that is reported on annually, it should be marked as 'Ongoing')</i>	
	If 'Completed', has the action achieved its objective?	
<b>Action A2:</b>	Description of action (as submitted in the IP)	Monitor for Non NI escapee aquaculture salmon in a wild salmon stock in N. Ireland.
	Expected outcome (as submitted in the IP)	Escapee aquaculture salmon not from NI are monitored annually at the River Bush trap.
	Approach for monitoring effectiveness & enforcement (as submitted in the IP)	Full time adult trap in place to monitor all adults returning to the R Bush. All adults are assessed for a range of biological parameters. All escapees are removed from the system and data recorded. The results will be included in the NASCO APR.
	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)	No escaped aquaculture salmon were detected at the River Bush salmon trap in 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?	
<b>Action A3:</b>	Description of action (as submitted in the IP)	Monitoring sea lice levels in aquaculture salmon in N. Ireland.
	Expected outcome (as submitted in the IP)	An annual assessment of sea lice levels of sea cage reared salmon in N. Ireland.
	Approach for monitoring	There is an overall annual assessment of sea lice based on data on sea lice levels obtained during the inspection of monthly harvesting operations by

	effectiveness & enforcement <i>(as submitted in the IP)</i>	DAERA staff. The data collected is regularly reviewed by DAERA and will be included in the NASCO APR Process.																																																																																																										
	Progress on action to date <i>(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)</i>	<p>Inspections were carried out during 9 site visits at harvesting to assess sea lice levels on fish and the following results were obtained.</p> <table border="1"> <thead> <tr> <th rowspan="2">Date</th> <th colspan="2">No fish harvested</th> <th rowspan="2">No +ve fish</th> <th rowspan="2">% infected with Lep. Salmonis</th> <th colspan="4">No of fish with:</th> <th rowspan="2">Total no. lice</th> </tr> <tr> <th>during inspection</th> <th>No fish Inspected</th> <th>1 louse</th> <th>2 lice</th> <th>3 lice</th> <th>4 lice</th> </tr> </thead> <tbody> <tr> <td>11/01/2023</td> <td>1560</td> <td>311</td> <td>16</td> <td>5.14</td> <td>16</td> <td>0</td> <td>0</td> <td>0</td> <td>16</td> </tr> <tr> <td>22/02/2023</td> <td>1400</td> <td>205</td> <td>3</td> <td>1.46</td> <td>3</td> <td>0</td> <td>0</td> <td>0</td> <td>3</td> </tr> <tr> <td>22/03/2023</td> <td>1450</td> <td>205</td> <td>1</td> <td>0.48</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> </tr> <tr> <td>05/04/2023</td> <td>1300</td> <td>200</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>24/05/2023</td> <td>1160</td> <td>218</td> <td>4</td> <td>1.83</td> <td>4</td> <td>0</td> <td>0</td> <td>0</td> <td>4</td> </tr> <tr> <td>28/06/2023</td> <td>1300</td> <td>260</td> <td>6</td> <td>2.31</td> <td>6</td> <td>0</td> <td>0</td> <td>0</td> <td>6</td> </tr> <tr> <td>09/08/2023</td> <td>1300</td> <td>282</td> <td>5</td> <td>1.77</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> <td>5</td> </tr> <tr> <td>25/10/2023</td> <td>1890</td> <td>400</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>13/12/2023</td> <td>1865</td> <td>305</td> <td>1</td> <td>0.3</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> </tr> </tbody> </table>	Date	No fish harvested		No +ve fish	% infected with Lep. Salmonis	No of fish with:				Total no. lice	during inspection	No fish Inspected	1 louse	2 lice	3 lice	4 lice	11/01/2023	1560	311	16	5.14	16	0	0	0	16	22/02/2023	1400	205	3	1.46	3	0	0	0	3	22/03/2023	1450	205	1	0.48	1	0	0	0	1	05/04/2023	1300	200	0	0	0	0	0	0	0	24/05/2023	1160	218	4	1.83	4	0	0	0	4	28/06/2023	1300	260	6	2.31	6	0	0	0	6	09/08/2023	1300	282	5	1.77	5	0	0	0	5	25/10/2023	1890	400	0	0	0	0	0	0	0	13/12/2023	1865	305	1	0.3	1	0	0	0	1
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<b>Action A4:</b>	Description of action <i>(as submitted in the IP)</i>	Monitoring levels of genetic introgression of aquaculture salmon into wild stocks in NI.																																																																																																										
	Expected outcome <i>(as submitted in the IP)</i>	Triennial assessment of levels of genetic introgression of aquaculture salmon into wild stocks adjacent to the sites for salmon aquaculture in NI.																																																																																																										

	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	Every three years samples collected are assessed to monitor levels and trends of introgression in wild stocks of rivers adjacent to the salmon aquaculture site. The results will be included in the NASCO APR.
	Progress on action to date <i>(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)</i>	In the 2014 study a maximum of 5.9% of juveniles had genomes of part farmed origin, compared to 1.9% in the 2018 study. Genetic samples have been collected for 2021 and are currently being analysed. The results will be reported as part of the 2024 NI APR. Genetic samples for analysis will also be collected in 2024 for analysis
	Current status of action <i>(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')</i>	Ongoing
	If 'Completed', has the action achieved its objective?	
<b>Action A5:</b>	Description of action <i>(as submitted in the IP)</i>	To assess marine aquaculture sites annually.
	Expected outcome <i>(as submitted in the IP)</i>	To assess the potential for escapement of fish from marine aquaculture in NI each year.

	Approach for monitoring effectiveness & enforcement <i>(as submitted in the IP)</i>	DAERA staff will inspect the cages at marine aquaculture sites each year. The results will be included in the NASCO APR.
	Progress on action to date <i>(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)</i>	There were no reports of escaped farmed salmon from the aquaculture marine site in NI in 2023. Visual inspection of the cages were carried out during the 9 inspection visits with no structural issues identified.
	Current status of action <i>(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')</i>	Ongoing
	If 'Completed', has the action achieved its objective?	
<b>Action A6:</b>	Description of action <i>(as submitted in the IP)</i>	To establish Long term monitoring through the establishment of a sea lice-mortality risk index in wild anadromous salmonids in an area with aquaculture production.
	Expected outcome <i>(as submitted in the IP)</i>	An annual assessment of the risk of sea lice induced mortality in post-smolt salmonids in an area of aquaculture activity.

	<p>Approach for monitoring effectiveness &amp; enforcement <i>(as submitted in the IP)</i></p>	<p>An annual sampling of wild sea trout post-smolts immediately upon return from the sea in the spring in rivers in the area of aquaculture production. These fish will be assessed for sea lice burden. This data will be used to calculate a salmonid risk index which estimates the increased mortality due to sea lice infestation, based on the assumption (based on peer-reviewed science) that small salmonid post-smolts (&lt;150 g body weight) experience similar sea lice mortality rates. Results will be reported in the APR.</p>
	<p>Progress on action to date <i>(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)</i></p>	<p>Fresh run, x.0+ sea age sea trout (finnock), are sampled from the sea pools of 2 rivers in the DAERA area of N. Ireland. Sampling is undertaken at the Glenarm river (&lt; 1 km from NI aquaculture facilities) and the Shimna river (&gt;120 km distant from NI aquaculture facilities). The sampling is undertaken in early summer and targets sea fresh finnock off the tide. These young, sea trout inhabit coastal areas and act as a convenient sentinel for sea lice numbers.</p> <p>The mean sea lice count/fish on Glenarm finnock (n=11) was 2.5 (+/-1.8) lice/fish which showed no significant difference to Shimna finnock (n=9) which showed a mean level of 1.8 (+/- 2.5) lice/fish.</p> <p>The continued development of this time-series will provide useful contextual information on the numbers of sea lice present on wild N Irish salmonids.</p>
	<p>Current status of action <i>(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')</i></p>	<p>Ongoing</p>
	<p>If 'Completed', has the action achieved its objective?</p>	

**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.

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.
<b>North American Commission Members only:</b>	
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.