



Agenda Item 7.1
For decision

Council

CNL(18)13

***Report of the Meeting of the Implementation Plan / Annual Progress Report
Review Group***

CNL(18)13

Report of the Meeting of the Implementation Plan / Annual Progress Report Review Group

Rydges Kensington Hotel, London, UK

18 and 19 April 2018

1. Opening of the Meeting

- 1.1 The Chair, Mr Rory Saunders (USA), opened the meeting and welcomed members of the Review Group to London. He noted that the main task before the Review Group was to evaluate the 2018 Annual Progress Reports (APRs) under the 2013 - 2018 Implementation Plans (IPs) which detail the measures to be taken by Parties / jurisdictions to implement NASCO's agreements. The evaluation is intended to ensure that Parties / jurisdictions have provided a clear account of progress in implementing and evaluating the actions detailed in their IPs and the other information requested in the APRs.
- 1.2 Paddy Gargan, Hugo Hansen, Paul Knight, Rory Saunders (Chair), Steve Sutton and Lawrence Talks participated in the meeting. The NASCO Secretary co-ordinated the work of the Group and the NASCO Assistant Secretary also assisted the work of the Review Group.

2. Adoption of the Agenda

- 2.1 The Review Group adopted its Agenda, IP(18)03 (Annex 1).

3. Review of the Terms of Reference and Consideration of Working Methods

- 3.1 The primary purpose of APRs is to provide details of:
 - any changes to the management regime for salmon and consequent changes to the IP;
 - actions that have been taken under the IP 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.
- 3.2 The Council had agreed (see CNL(12)44) that the purpose of the evaluation of the APRs is to ensure that Parties / jurisdictions have provided a clear account of progress in implementing and evaluating the actions detailed in their IPs and have provided the information required under the Convention. In 2017, the Council had agreed that rather than developing questions for response by the Parties / jurisdictions, in future the Review Group should provide details of its evaluation of progress on each action in a table at the end of its review, highlighting shortcomings. The Parties / jurisdictions would be asked to address these shortcomings in their APRs for the following year.

Working Methods

- 3.3 The Review Group adopted the same working methods as it had used at its previous meetings as described in document CNL(16)13. In summary, the Review Group continued to adopt the following ‘ground rules’ in undertaking its 2018 evaluations:
- (a) initial reviewers were appointed for each APR (mainly the same reviewers as for the IPs and previous APR evaluations) and asked to lead the discussion within the Group and to produce an initial evaluation of each APR. This included an assessment of progress against each of the actions in the IP and the reporting on: new initiatives or achievements for salmon conservation and management; stock status and new factors affecting salmon abundance; catch statistics; and the additional information required under the Convention;
 - (b) in reporting the evaluations, the initial reviewers remained anonymous but in the event that one or more members of the Review Group did not agree with a particular aspect or aspects of the evaluation, the report would indicate that there were dissenting views without disclosing which members of the Group expressed the dissenting views unless they wished to be identified;
 - (c) while the Group drew on information in the IPs, it only commented on the information presented in the APRs;
 - (d) because not all Parties / jurisdictions were represented on the Group, it was agreed that a member of the Review Group from a Party / jurisdiction whose APR was being reviewed would not be present during the initial review of that report. The members of the Group were appointed by the Council to represent NASCO, not their Party / Organization.
- 3.4 For each APR, the Review Group assessed whether satisfactory responses had been provided on:
- any changes to the IP, new initiatives and significant changes in stock status;
 - the provision of complete catch data;
 - progress made on each action; and
 - other returns required under the Convention.
- 3.5 When all evaluations were complete, a consistency check was undertaken of all the assessments.

4. Update on Receipt of Implementation Plans and Evaluation of any new IPs

Overview of the IP evaluations

- 4.1 In its report to the Council’s Thirty-Second (2015) Annual Meeting, the Review Group had noted that it had reviewed 18 IPs and, of these, 11 were considered to be satisfactory. The Review Group had considered that the following IPs contained clear omissions or inadequacies: Canada; Denmark (in respect of the Faroe Islands and Greenland) - Faroe Islands; EU - Spain (Asturias); EU - Spain (Cantabria); EU - Spain (Galicia); EU - UK (Scotland); and the Russian Federation. Although a revised IP for EU - Spain (Galicia) was received in 2015, the Review Group had noted that the changes were mainly of an editorial nature.

- 4.2 For those jurisdictions that have salmon farming, the Review Group had recognised that providing quantitative data to demonstrate progress towards the international goals for sea lice and containment (questions 4.2 and 4.3 in the IP template, respectively) was challenging. However, the Group had expressed the opinion that the IPs for all Parties / jurisdictions with salmon farming should present quantitative data in a transparent manner to demonstrate progress made over the period of the IP towards the international goals for sea lice and containment rather than describing only the management measures in place. The Review Group had recommended that where this information had not been provided in the IPs, it should be reported through the APRs or, if that was not feasible, prior to the start of the next IP cycle.
- 4.3 The Review Group had emphasised that a score of ‘1’ on an IP simply meant that a satisfactory answer / information had been provided and it did not mean that the Party / jurisdiction concerned was necessarily meeting NASCO guidelines or agreements. In some cases, responses were considered to be satisfactory even when the response was incomplete, provided that an action had been identified to begin to address any major shortcoming.

Changes to IPs since the 2017 Review Group meeting

- 4.4 It is the Council’s intention that IPs apply for the period 2013 - 2018, and generally require no annual modification unless circumstances change significantly. At its 2014 Annual Meeting, the Council had asked that where a Party / jurisdiction had changed its IP, it should send the revised IP to the Secretariat no later than 1 December each year.
- 4.5 Following the Review Group’s 2015 meeting, and prior to NASCO’s 2015 Annual Meeting, an Implementation Plan was received for EU - France, CNL(15)39rev. It had been submitted to the Secretariat as a partial plan to be further developed and it did not include identification of any threats / challenges in relation to aquaculture, introductions and transfers and transgenics and, consequently, no relevant actions. It was not, therefore, reviewed. However, the Review Group had welcomed this contribution, noted that the IP appeared to be generally satisfactory and encouraged EU - France to complete its plan without further delay so that it could be fully evaluated. The 2017 APR indicated that France was committed to submitting a complete IP by the second half of 2017. This has not yet been received. The Review Group is concerned that after three years the remaining section (aquaculture, introductions and transfers and transgenics) of the French IP is still not complete.
- 4.6 At the time of the Review Group’s meeting, an IP had still not been received for EU - Portugal which is a concern given the significant challenges facing salmon managers in the southern part of the species’ range. However, the Review Group noted that EU - Portugal had provided information for inclusion in the Rivers Database in 2018 and expressed hope that EU - Portugal might submit an IP timeously under the next round of IP reporting.
- 4.7 The Review Group had previously noted that a self-assessment using the Six Tenets for Effective Management of an Atlantic Salmon Fishery had been received from EU - Spain (Bizkaia) but an IP has not been submitted. The Review Group encourages EU - Spain (Bizkaia) to participate in the IP process and submit an IP under the next round of IP reporting.

- 4.8 Since the Council's 2017 Annual Meeting, one revised IP had been received from EU - UK (Northern Ireland). This revised IP is available on the NASCO website at www.nasco.int/implementation_plans_cycle2.html. The Review Group did not re-evaluate the IP but it noted that the changes made were helpful in enabling the Group to carry out its review because a more streamlined and succinct set of actions had been identified for each of the main threats and challenges in the IP enabling clearer reporting on progress to be made. The Review Group wishes to hold up this revised IP as a good example of the use of clear actions to address well-defined threats and challenges.

5. Evaluation of the 2018 Annual Progress Reports and Development of Feedback to the Parties / jurisdictions

Overview of the 2017 Annual Progress Report Evaluations

- 5.1 In 2018, the Review Group noted that several of the 2018 APRs had provided similar information to that provided in their reports from 2014 to 2017, even when the Group had previously sought clarification or further detail in its questions. The Review Group had again noted that evaluating the progress reported on actions in the APRs was very difficult when the descriptions of the planned actions in the IP were vague or imprecise. The Group had further noted that the APRs for several Parties / jurisdictions continued to lack a clear account of progress in implementing and evaluating some, or all, of the actions detailed in their IPs, despite the further guidance provided on completing the template and the provision of examples of good practice. The Review Group again expressed concern that, for some Parties / jurisdictions where actions were on-going, there was either no report of progress or the reporting was unclear. Overall, the Review Group had again considered that the most common fault with the information provided continues to be a lack of quantitative evidence on the extent of the progress made and / or what the results have been. All Parties / jurisdictions are urged to address this in future APRs.

2018 Annual Progress Report Evaluations

- 5.2 The 2018 APR template was issued on 11 January 2018 and Parties / jurisdictions had been asked to complete and return their APRs to the Secretariat by 29 March 2018. Denmark (in respect of the Faroe Islands and Greenland) - Faroe Islands, European Union - Germany, European Union - Sweden, European Union - UK (Scotland), Norway, the Russian Federation and the United States submitted their APRs by this date. The others were received between 9 and 16 April. As requested by the Council, the Secretariat had completed the 'Description of Actions' and 'Expected Outcomes' fields in the APR template for each Party / jurisdiction using the text from the most recent versions of the IPs. The Secretariat had also amended the 'Current Status of Action' field to include only three options: 'Not started', 'Ongoing' and 'Completed' as requested.
- 5.3 Eleven APRs were submitted to the Review Group prior to its 2018 meeting and reviewed by them.

Party / jurisdiction	Document No.	Date APR received by Secretariat
Canada	CNL(18)28	9 April 2018
Denmark (in respect of the Faroe Islands and Greenland) - Faroe Islands	CNL(18)21	20 March 2018
Denmark (in respect of the Faroe Islands and Greenland) - Greenland	No document received prior to the meeting	
EU - Denmark	No document received prior to the meeting	
EU - Finland	No document received prior to the meeting	
EU - France	No document received prior to the meeting	
EU - Germany	CNL(18)24	23 March 2018
EU - Ireland	CNL(18)31	16 April 2018
EU - Portugal	No document received prior to the meeting	
EU - Spain (Asturias)	No document received prior to the meeting	
EU - Spain (Cantabria)	No document received prior to the meeting	
EU - Spain (Galicia)	No document received prior to the meeting	
EU - Spain (Navarra)	No document received prior to the meeting	
EU - Sweden	CNL(18)25	27 March 2018
EU - UK (England and Wales)	CNL(18)29	9 April 2018
EU - UK (Northern Ireland)	CNL(18)30	12 April 2018
EU - UK (Scotland)	CNL(18)27	28 March 2018
Norway	CNL(18)22	21 March 2018
Russian Federation	CNL(18)26	28 March 2018
United States	CNL(18)23	21 March 2018

5.4 The Review Group's evaluations of the 2018 APRs are contained in document IP(18)04 (Annex 2). All the evaluations were agreed unanimously by the Review Group. The Review Group used the following format in presenting its evaluations:

- a paragraph (shown in bold italics) summarising its overall assessment of the APR in terms of whether it provided a clear account of progress and noting any shortcomings;
- a paragraph highlighting interesting developments or challenges related to implementation of NASCO's agreements and guidelines;
- paragraphs summarising the actions taken in relation to management of fisheries, habitat protection and restoration and aquaculture and related activities; and
- a table providing details of the Review Group's evaluation of progress on each action, highlighting any shortcomings and adding comments or recommendations where it was considered to be helpful to inform future reporting.

5.5 In 2017, the Council had requested that the Review Group develop a table at the end of each review providing details of its evaluation on progress on each action, highlighting any shortcomings, rather than producing a series of questions to be asked about each action. The Council had agreed that the Parties / jurisdictions would be asked to address these shortcomings in their APRs the following year. The Review Group discussed how this would be addressed and agreed the following:

- the ‘status of action’ used to report progress in the overview of progress table in previous evaluation reports would be used to ensure consistency with categories with which Parties and jurisdictions are familiar. However, an extra category will be added (OG-UD) as below and one (OG-NP) modified. The ‘status of action’ categories are:
 - NS = Not Started;
 - OG = Ongoing - clear progress;
 - OG-NP = Ongoing – no progress;
 - OG-UD = Ongoing – unable to determine progress;
 - CD = Completed - clear progress;
 - CD-NP = Completed - without clear progress;
- progress on each action would be evaluated and categorised according to the list above;
- where progress on a particular action is deemed to be of special note, the Review Group would highlight in the table why the progress is well reported;
- where progress is deemed to be ongoing but the Review Group considers that improvements could be made to future reporting, these improvements would be suggested in a comments / recommendations column in the table;
- for actions where progress is not able to be determined, standard descriptors, giving an explanation of the shortcomings, would be used, with further explanations (in italics) as to why these descriptors were used in each case. The agreed standard descriptors are:
 - action not yet started;
 - lack of quantitative data to demonstrate progress;
 - reliance on references to websites or publications;
 - reporting timeframe not clearly specified;
 - no progress has been made in the reporting year;
 - progress report is unclear.

The table that will be used is as follows:

Action No.	Status of Action	Explanation of shortcoming	Comments / Recommendations
<i>Management of Salmon Fisheries</i>			
F1			
F2			
<i>Habitat Protection and Restoration</i>			
H1			
H2			
<i>Aquaculture and Related Activities</i>			
A1			
A2			

5.6 The Review Group reiterated its hope that the new way of reporting shortcomings in the APRs for several Parties / jurisdictions that continued to provide an unclear account of progress in implementing and evaluating some, or all, of the actions detailed in their

IPs, would ensure that the kind of information required to ensure clear reporting on actions would be clearer to all Parties / jurisdictions and would be used for future reporting.

- 5.7 The Review Group also noted that several of the 2017 APRs had provided similar information to that provided in 2014, 2015 and 2016 even when the Review Group had previously sought clarification or further detail in its questions.
- 5.8 The Review Group is again concerned by the lack of quantitative data supplied in the reporting of progress of actions. This has been a commonly reported fault and continues to be the case; it results in unclear reporting because the evidence to assess the extent of progress is missing. All Parties / jurisdictions are asked to address this in future APRs.
- 5.9 These shortcomings are a continuing concern to the Review Group given that improving commitment to NASCO agreements was a key aspect of the ‘Next Steps’ and External Performance reviews and as the second reporting cycle is almost completed. When preparing future APRs, Parties / jurisdictions are again reminded to provide evidence of progress made to address the action in the current year or to indicate that no further progress was made, taking into account the comments on shortcomings given in the current report.
- 5.10 The Review Group commented that in many instances acronyms are used throughout the reports with no explanation of their meaning. It would be helpful to the reviewers if all Parties / jurisdictions could take care to ensure that acronyms are clearly explained. Additionally, the Review Group would reiterate the comments in the APR text that a brief overview with a quantitative measure of progress is needed for each action. Other material, such as web-links, publications and appended information, will not be evaluated.
- 5.11 The Review Group wishes to particularly commend EU - UK (Northern Ireland) for the clarity of its 2018 APR.
- 5.12 The Review Group noted that several Parties/jurisdictions reported some interesting and useful developments and challenges in addressing NASCO’s Resolutions, Agreements and Guidelines, including:
- **Canada:** its Wild Atlantic Salmon Conservation Policy has been revised. One key requirement of which is to develop an Implementation Plan, which will be updated every two years. It is expected that this will be completed for Ministerial consideration and approval by Fall/Winter 2018. On January 30, 2017, the House of Commons Standing Committee on Fisheries and Oceans (SCOFO) tabled a report calling on the Government to take action in response to declining wild Atlantic salmon returns in Eastern Canada. The SCOFO report made 17 recommendations on various topics concerning salmon conservation. As part of the Government of Canada’s Review of Environmental and Regulatory Processes, on February 6, 2018, the Government of Canada introduced a bill in Parliament that proposes amendments to the *Fisheries Act* to restore lost protections and incorporate modern safeguards into the Act;
 - **EU - Germany:** The International Commission for the Protection of the Rhine (ICPR) ‘Master Plan Migratory Fish Rhine’ is being updated and will be published

in summer 2018. In 2017 Atlantic salmon were found throughout the River Elbe basin, with the first evidence of salmon redds in the River Pulsnitz for more than 100 years. Additionally, around 20 salmon have been observed in the River Kamenice in the Czech Republic;

- **EU – Ireland:** New legislation came into force in July 2017 that resolved a legal discrepancy to prosecute offenses under the Fisheries Acts;
- **EU - Sweden:** Catches of salmon have been insignificant on the Swedish coast over the 2015-2017 period due to a ban on the use of gill nets in deeper coastal waters and a restricted licensing system. Therefore, the extent of mixed-stock fishing on the coast is now insignificant with no salmon reported in the commercial catch in 2017. A bag-limit for non-commercial fishermen using rod and line is also in place;
- **EU - UK (England and Wales):** across England and Wales, new regulatory measures are being proposed to reduce significantly Atlantic salmon exploitation by commercial net fisheries and recreational anglers;
- **EU - UK (Northern Ireland):** all primary rivers have now been surveyed for salmon habitat and CLs established on them. Commercial salmon fisheries no longer operate in Northern Ireland. Legislation is now in place across Northern Ireland which restrict recreational harvest to only rivers meeting their management targets;
- **EU - UK (Scotland):**-The Scottish Government introduced a series of legislative measures to manage exploitation in 2016 to ensure harvesting is sustainable and does not damage vulnerable stocks or the network of Special Areas of Conservation. The killing of salmon in inland waters is managed on an annual basis with mandatory catch and release introduced for those districts (or rivers) where stocks are below their conservation limits. During 2017, further refinements were made to the annual assessment process including more fish counters and local habitat data. For 2017 16 of stocks were categorised as grade 1; 12% as grade 2 and the remaining 71% as grade 3. Corresponding proportions for 2017 were 28%, 29% and 43% respectively;
- **Norway:** classification of 148 salmon stocks (representing 83% of the total Norwegian spawning target) using a National Quality Norm for Wild Salmon. While management targets were achieved for 120 of these stocks, only 29 of the stocks were classed as ‘Good or very good’ and 77 stocks were classed as ‘Poor or very poor’;
- **Russian Federation:**-In 2016, mortality attributed to UDN was again observed in the Kola River and in 2017, 14.5% of salmon counted at the fish fence on the Kola River were recorded with UDN. Salmon were also recorded with UDN at the fish-trap of the Lower Tuloma fish ladder in 2017. The introduction of the parasite *Gyrodactylus salaris* to the salmon rivers Pak and Shovna (Murmansk region) was confirmed in 2017. In the light of the confirmed introduction of *G. salaris* into these two rivers, it is still of concern that no obligatory measures to prevent the introduction or further spread of the parasite through recreational fisheries have been developed.

Parties / jurisdictions not submitting APRs

5.13 On the first day of the Review Group’s meeting, APRs were received from:

- EU - Finland;
- EU - France;

- EU - Spain (Asturias);
- EU - Spain (Galicia); and
- EU - Spain (Navarra).

No time was available to the Review Group to review these late-submitted Annual Progress Reports and, consequently, they were not reviewed.

By the end of the Review Group's meeting, APRs had still not been officially received from:

- Denmark (in respect of the Faroe Islands and Greenland) - Greenland;
- EU - Denmark;
- EU - Portugal;
- EU - Spain (Cantabria)

The lack of reporting of these APRs to NASCO is of concern to the Review Group.

Improvements to the APR template

- 5.14 As requested in 2017, the Secretary changed the reporting template such that there would only be three reporting options for the status of action drop-down menu, i.e. 'Not Started', 'Ongoing', 'Completed'. The Review Group considered that it would be clearer to use only three choices for reporting. There were some instances of Parties / jurisdiction using the 'Completed' status when actions still appeared to be 'Ongoing', but on the whole the Review Group felt the use of three, rather than four, reporting options was helpful.

6. Arrangements for Presenting the Group's Report to the Council

- 6.1 The Review Group agreed that the Chair would present its report to the Council during the Special Session at the Thirty-Fifth (2018) Annual Meeting. The Group agreed that this should briefly summarise the Group's working methods and provide an overview of the evaluations in terms of completeness and timeliness of reporting and progress to date. The circulation of the evaluations ahead of the Annual Meeting should facilitate discussion at the meeting involving all Parties and NGOs.

7. Recommendations for the Third Round of Implementation Plans

- 7.1 At its 2015 meeting, the Review Group had discussed changes that might be made to the next (third) cycle of IPs and the subsequent APRs, which it anticipates will commence in 2019, so that these might be considered with a view to improving the effectiveness of future reporting. These changes, highlighted in CNL(17)14, were incorporated into the deliberations of the Working Group on Future Reporting to produce a plan for the next (third) cycle of IPs which will commence in 2019, and the subsequent APRs.
- 7.2 The Review Group was happy that the reporting across the second cycle had improved immensely for some Parties and jurisdictions. However, there was still clear scope for

improvement and the Review Group concurred that the process needs to be more challenging in the next cycle of reporting.

- 7.3 The Review Group would like to see specific year information (i.e. in the relevant reporting year) in the context of other years data reported for each action where quantifiable data is relevant. Charts / graphs of the data to show possible trends over time would be especially welcomed. Action F4 in the 2018 APR for Canada and Action A1 in the 2018 APR for Denmark (in respect of the Faroe Islands and Greenland) – Faroe Islands give clear examples of this kind of reporting. Even though the quality of data reporting has improved over the second cycle, quantifiable data is still lacking in many areas. This includes timely reporting of catch data in addition to a general lack of quantifiable progress reported.
- 7.4 The Review Group would like to emphasise that actions in the next round of IPs should be linked specifically to the achievement of NASCO's goals and objectives, with particular reference to the protection of wild Atlantic salmon.
- 7.5 The Review Group would encourage all Parties and jurisdictions to ensure that actions are included in their IPs in the appropriate section, i.e. fisheries, habitat or aquaculture. This has clearly not been the case in some IPs under the second reporting cycle and has created difficulty in the review process

8. Report of the Meeting

- 8.1 The Review Group agreed a report of its meeting.

9. Any Other Business

- 9.1 The Review Group discussed whether sharing experience on the development of stock-specific reference points and how they are used to inform management would be a useful subject for a future Special Session.
- 9.2 There was no other business.

10. Close of the Meeting

- 10.1 The Chair thanked the members of the Review Group for their contribution to the meeting and wished them a safe journey home.

IP(18)03

***Meeting of the
Implementation Plan / Annual Progress Report Review Group***

Oak Room, Rydges Kensington Hotel, 61 Gloucester Road, London SW7 4RE

18 and 19 April 2018

Agenda

1. Opening of the Meeting
2. Adoption of the Agenda
3. Review of the Terms of Reference and Consideration of Working Methods
4. Update on Receipt of Implementation Plans and Evaluation of any new IPs
5. Evaluation of the 2018 Annual Progress Reports and Development of Feedback to the Parties / jurisdictions
6. Arrangements for Presenting the Group's Report to the Council
7. Recommendations for the Third Round of Implementation Plans
8. Report of the Meeting
9. Any Other Business
10. Close of the Meeting

Secretary
London
18 April 2018

IP(18)04

***Evaluation of Annual Progress Reports from the Review Group
to Parties / jurisdictions***

Canada, CNL(18)28

The Annual Progress Report provides a generally clear and comprehensive report on the 12 actions identified in the Implementation Plan, particularly in relation to Action F4. Ten of these actions are on-going and two actions (Actions F1 and A3) have been completed. Action F2 did not provide clear evidence of progress and it remains unclear, under Actions A1 and A2, whether the international goals for sea lice and containment set out in the NASCO Guidance on Best Management Practices to address Impacts of Sea Lice and Escaped Farmed Salmon on Wild Salmon Stocks, are being achieved and / or whether quantifiable progress is being made.

Canada has revised its Wild Atlantic Salmon Conservation Policy. One key requirement of which is to develop an Implementation Plan, which will be updated every two years. It is expected that this will be completed for Ministerial consideration and approval by Fall/Winter 2018. On January 30, 2017, the House of Commons Standing Committee on Fisheries and Oceans (SCOFO) tabled a report calling on the Government to take action in response to declining wild Atlantic salmon returns in Eastern Canada. The SCOFO report made 17 recommendations on various topics concerning salmon conservation. As part of the Government of Canada's Review of Environmental and Regulatory Processes, on February 6, 2018, the Government of Canada introduced a bill in Parliament that proposes amendments to the *Fisheries Act* to restore lost protections and incorporate modern safeguards into the Act.

Actions related to the management of salmon fisheries: The 2017 catch and release rate in recreational fisheries was estimated at 92.7% for large salmon and 42% for small salmon, which resulted in 87,691 salmon returned. The Review Group notes that this is a substantial increase on 2016. In Newfoundland and Labrador, declines in returns of >30% were observed on most of the monitored rivers in 2017. This led to a mid-season review and on 6 August the island of Newfoundland was closed to all retention Atlantic salmon angling but remained open to catch and release angling for the remainder of the season. To help make timely management decisions, the Newfoundland and Labrador region will be moving to a 2-year management / science assessment cycle. In Quebec, since the implementation of its Atlantic Salmon Management Plan 2016-2026, the harvest of large salmon by recreational anglers has reduced by 34% in comparison to the previous 5-year average, salmon returns have stayed relatively stable and anglers' presence on rivers has increased by 7%. New regulatory changes are being worked on to reduce the annual limit from 7 salmon, large or small, to 4 salmon, including a single large salmon. In New Brunswick, Nova Scotia and Prince Edward Island restrictive measures, including total catch and release and gear restrictions, continued in 2017 (Action F1). Fisheries and Ocean Canada is working with stakeholders to determine the course of action to address the smallmouth bass issue in Miramichi lake, which is connected to the Miramichi River in New Brunswick. Since the containment and eradication plan was put in place (2010 – 2012) limited progress is evident within the report (Action F2). The West River

Acid Rain mitigation project installed a second lime doser and completed a second year of helicopter assisted catchment liming. To address the legacy of log driving and road construction, 1.8 km of West River habitat was restored, creating greater habitat heterogeneity including 2-3m deep pools, which provide cool water habitat (Action F3). The provision of enforcement data is a prime example of the type of quantitative information that the Review Group requires to assess effective progress. Enforcement continues to be actively pursued with 5,414 fishers and 20,481 fishing sites checked and 379 violations detected in 2017 (Action F4). Measures in place to restrict salmon by-catch include: depth restrictions for fixed gear, mandatory log books, closed areas for gillnets, closed times, gear restrictions, delayed season openings on some rivers for trout angling and the requirement that all incidental catch of Atlantic salmon must be returned to the water. The Review Group notes lack of bycatch reporting from the Labrador trout net-fishery (Action F5).

Actions related to habitat protection and restoration: As part of the Government of Canada's Review of Environmental and Regulatory Processes, on February 6, 2018, the Government of Canada introduced a bill in Parliament that proposes amendments to the *Fisheries Act* to restore lost protections and incorporate modern safeguards into the Act. As part of the Recovery Strategy and Action Plan for Atlantic salmon in the Inner Bay of Fundy 2016-2020, activities include: establishing a Critical Habitat Order to protect the identified critical habitat; continuation of the Live Gene Bank (LGB) program to conserve genetic characteristics and help re-establish self-sustaining populations; marine rearing of wild Fundy National Park salmon; continuation of river specific monitoring and recovery activities; and examining the relationship between marine survival and identified marine threats. Federal funding programmes, Aboriginal Funds for Species at Risk and the Recreational Fisheries Conservation Partnerships Programme provided financial support for salmon conservation and recovery activities (>\$2.4m) (Action H1). The 'Fisheries Protection Program' guidelines on: pipeline and transportation watercourse crossings; large and medium water intakes; and marine and coastal infrastructure are now in the final stages of approval and/or implementation (Action H2). Inter-jurisdictional discussions and collaborative activities are on-going but no new agreements have been struck (Action H3).

Actions related to aquaculture and associated activities: The Government of Canada, through Fisheries and Ocean Canada, continues to explore options for an Aquaculture Act that would, among other aspects, consider the incorporation of an outcomes-based standard for sea-lice management and containment of farmed fish. It is proposed to amend the Aquaculture Activity Regulations to incorporate a science-informed monitoring standard that will regulate the fate and potential environmental effects from the application of pest control products and drugs, in parallel to the existing requirement to report on the use of all sea lice pest control products and drugs. The aquaculture sector continues to implement an Integrated Pest Management Programme which has also focused on research and development of alternative sea lice treatments using warm water treatments or freshwater bath treatments. In New Brunswick, the Inner Bay of Fundy recovery and stock enhancement programme continued in 2017. The province of Nova Scotia initiated and implemented a web-based data management system "i-Trends" (2016-2017), with the other Atlantic Provinces, for sea lice monitoring through the Atlantic Veterinary College, Centre for Aquatic Health Sciences. In Nova Scotia all aquaculture licence holders were required to have a Farm Management Plan as of October 26, 2016. In Newfoundland and Labrador oceanography work continued in 2017 to inform Bay Management Area planning for salmon aquaculture along the south coast (Action A1). Nova Scotia has specifically established a containment management section within its annual Farm Management Plans, is creating a Traceability Programme and has established an Engineering Working Group to contribute to and comment on the creation of policy around

containment structures. No clear progress is evidenced in 2017 (Action A2). Canada’s renewed National Code on Introductions and Transfers of Aquatic Organisms and the National Aquatic Animal Health Program were implemented in 2015 (Action A3). In 2017, there were no known regulatory violations in relation to transgenics. Nova Scotia has implemented a policy that no transgenic salmon will be farmed in their province. To date, no interest from the Newfoundland and Labrador aquaculture industry has been expressed to utilise transgenic species in aquaculture (Action A4).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	CD		
F2	OG-UD	Progress report is unclear. <i>The containment and eradication plan to control the spread of smallmouth bass in Miramichi lake was put in place from 2010 to 2012. Limited progress since then is evident within the report.</i>	
F3	OG		
F4	OG		The provision of enforcement data is a prime example of the type of quantitative information that the Review Group requires to assess effective progress.
F5	OG		Recommendation to ensure reporting of specific progress on the action in the relevant year. The Review Group notes lack of bycatch reporting from the Labrador trout net-fishery.
Habitat Protection and Restoration			
H1	OG		
H2	OG		
H3	OG		
Aquaculture and Related Activities			
A1	OG-UD	Lack of quantitative data to demonstrate progress. <i>It remains unclear whether the international goals for sea lice and containment set out in the NASCO Guidance on Best Management Practices to address Impacts of Sea Lice and Escaped Farmed Salmon on Wild Salmon Stocks, are being achieved and / or</i>	

		<i>whether quantifiable progress is being made.</i>	
A2	OG-UD	Lack of quantitative data to demonstrate progress. <i>It remains unclear whether the international goals for sea lice and containment set out in the NASCO Guidance on Best Management Practices to address Impacts of Sea Lice and Escaped Farmed Salmon on Wild Salmon Stocks, are being achieved and/or whether quantifiable progress is being made.</i>	
A3	CD		
A4	OG		It is understood that an application has been made to grow transgenic salmon on Prince Edward Island but no information relating to this has been included in the APR.

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

Denmark (in respect of the Faroe Islands and Greenland) - Faroe Islands, CNL(18)21

The Implementation Plan identifies only two proposed actions (there are no self-sustaining salmon populations in the Faroe Islands), and the APR provides a clear report on the progress made to address each action in 2017, one of which (Action F1) was completed for the year and the other (Action A1) is ongoing.

There was no salmon fishery at Faroes in the 2017 / 18 season.

Actions related to management of salmon fisheries: In 2015, NASCO’s North-East Atlantic Commission agreed a decision regarding the salmon fishery in Faroese waters in 2015 / 16, 2016 / 17 and 2017 / 18, NEA(15)10. In accordance with this decision, and consistent with the advice from ICES, no salmon fishery took place in Faroese waters in the 2017 / 18 season in order to contribute to the conservation and rebuilding of the Atlantic salmon stocks. (Action F1).

Actions related to habitat protection and restoration: Because of the small size of the Faroese rivers, there is no historic record of any natural wild salmon population in Faroese rivers or fjords. Since there are no self-supporting wild salmon stocks in Faroese rivers, there are no actions in the Implementation Plan relating to habitat protection and restoration.

Actions related to aquaculture and associated activities: A new regulation on sea lice control was adopted in 2016 which sets out strict regulatory control measures in relation to sea lice on salmon farms. Sea lice must be counted every two weeks throughout the year and lice counting must distinguish between different life stages and sizes of lice. The number of mature female lice per fish (threshold) must not exceed 1.5. If exceeded more than three times in a

row, all the fish at the farm must be slaughtered within 2 months. Farms with few lice problems may increase the number of smolts put to sea. Farms with significant lice problems are obliged to decrease the number of smolts put to sea.

In the case of ineffective treatment, other agents / treatments are used. In the event that these also prove ineffective, the authorities can order other action to be taken, including imminent slaughter. Since tightening the legislation, imminent slaughter has been required in several cases and a number of applications to maintain or increase smolt numbers have been denied. However, no quantitative information on the numbers of fish slaughtered is provided for 2017. Breaches of sea lice (*L. salmonis*) threshold levels was highest in 2017 since monitoring began in 2011. The Review Group has concerns about this development and would like to see what remedial action was taken and for this to be reported in future years. Infestation of sea lice, *Caligus elongatus* during summer and fall of 2017 was also unprecedentedly severe and persistent. A number of R&D initiatives are on-going including methods for mapping the spatial distribution of sea lice and *in situ* estimation of nauplii production at farm sites and mapping of lice distribution using hydrodynamic models. Aquaculture companies are also investigating the use of lumpfish to combat lice and several other biological control measures are being considered.

Reporting of escapes is mandatory and farmers are obliged to have a contingency plan in case of escape incidents and to attempt to recapture escapees. Since salmon mortalities are reported on a daily basis, escapes can be indirectly verified through calculation of loss of fish at slaughter. Relatively reliable estimates of escapees are, therefore, available. In 2017 there were three suspected escape events, with one confirmed incident with 109,515 escaped salmon, average size 1.8 kg, caused by a ripped net during a storm (Action A1).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	CD		In light of ICES advice no salmon fishery was conducted in the waters around the Faroe Islands in 2017.
Aquaculture and Related Activities			
A1	OG		<p>The Review Group considers the report for this action to be of high quality. It is clearly written, provides quantitative data on both sea lice and containment breaches, provides comparable data from previous years to highlight trends and has a specified time frame.</p> <p>The Review Group notes with concern that the highest number of breaches of the sea lice threshold was in 2017 and there is a lack of detail concerning the remedial action.</p>

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

European Union - Germany, CNL(18)24

The Implementation Plan identifies seven actions all of which were ongoing in 2017. The APR provides clear and comprehensive reports on the progress made in five of the seven actions. Actions F1 and A1 did not provide clear evidence of progress.

The International Commission for the Protection of the Rhine (ICPR) ‘Master Plan Migratory Fish Rhine’ is being updated and will be published in summer 2018. In 2017 Atlantic salmon were found throughout the River Elbe basin, with the first evidence of salmon redds in the River Pulsnitz for more than 100 years. Additionally, around 20 salmon have been observed in the River Kamenice in the Czech Republic.

No estimate of unreported catch has been provided but it is recognised that bycatch and illegal catches occur but are likely to be at a very low level. Catch and release is not practiced (salmon fisheries are prohibited in the Rhine).

Actions related to management of salmon fisheries: An annual exchange of information among relevant experts on the implementation of ICPR recommendations aimed at improving legal compliance and thus reducing by-catches and illegal catches of salmon by professional and recreational fishing has continued. Dutch authorities have informed that reports of salmon illegally offered for sale on markets are being investigated, but that there is no systematic control of the offer at markets. Recommendations aimed at improving legal compliance and reducing by-catches and illegal catches are again part of the new updated Master Plan Migratory Fish Rhine (Action F1). Stocking of the River Agger ceased in 2015 with a view to developing a self-sustaining salmon population. A three-year monitoring of downstream migrating smolts started in 2017 (Action F2).

Actions related to habitat protection and restoration:

In 2017 good progress has been made in the planning of 46 measures to improve fish passage in seven rivers. The monitoring for 12 fish passes is in progress in three river catchments (Action H1). Partial opening of the Haringvliet sluices in the Netherlands and a new fish pass at the barrage in Gerstheim are scheduled for autumn 2018. A new video monitoring station went into operation on the Ill at the fish pass Erstein (Action H2). Action is on-going to re-establish longitudinal connectivity in the river Elbe and its primary tributaries. The previous International Management Plan (2013-2015) has been updated for the period 2016 - 2021 in accordance with the European Water Framework Directive, and progress has been made on the planning and implementation of measures prioritised, such as the recovery of the fish passage at the weir Kroppen in the River Pulsnitz and weir dismantling in the river Nuthe. (Action H3).

Actions related to aquaculture and associated activities:

Action is on-going with the intention of establishing a separate, locally-adapted indigenous salmon population in North Rhine Westphalia tributaries of the Rhine so as to eliminate the need for foreign ova. Measures to allow an increase in captive breeding at the gene bank facility LANUV NRW are being taken. The Wild Salmon Centre Rhine-Seig operated very successfully but still required some imported material (Action A1). A genetic monitoring programme was launched by the ICPR in 2016 to assign returning adult salmon to their ‘home’ hatchery and thereby identify the most promising stocking strategies. In the winter season

2017 / 2018, a protocol for sampling salmon parent animals for a coordinated genetic monitoring in the Rhine catchment was discussed and procedures were tested in almost all hatcheries providing salmon for stocking. (Action A2).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG-UD	Lack of quantitative data to demonstrate progress <i>It would appear that no specific outcomes were delivered in 2017 based on the information provided.</i>	Reporting timeframe not clearly specified. The time frame is specified in section 1.2 of the report but not in the action itself
F2	OG		
Habitat Protection and Restoration			
H1	OG		
H2	OG		
H3	OG		
Aquaculture and Related Activities			
A1	OG - UD	Reporting timeframe not clearly specified <i>No clear data on the progress towards attainment of local stocking material alone</i> Lack of quantitative data to demonstrate progress <i>Data on proportions of imported versus local stocking material would enable assessment of progress to be determined</i>	Recommendation to avoid the use of annexes and include pertinent data in the text of the report.
A2	OG		

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

European Union - Ireland, CNL(18)31

The Implementation Plan identifies ten proposed actions all of which are on-going. The APR provides clear and comprehensive reports on progress to address eight actions in 2017. The activities that have been reported for actions H2 and H4 are unclear making it difficult to evaluate the progress made.

New legislation came into force in July 2017 that resolved a legal discrepancy to prosecute offences under the Fisheries Acts. The threshold for opening rivers to catch and release has been lowered for 2018 and the rationale for this is unclear.

Actions related to management of salmon fisheries:

Enforcement activities related to illegal fishing are well described including 187,423 hours spent protecting Ireland’s fishing resources in 2017 (Action F1). Catch reporting through the use of national carcass tagging and logbooks remains excellent with 100% of all commercial salmon fishermen making a catch return in 2017 and 68.6% of recreational anglers returning logbooks in 2016 (the most recent year for which data are available (Action F2). A national reporting mechanism for fish counter data and validation has been in place since 2014.

Information from 30 counters was used to inform the 2017 assessment and 2018 stock forecast (Action F3).

Actions related to habitat protection and restoration:

The APR indicates that Ireland faces major challenges to achieve water quality targets set for 2021 and 2027 as required under the Water Framework Directive. A recent publication by the Environmental Protection Agency found that improvements in water quality that were planned under the first river basin management cycle have yet to be realized (Action H1). Environmental requirements for afforestation were published in 2016 (e.g., buffer zone specifications; Action H2). Efforts to improve wastewater treatment are ongoing and in recent years 86 wastewater projects have been completed with 25 projects currently in progress; though further investment is required (Action H3). The APR indicates that stringent action is being taken by the Irish authorities to enforce Treatment Trigger Levels (TTLs) for sea lice, including accelerated harvests and early fallowing of sites, but no quantitative information has been provided (Action H4).

Actions related to aquaculture and associated activities:

In 2017, one report was received of 20,000 fish escaping in a single incident. Separately, in the west of Ireland, anglers reported catching suspected farm-origin salmon. The ensuing investigation revealed that all 34 salmon sampled that were suspected of being escapees were confirmed as such through scale analysis and genetic analysis (Action A1). While no information on sea lice levels is yet available for 2017, information from 2016 (also reported in the 2017 APR) reveals that 84% of one-sea winter fish sampled were below treatment trigger levels (Action A2). There were no outbreaks of listed diseases in 2017 (Action A3).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG		
F2	OG		
F3	OG		
Habitat Protection and Restoration			
H1	OG		
H2	OG-UD	Progress report is unclear <i>No progress in 2017 appears to have been reported</i>	
H3	OG		
H4	OG-UD	Lack of quantitative data to demonstrate progress <i>No progress in 2017 appears to have been reported</i>	
Aquaculture and Related Activities			
A1	OG		
A2	OG		
A3	OG		

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing - no progress; OG-UD = Ongoing - unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

European Union - Sweden, CNL(18)25

The Implementation Plan identifies eighteen proposed actions, five of which are complete and thirteen are on-going. The APR provides clear information on the progress made to address thirteen of the actions in 2017. However, there appears to have been little or no progress on Actions F8 and F9, and Actions H3, H4 and H5 in 2017.

Catches of salmon have been insignificant on the Swedish coast over the 2015-2017 period due to a ban on the use of gill nets in deeper coastal waters and a restricted licensing system. Therefore, the extent of mixed-stock fishing on the coast is now insignificant with no salmon reported in the commercial catch in 2017. A bag-limit for non-commercial fishermen using rod and line is also in place.

Actions related to management of salmon fisheries:

Legal commercial fishing for salmon on the coast has been prohibited since 2014 and catches were insignificant in 2017. There is a ban on gill nets with only occasional catches of salmon in gillnets by non-commercial fishermen. Angling pressure has decreased in rivers due to voluntary restrictions on fishing periods and use of bag limits (Action F1). Commercial mixed-stock fishing no longer takes place on the coast. However, very small numbers of salmon may be caught in gill nets and with rod and line by non-commercial anglers. The presence of large fishing protected areas at river mouths and a ban on coastal fyke net fishing for eel has ensured that any by-catch of salmon is negligible. However, there is still a mixed-stock fishery in the two major rivers due to releases of reared salmon in the main watercourse and natural smolt production in tributaries. The proportion of wild fish caught as 'by-catch' is estimated to be 2% in the River Lagan and 25% in the Göta älv (Action F2). Fin clipping of reared salmon and trout has continued in 2017 and allows wild and reared salmon to be distinguished. During the period 2000 - 2017 the average number of marked reared salmon smolts released annually has been approximately 170,000 (Action F3). A report on genetic screening for 18 of 23 salmon stocks in Sweden was published in 2017. The results showed that the 18 salmon rivers studied could be divided into two larger stock complexes, a northern and a southern. This action is described now as being completed (Action F4). The efficiency of traps on the River Högvadsån have been evaluated and the results have been used to establish Biological Reference Points (Action F5). Conservation limits and Management Targets have been set for the index river and a process was developed in 2017 for transporting these targets to other rivers. This action is now described as being complete (Actions F6). Establishment of in-river exploitation levels, through tagging / returns & catch and effort statistics has only been carried out in the index river. Preliminary results indicate an exploitation level of 30%, which will be verified in 2018 (Action F7). Reporting of catch statistics is compulsory only for commercial fishermen. A national plan for the future conservation and management of salmon and sea-running brown trout was developed in 2015 and included the requirement to obtain high quality data from the non-commercial fishery, including use of salmon-tags. A decision on implementation of the plan has not yet been taken (Action F8). While it has been decided not to introduce restrictions on landing large fish to reduce over-exploitation of MSW in rivers, voluntary restrictions have been implemented in some rivers. In some rivers classified as having reduced reproductive capacity in 2017, fishing is restricted or prohibited (Action F9). The number of sites being monitored for salmon parr recruitment had decreased in recent years but in 2017, the monitoring programme increased with an additional 20 sites added (Action F10). Fish management units have already been formed in many rivers but a need for management units in smaller rivers and in some parts of the larger rivers has been identified. Information exchange and discussions with river managers and land owners are on-going. The catch of salmon in rivers without management units is generally low (Action F11).

Actions related to habitat protection and restoration:

All salmon rivers and their tributaries with salmon that require liming are presently included in a liming program. Generally, the goal of keeping pH above 6 and labile aluminium at non-toxic levels has been achieved. A recent study showed that the frequency of acid episodes has declined exponentially in limed rivers and as a consequence, the ecological status of the fish fauna has reached that of fish in neutral reference rivers (Action H1). A report on compiling the findings of habitat surveys indicates that available habitat has increased by 16% since 1991 mainly due to new fishways, liming operations and habitat improvement. Habitat mapping was required to set conservation limits and spawning target. This action is now completed (Action H2). A plan for continued habitat restoration in salmon rivers started in 2015 but no report on progress was provided for 2017 (Action H3). Criteria for best available technology (BAT) for hydropower generation were established in 2015 but a final report has not yet been published due to ongoing discussions with hydropower companies (Action H4). Work in establishing criteria and a work plan for surveillance of hydropower plants requires action (Action H5).

Actions related to aquaculture and associated activities:

Annual monitoring of rivers for the presence of *G. salaris* was undertaken as planned. Measures have been undertaken to avoid spreading the parasite, e.g. a ban on stocking salmonid fish in the catchments of uninfected rivers. A report on the presence of *G. salaris* in Swedish rivers was compiled in February 2017 (Action A1). Since the completion of the genetic baseline (action F4), work has intensified in identifying escaped salmon on the largest river River Göta älv where studies have shown different proportion of escaped salmon in different years. Preliminary results have shown that escaped salmon are not from the Swedish west coast or the Baltic sea. Comparison of samples with farmed salmon is planned for 2018. (Action A2).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG		
F2	OG		
F3	CD		
F4	CD		
F5	OG		
F6	CD		
F7	OG		
F8	OG-NP	No progress has been made in the reporting year in the reporting year	Reporting is clear
F9	OG-UD	Progress report unclear <i>Insufficient evidence for the Review Group to evaluate the reduction of exploitation of MSW fish.</i>	
F10	CD		
F11	OG		
Habitat Protection and Restoration			
H1	OG		
H2	CD		
H3	OG-UD	Progress report is unclear <i>Insufficient information for the Review Group to evaluate in 2017</i>	

H4	OG-NP	No progress has been made in the reporting year in the reporting year	Reporting is clear
H5	OG-NP	No progress has been made in the reporting year in the reporting year	Reporting is clear
<i>Aquaculture and Related Activities</i>			
A1	OG		
A2	OG		

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

European Union - UK (England and Wales), CNL(18)29

The Implementation Plan identifies 12 proposed actions, a number of which are divided into sub-headings. The APR provides clear and comprehensive reports to address the topic areas covered by each action, all of which are on-going.

Across England and Wales, new regulatory measures are being proposed to reduce significantly Atlantic salmon exploitation by commercial net fisheries and recreational anglers.

Actions related to management of salmon fisheries:

Annual assessment of salmon stocks was completed for 2017 (Action F1). Net Limitation Orders (NLO) have once again been reviewed with further reductions for Poole Harbour, the River Ribble among others in England. NLOs on 12 rivers remain unchanged in Wales though mandatory catch and release on all rod and net fisheries across Wales was recently proposed (Action F2). The Northeast Coast beach net fishery is included in the proposed new byelaws to protect salmon stocks in English fisheries and on the Border Esk (border river with Scotland) (Action F3). Further promotion of catch and release angling through voluntary and regulatory means remains a priority with an estimated 11,174 salmon released in 2017 (Action F4). Action F5 seeks to further reduce illegal fishing with reported cases on the Rivers Tyne and Dee, among others.

Actions related to habitat protection and restoration:

The “Keeping Rivers Cool” project, River Basin Management Planning, and regulation of thermal standards are part of an overall strategy to reduce the effects of climate change on salmon (Action H1). Seven barriers to fish migration were eased as part of the River Basin Management Planning process and a suite of new peer-reviewed studies describe the effects of hydroelectric power schemes on salmon and other stream biota (Action H2). In December 2017, the Environment Agency launched a joint abstraction plan with the Department of Environment Food and Rural Affairs (Action H3). Similarly, in June of 2017, the Welsh Government sought public comment on an abstraction reform plan. Integrated catchment management was advanced by the Welsh Government to five projects seeking to minimize diffuse pollution (Action H4).

Actions related to aquaculture and associated activities:

In England, stocking of salmon is no longer permitted in rivers that are designated as Special Areas of Conservation (SAC) or Sites of Special Scientific Interest (SSSI) where salmon is a ‘qualifying feature’. All salmon stocking in Wales is now replaced by alternative conservation measures (Action A1). Action A2 is a broad suite of activities to reduce the spread of aquatic nuisance species; some recent advancements include a new genetic screening tool for *G. salaris* and Invasive Species Week to highlight some of the challenges associated with this threat. In 2017, 132 schemes to address diffuse pollution, physical modification, point-source pollution

and low river flows led to the improvement of 327 km in salmon rivers in England. Similar, but unquantified work, has been carried out in Wales (Action A3).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG		
F2	OG		
F3	OG		
F4	OG		
F5	OG		
Habitat Protection and Restoration			
H1	OG		
H2	OG		For action H2b, data required on the timeframe of delivery would enable the reviewers to assess progress
H3	OG		Whilst the plans produced are recognised as progress there are no clear timescales regarding delivery
H4	OG		It is unclear what has been delivered in 2017 in some instances (H4a, H4d, H4e)
Aquaculture and Related Activities			
A1	OG		
A2	OG		
A3	OG		For Action A3b there is a lack of data on potential impacts on invertebrates and no clear progress is demonstrated for 2017

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

European Union - UK (Northern Ireland), CNL(18)30

The revised Implementation Plan identifies twenty-one actions, 18 of which are ongoing and three have been completed and are reported to have achieved their objective. The revised Implementation Plan is much clearer than the previous version allowing for a very clear and concise APR. The Review Group welcomes the updated Implementation Plan and wishes to

recognize UK (Northern Ireland) for a clear and comprehensive Implementation Plan and APR.

All primary rivers have now been surveyed for salmon habitat and CLs established on them. Commercial salmon fisheries no longer operate in Northern Ireland. Legislation is now in place across Northern Ireland which restrict recreational harvest to only rivers meeting their management targets. A comprehensive report of catch and unreported catch was provided. Catch and release estimates vary between the DAERA area and the Loughs Agency area.

Actions related to management of salmon fisheries:

Mixed-stock fisheries in UK (Northern Ireland) have been substantially curtailed in recent year with no mixed-stock commercial fisheries operating in Northern Ireland in 2017 (Action F1). Recreational fisheries are managed in light of scientific advice with four salmon rivers opened with harvestable surplus in DAERA area in 2017 and in the Loughs Agency area all rivers were opened with a harvestable surplus in 2017 except the River Finn (cross border catchment) which remains as catch and release (Action F2). Multi-sea winter (MSW) salmon stocks are protected with mandatory catch and release in much of the Loughs Agency area and mandatory catch and release of salmon in the DAERA area before June 1 (Action F3). All primary salmon rivers in NI have been surveyed (habitat assessment) and conservation limits established (Action F4). Long term monitoring of the River Bush continued in 2017 (Action F5). A tagging and marking program (Action F6) identifies reared salmon for incorporation into captive breeding programs. Ninety-nine wild smolts from the River Bush were acoustically tagged in 2017 as part of the EU / NASCO Smoltrack project (Action F7). Digital licensing for recreational fisheries is fully online beginning in 2017 for the DAERA area (Action F8). Juvenile index monitoring occurred in 2017 in both the Loughs Agency area and the DAERA area (Action F9). Routine enforcement activities revealed 31 illegally captured salmon taken in the Loughs Agency area (Action F10).

Actions related to habitat protection and restoration:

Forty-one inspections were carried at hydro-electric dams to ensure compliance with fishery regulation within the DAERA area (Action H1). Fisheries advice was provided on the proposed works to ensure protection of fish stocks and habitat in 2017 in both the DAERA and Loughs Agency areas (Action H2). Preliminary information on water quality surveillance and enforcement reveal 7 incidents of fish kills requiring follow up action by the Northern Ireland Environment Agency (Action H3). Under action H4, a weir was removed in the Colin River in 2017. Oversight of construction activities and routine surveillance protected salmon habitat from illegal removal river bed materials (Action H5). All primary salmon rivers in the DAERA and Loughs Agency areas have now been surveyed (Action H6). In-river habitat enhancements were carried out on the Glenshesk, Clady, and Ballinderry Rivers (Action H7).

Actions related to aquaculture and associated activities:

The River Bush is extensively monitored for sea lice levels (Action A1) and potential aquaculture escapees (Action A2). Sea lice levels are also monitored and reported for the one fish farm in Northern Ireland (Action A3). Triennial assessment of potential genetic introgression from aquaculture escapees is slated for 2018 (Action A4).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	CD		
F2	CD		
F3	OG		Reporting timeframe not clearly specified
F4	OG		Reporting timeframe not clearly specified
F5	OG		
F6	OG		Reporting timeframe not clearly specified
F7	OG		
F8	OG		
F9	OG		
F10	OG		
Habitat Protection and Restoration			
H1	OG		Reporting timeframe not clearly specified
H2	OG		
H3	OG		
H4	OG		
H5	OG		
H6	CD		Reporting timeframe not clearly specified
H7	OG		
Aquaculture and Related Activities			
A1	OG		
A2	OG		
A3	OG		
A4	OG		

Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

European Union - UK (Scotland), CNL(18)27

The Implementation Plan identifies 11 actions, a number of which are divided into sub-headings. In 2016, the Review Group requested more detailed reporting on progress against each action in the 2017 APR. While this request was partially met in 2017, the Review Group notes further improvements in the APR in 2018. However, Actions F2b, F3a, F5c to f and F5h did not provide clear evidence of progress. For the evaluation process to work effectively and be fair and equitable, the next Implementation Plan will require clearer actions and more detailed reporting on progress against each action.

The Scottish Government introduced a series of legislative measures to manage exploitation in 2016 to ensure harvesting is sustainable and does not damage vulnerable stocks or the network of Special Areas of Conservation. The killing of salmon in inland waters is managed on an annual basis with mandatory catch and release introduced for those districts (or rivers) where stocks are below their conservation limits. During 2017, further refinements were made to the annual assessment process including more fish counters and local habitat data.

The APR does not provide the catch data requested; the reasoning for this has previously been explained (CNL(14)11). The Review Group remains concerned that this data continues not to be provided in the APR. As in previous years, the Review Group expects a revised APR with catch statistics to be submitted shortly.

Actions related to management of salmon fisheries:

A public consultation on the draft legislation to take forward Wild Fisheries reform, took place in 2016 (Action F1a) and an analysis of the value of wild fisheries in Scotland was published (Action F1b), but no details are provided, other than through web links. Fisheries management plans have been developed through the Wild Fisheries Reform process and a conservation plan template has been developed and distributed to local fisheries managers in order to identify pressures and proposed responses (Action F2a). A review of the salmon counter network and prioritisation of actions is underway with the priority being the potential for counters on SAC rivers (Action F2b). Action F3a appears to duplicate Action F2b. Historic data relevant to the nature of MSFs is being prepared for analysis and tracking of smolts from several rivers (Action F3b) and development of a smolt dispersal model are underway to better understand marine migration routes (Action F3c). Action F4a seeks to improve salmon fisheries and enforcement and reduce illegal fishing. Carcass tagging for net caught fish in category 1 and 2 areas was introduced in 2016 (Action F4b) with a review of the first year of operation conducted in 2017. Implementation of a monitoring strategy for marine renewable energy projects is on-going together with projects to support the aims of the overall strategy (e.g., acoustic and satellite tagging efforts to assess migration risks near turbines; F5a). The Independent Consenting Review of Scottish Aquaculture was published in July 2016 and a response was published in 2017 (F5b). The SARF project remains ongoing (Action F5c). Voluntary industry-led publication of quarterly lice data continues (Action F5d). Sensitivity maps for aquaculture sites are being developed based on conservation status of wild salmon and the potential distance of influence of sea lice (Action F5e). An improved modeling tool for discharge consents has been launched (Action F5f). A report has been published on the Scottish Shelf Model that should inform sea lice dispersal projections (Action F5g). Links to websites are provided for Actions F5h and F5i but no summary information has been provided. It is not clear how the Actions F5b to F5f together with F5h and F5i further NASCO's goals, specifically in the protection of wild salmon.

Actions related to habitat protection and restoration:

Action H1 describes a broad suite of activities under Scotland's Climate Change Adaptation Plans. In 2016, a temperature monitoring network was implemented including spatial modeling components to highlight sensitive areas. National temperature predictions and planting opportunity maps are being produced. Riparian tree planting has been carried out with 7 hectares planted in 2017 (H1c). A barrier assessment programme is underway (Action H2) with four fish passage improvement projects completed in 2017. Action H3 seeks to ensure provision of appropriate flows. The transferability of hydraulic habitat models has been assessed and models produced that can be applied to salmon fry. Research and reviews are ongoing in relation to implementing the RBMP process and issue of controlled activity regulations (CAR) licences for abstraction but no details are provided. An integrated catchment management approach is being conducted to reduce the impact of land use with farm visits, but quantitative information is lacking (Action H4).

Actions related to aquaculture and associated activities:

Scotland continues to regulate stocking of fish in its waters with 349 licenses issued in 2017 (Action A1). Progress on Action A2 (implementation of EC Council Regulation 708/2007 concerning Use of Alien and Locally Absent Species in Aquaculture and encouraging water

users to remain vigilant to the risks of non-native species and pathogens and report sightings) remains unclear although the *G. salaris* contingency plan is being updated. Action A3 is intended as a wide-ranging action concerning the implementation of the Aquaculture and Fisheries Act of 2013. The APR indicates that the Ministerial Group for Sustainable Aquaculture seeks to ensure that any growth of aquaculture in Scotland is sustainable, but no further details are provided other than a reference to establishment of an Aquaculture Industry Leadership Group in 2017.

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1a	OG-NP	Reliance on references to websites or publications <i>A summary of the public consultation, including measures of progress would have been beneficial to enable full review</i>	It is not clear how this action furthers NASCO's goals, specifically in the protection of wild salmon.
F1b	OG		A brief summary in the text of the APR report, with some headline figures, is required
F2a	OG		Specifying timeframes is advised
F2b	OG-UD	Reporting timeframe not clearly specified <i>The timing of progress under this action is unclear</i>	
F3a	OG-UD	Reporting timeframe not clearly specified <i>The timing of progress under this action is unclear</i>	This duplicates F2b
F3b	OG		
F3c	OG		The time period in which the models have been produced is unclear
F4a	OG		It is not clear what was done in 2017
F4b	OG		
F5a	OG		
F5b	OG		It is not clear how the Aquaculture Industry Leadership Group (AILG) fits into NASCO's goals, specifically the protection of wild salmon. It is not clear how the Scottish Government's response to the Independent Consenting Review of Scottish Aquaculture furthers NASCO's goals, specifically

			in the protection of wild salmon.
F5c	OG-UD	Lack of quantitative data to demonstrate progress	It is not clear how this action furthers NASCO's goals, specifically in the protection of wild salmon.
F5d	OG-UD	Lack of quantitative data to demonstrate progress	It is not clear how this action furthers NASCO's goals, specifically in the protection of wild salmon.
F5e	OG-UD	Lack of quantitative data to demonstrate progress	It is not clear how this action furthers NASCO's goals, specifically in the protection of wild salmon.
F5f	OG-UD	Lack of quantitative data to demonstrate progress	It is not clear how this action furthers NASCO's goals, specifically in the protection of wild salmon.
F5g	OG		
F5h	OG-UD	Lack of quantitative data to demonstrate progress	It is not clear how this action furthers NASCO's goals, specifically in the protection of wild salmon.
F5i	OG		
<i>Habitat Protection and Restoration</i>			
H1a	OG		
H1b	OG		
H1c	OG		
H1d	OG		
H1e	OG		
H1f	OG-NP	No progress has been made in the reporting year	Reporting is clear
H2a	OG		
H2b	OG		
H3a	OG		
H3b	OG		
H4	OG		No quantitative information provided, therefore it is difficult to assess progress
<i>Aquaculture and Related Activities</i>			
A1	OG		It is unclear whether further licences were issued by District Salmon Fishery Boards or the River Tweed Commission
A2a	OG		
A2b	OG		
A3	OG		The Review Group remains concerned that the description of the action in A3 may no

			<p>longer be relevant in light of information presented at the NASCO Annual Meeting Special Session 2016. In particular, it is unclear how Action A3 advances the attainment of NASCO's goals, specifically in the protection of wild salmon</p> <p>It is not clear how the Aquaculture Industry Leadership Group (AILG) fits into NASCO's goals, specifically the protection of wild salmon.</p> <p>It is unclear whether the technical standards for finfish aquaculture are being regulated.</p> <p>It is unclear how the implementation of Action A3 was managed effectively, particularly with reference to quantitative data on the regulation of sea lice and escapes</p>
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Key: NS = Not Started; OG = Ongoing - clear progress; OG-NP = Ongoing – no progress; OG-UD = Ongoing – unable to determine progress; CD = Completed - clear progress; CD-NP = Completed - without clear progress

Norway, CNL(18)22

The Implementation Plan identifies 12 planned actions and 11 are described as ongoing while one action is completed. The APR provides a clear report on measures to address the majority of actions although no clear quantified progress was evident for Actions F3 and A2.

148 salmon populations were classified according to the National Quality Norm for Wild Salmon. The classification includes nearly all of the most important Norwegian salmon rivers, representing 83 % of the total combined Norwegian spawning target and 86% of annual reported catches in the river fisheries. Management targets, based on spawning target attainment alone, were achieved for 120 of the 148 classified stocks in the period 2010 - 2014. However, only 29 of the 148 stocks reached the goal *good* or *very good* quality according to the norm, 42 stocks had moderate quality, and 77 stocks were classified as poor or very poor. 67 stocks did not reach the goal for the *Conservation limit attainment and harvest potential dimension*. 97 stocks did not reach the goal according to the *Genetic integrity dimension*. For 45 of the stocks the status was worse than good for both dimensions. With the goal of improving the status of the stocks, an action plan where impacts on the stocks are assessed and relevant measures identified is in preparation. The catch and release rate for 2017 was recorded at 13%.

Actions related to management of salmon fisheries:

In 2016, out of 186 salmon stocks with sufficient information, management targets were achieved in 87% of stocks. In response to the scientific advice, new regulatory measures were introduced for sea and river fisheries in 2016. In 2017, the Norwegian Scientific Committee for Atlantic Salmon Management (SACAS) assessed that out of 190 salmon stocks with sufficient information, managing targets were achieved in more than 80% of them (Action F1). Regional authorities keep close contact with local managers to ensure pre-agreed measures are put into force in accordance with the outcome of mid-season assessments of the fishery and salmon run. In 2017 digital catch reporting for sea-fisheries was introduced with 35% of participants reporting. Legislation is now in place to implement mid-season reporting for sea-fisheries (Action F2). A report describing progress on a new method for calculation of spawning targets is in preparation, but no clear timeframe is given for 2017 (Action F3). A new bi-lateral agreement on a revised management regime for the River Tana was accepted by the parliaments in Norway and Finland in March 2017. The revised regulatory regime, aiming to reduce exploitation by c. 30% was implemented in 2017. A system of monitoring, annual evaluation of target attainment and bilateral contact to discuss stock status and possible revision of fishing regulations, was also implemented in 2017 (Action F4).

Actions related to habitat protection and restoration:

At present, 22 Norwegian salmon rivers are included in the national program for river liming. In rivers where stocks have been lost due to acid rain, stocks are re-established and now account for 10 - 14% of total salmon catch in Norwegian rivers. The funding is provided by the Norwegian Government, at a cost of 60 mill NOK (\approx £5.5 mill) in 2017 (Action H1). Revision of licence conditions and rules of operations for hydropower plants were addressed in 8 river systems in 2017. There are also 41 different revisions ongoing, in both anadromous and non-anadromous water courses (Action H2). The road authorities removed 14 migration obstacles for salmon and sea trout in 2017. A new program of measures as part of the implementation of EUs Water Framework Directive to reduce or remove barriers caused by roads in prioritized rivers will be in operation in 2018 (Action H3). To avoid further negative impact from habitat deterioration on salmon nursery habitat, measurements to improve the ecological conditions for anadromous salmonids have been carried out in the rivers Alta (relocation of embankments due to a flood in 2013) in northern Norway, Bævra (reconstruction of weirs to enhance conditions for upstream migrating salmonids) in Central Norway and Aagaardselva (improvement of spawning areas) in Southern Norway (Action H4).

Actions related to aquaculture and associated activities:

Salmon farming production in marine salmon farms is regulated based on the effects of sea lice on wild salmon stocks. Based on the results of monitoring in 2016 and 2017, production areas in North and Central Norway were allowed a 6% increase in farm salmon production. Research on and modelling of how juvenile sea lice from salmon farms affect wild salmonids will be continuously refined (Action A1). In an effort to reduce genetic and ecological threats to wild salmon populations, research licences are currently using triploid fish and several commercial salmon-farmers have started using triploid fish in “green” salmon farm licenses. The national program for monitoring escaped salmon is ongoing and a field handbook has been developed to standardize the various method used. Based on the polluter pays principle, salmon farmers have been given more responsibility for funding and organizing monitoring and recapture of escaped farmed salmon both in salt- and freshwater. Several projects are attempting to identify escaped salmon back to the escape site including tracking by use of DNA methods. However, it is difficult to assess the progress for 2017 given the lack of quantitative data included in the report (Action A2). Efforts to combat the parasite *G. salaris* in five infected rivers in the Rauma region started in 2014. After three years of surveillance, the parasite was not recorded

in this region. The two infected rivers in the Skibotn region were treated in 2015 and 2016 and no *G. salaris* parasites were detected in this region in 2017. A long-term fish barrier was completed in the River Driva in winter / spring 2017 to prevent the spread of the parasite. In 2017, 10 rivers were declared free of *G. salaris* in Norway (Action A3). In 2017, there was a large increase in the incidence of pink salmon recorded in rivers along the entire Norwegian coast and a register was established to document the extent of pink salmon incursion in rivers. In total, 6170 pink salmon are recorded in catches in 2017 and 5285 pink salmon are observed by counts and camera surveillance. Measures were taken to remove pink salmon in several rivers in 2017 and a surveillance programme has been established to identify self-sustaining pink salmon populations in rivers. (Action A4).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG		
F2	OG		
F3	OG-UD	Reporting timeframe not clearly specified. <i>It is noted that a report is being prepared but preparation and completion are not specified for 2017.</i>	
F4	CD		
Habitat Protection and Restoration			
H1	OG		
H2	OG		
H3	OG		
H4	OG		
Aquaculture and Related Activities			
A1	OG		
A2	OG		Lack of quantitative data to demonstrate progress. Quantitative data in the APR related to escapees would aid a proper assessment of progress on this action
A3	OG		
A4	OG		

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Russian Federation, CNL(18)26

The Implementation Plan identifies nine actions, seven of which are on-going and two (Actions F2 and F4) are completed. The APR reports the progress made to address seven actions in 2017. Little information is provided to demonstrate progress on Actions F3 and A2. In general, there is a lack of adequate quantitative information to demonstrate progress against many of these Actions (F1, F2, H2, A1 and A2). For the evaluation process to work

effectively and be fair and equitable, the Review Group will require more detailed, quantitative, reporting on progress against each action in the third round of implementation plans.

During the salmon spawning run in 2015, a mass mortality of salmon was observed in the Kola River, Murmansk region, caused by Ulcerative Dermal Necrosis (UDN). In 2016, mortality attributed to UDN was again observed in the Kola River and in 2017, 14.5% of salmon counted at the fish fence on the Kola River were recorded with UDN. Salmon were also recorded with UDN at the fish-trap of the Lower Tuloma fish ladder in 2017. The introduction of the parasite *Gyrodactylus salaris* to the salmon rivers Pak and Shovna (Murmansk region) was confirmed in 2017. It's believed that the introduction of parasite was caused by transfers of rainbow trout to the cage-aquaculture farms in the area. As in previous years, no estimate of unreported catch has been provided for 2017. 72% of the recreational catch was released in 2017.

Actions related to management of salmon fisheries:

Since first reporting levels of unreported catch in 2014 for some areas, no further estimates of unreported catches were available for 2017. In an effort to reduce the level of unreported catch, recreational catch-and-take fisheries for salmon were closed in some fishing sites of the Varzuga and Kola rivers and “no fishing” periods for coastal, in-river commercial and recreational fisheries were put in place for the 2017 season. Protection patrols in rivers, lakes and coastal areas were undertaken to prevent illegal fishing (Action F1). A comprehensive genetic baseline for Atlantic salmon populations has been established through the Kolarctic Atlantic Salmon project (2011 - 2013) and has been used in establishing fishing regulations for anadromous fish. In 2017, quota allocations for coastal salmon fisheries in the White Sea were made on the basis of data on salmon stock contributions to the fisheries (Action F2). Conservation limits have been set for salmon stocks in the Murmansk region and were revised in 2016. In the Arkhangelsk region and the Nenets Autonomous Region, conservation limits have been set for exploited salmon stocks. No conservation limits have been established in the Republic of Karelia. There is no update on this action for 2017 (Action F3). Clearer legislation was introduced in 2015 to manage the fisheries conducted by indigenous small nations of the North. In 2017, salmon quotas were set for Sami communities in the Murmansk region (Action F4).

Actions related to habitat protection and restoration:

The carrying capacity of some Barents Sea rivers of the Murmansk region was revised in 2016 on the basis of new data from spawning and nursery grounds mapping. In 2017 “The inventory of salmon rivers of the Murmansk region. The White Sea basin” was prepared for publication. A study to estimate salmon habitat and productive capacity of salmon rivers in the Republic of Karelia began in 2017 (Action H1). Recommendations on habitat restoration were updated for a number of salmon rivers in the Murmansk region and developed for the Arkhangelsk region and for the Republic of Komi in 2017. No detailed habitat protection and restoration plans have been developed for specific rivers (Action H2).

Actions related to aquaculture and associated activities:

The Federal Law on aquaculture came into force in 2014 and no new amendments were introduced in 2017 regarding anadromous fishes. No by-law regarding management of sea lice in aquaculture has been developed. However, in accordance with the current rules on veterinary control, the regional veterinary authority inspects salmon farms quarterly to check for diseases and parasites (Action A1). The introduction of the parasite *Gyrodactylus salaris* was confirmed in the Pak and Shovna rivers in 2017 in the basin of the Lower Tuloma Reservoir (Murmansk region). It is believed that the introduction was caused by transfers of rainbow trout

to the cage-aquaculture farms in the reservoir. Measures to prevent the spread of *G. salaris* were undertaken under the veterinary regulations for live fish, eggs and crayfish transfer. In 2017 live fish transfers were restricted from the region of Leningrad and from the Republic of Karelia into the Murmansk region and recommendations were made to ban the development of new aquaculture sites in the Lower Tuloma Reservoir. Some recreational fishing companies in the Murmansk region implement voluntary programmes to prevent the spread of the parasite on fishing equipment, tackle, etc. by use of approved disinfection methods. In the light of the confirmed introduction of *G. salaris* into two rivers in the Murmansk region, it is still of concern that no obligatory measures to prevent the introduction or further spread of the parasite through recreational fisheries have been developed (Action A2). A comprehensive scientific evaluation is required prior to any introduction of aquatic species and no movements originating from outside the North-East Atlantic Commission area of reproductively viable non-indigenous anadromous salmonids or their gametes has occurred in 2017 (Action A3).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG		
F2	CD		
F3	OG - UD	Progress report is unclear <i>There appears to be no update on this action for 2017</i>	
F4	CD		
Habitat Protection and Restoration			
H1	OG		
H2	OG		
Aquaculture and Related Activities			
A1	OG		It is unclear whether any byelaws have been enacted since the federal law entered into force on January 1 2014.
A2	OG		No clear additional action in 2017 with respect to recreational fisheries
A3	OG		

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United States of America, CNL(18)23

The Implementation Plan identifies eleven actions, ten of which are described as ongoing and one action is completed. The APR provides a clear and comprehensive report on the progress made to address the planned actions in 2017 with the exception of Actions A3 and A4.

There were no new factors which would significantly affect the abundance of salmon stocks in the United States in 2017. Provisionally, adult returns to U.S. waters in 2017 were 1,041.

Actions related to management of salmon fisheries:

In 2017, the US participated in the intersessional meeting of the West Greenland Commission and continued to facilitate sampling in the West Greenland fishery (Action F1). The APR indicates that there are stringent and extensive regulations governing recreational fishing for other species in salmon habitats. Fishing regulations explain that sea-run salmon are federally endangered and cannot be removed from the water. Anglers are also prohibited from retaining landlocked salmon and brown trout above 25 inches in about 40 specific waters to ensure that adult sea-run salmon are not incidentally captured and retained. A comprehensive conservation plan applicable to the entire freshwater range of endangered Atlantic salmon has not yet been developed (Action F2). For 2017, query of the dealer purchases database revealed 67 pounds of salmon being sold which is likely to be a reporting error and no record of Atlantic salmon were reported from the vessel landings database. For the observer database, bycatch of Atlantic salmon remains a rare event and no Atlantic salmon have been observed since 2013. (Action F3).

Actions related to habitat protection and restoration:

In 2017, 21 additional aquatic connectivity projects were completed within the freshwater range of endangered salmon in Maine resulting in over 32 miles of stream being made accessible. In southern New England, there were also several dam removals in tributaries of the Merrimack River that may benefit salmon and other sea-run fish. The Bradford Dam removal was part of a broader strategy to improve connectivity on the Pawcatuck River that has now resulted in total of 31 miles that are now accessible to migratory fishes (Action H1). A summary of recent enforcement actions in Maine pursuant to the Clean Water Act reveals fines totalling approximately US\$400,000. There were no new enforcement actions made public in 2017 (Action H2). Consultations continued in 2017 among federal agencies where their activities occur in or near areas where Atlantic salmon Essential Fish Habitat (EFH) is designated. Ten conservation recommendations were issued which may include measures to avoid, minimise or mitigate or otherwise offset adverse effects on salmon habitat. In many instances, EFH conservation recommendations are not necessary because project proponents are already proposing best management practices to reduce impacts to the maximum extent practicable (Action H3). Under the Endangered Species Act, the United States has designated critical habitat for Atlantic salmon. NOAA and the US Fish and Wildlife Service conduct consultations with other federal agencies that require all federal agencies to ensure that any action they undertake or fund does not prevent the survival and recovery of endangered Atlantic salmon. In 2017, the U.S. Fish and Wildlife Services (USFWS) completed 66 consultations and NOAA completed 22 consultations for projects within designated Critical Habitat were completed and resulted in changes to actions to reduce incidental mortality of endangered salmon (Action H4).

Actions related to aquaculture and associated activities:

Monitoring continued regarding compliance with protective measures in place within the US salmon farming industry. The current status of active farm sites in Maine shows all sites are in full compliance with the required permit conditions. There were no reportable escape events in 2017. In 2016, two aquaculture escapees were reported, one in the Dennys River and one in the Penobscot River. Tissue samples were collected from 0+parr in the Dennys River in the vicinity of known redds and potential introgression of escaped farmed salmon is being investigated (Action A1). The Northeast Fish Health Committee annually reviews the fish health status of the Northeast states and have developed regional guidelines that enable state resource agencies to prevent the importation or transfer among member states of fish infected with listed pathogens of concern. In 2015, revisions to the existing fish health guidelines were

completed and have been unanimously accepted (Action A2). Broodstock management protocols have been implemented at conservation hatcheries to maintain genetic diversity of the hatchery stock rebuilding program. Estimates of genetic diversity are used to monitor if genetic diversity within seven broodstock populations is being maintained over time. Estimates compared over time within a broodstock and between broodstocks indicate that similar levels of diversity are present in each broodstock. The results of monitoring are presented (Action A3). Many salmon rivers are no longer stocked with exotic species such as brown trout and rainbow trout. There is not yet a comprehensive conservation plan for Atlantic salmon regarding the stocking of salmonids to support recreational fisheries. There is, however, progress in curtailing stocking of non-native salmonids in salmon rivers. For example, in Maine, stocking locations of non-native salmonids will be spatially segregated from areas that are actively managed for Atlantic salmon (Action A4).

Action No	Status of Action	Explanation of shortcoming as to why progress is unsatisfactory	Comments / Recommendations
Management of Salmon Fisheries			
F1	OG		
F2	OG		It would support the Review Group's assessment if quantitative data were available to demonstrate that the regulatory measure is being effective.
F3	OG		
Habitat Protection and Restoration			
H1	OG		
H2	OG		
H3	OG		
H4	OG		
Aquaculture and Related Activities			
A1	OG		
A2	OG		
A3	OG-UD	Progress report is unclear <i>Insufficient information for the Review Group to evaluate in 2017 (text provided for this action is the same as 2016)</i>	
A4	OG-UD	Progress report is unclear <i>Insufficient information for the Review Group to evaluate in 2017 (text provided for this action is the same as 2016)</i>	

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