Agenda item 7.1
For information/decision

Council

CNL(08)15

Annual Reports on Implementation Plans

CNL(08)15

Annual Reports on Implementation Plans

SUMMARY

1. Under the Council's 'Guidelines for the Preparation of NASCO 'Implementation Plans' and for Reporting on Progress', NSTF(06)10, it is stated that the Annual reports by the Parties should provide the following information:

    - a statement of any significant changes to the management outlined in the introduction to the plan;
    - a description of significant changes to the status of stocks and information on catches;
    - a description of new factors which may affect the abundance of salmon stocks;
    - an account of actions taken under the four headings in Section 4 (fisheries, habitat, aquaculture etc and other influences) of the Implementation Plan including:
        - adoption or repeal of laws, regulations and programmes or any commitments to such measures including measures for homewater fisheries and their expected effects;
        - reports required under Article 14;
    - proposed revisions to the Implementation Plan.

2. In accordance with these guidelines a format for return of this information was developed and sent to the Parties with a request that it be completed by 7 April. At the time of preparation of this report, returns had not been received for several EU Member States with salmon interests (France, Germany, Spain and Portugal). The returns received are attached. It is stated in the guidelines that the primary purpose of the annual reports is to provide a summary of all the actions that have been taken under the Implementation Plan in the previous year. The Implementation Plans were only finalised in February this year so it is to be expected that there would have been very limited progress to report to date. Furthermore, there may be some overlap between information presented in the Focus Area reports and in the Annual report. A detailed progress report on each of the actions in the Implementation Plan was, however, provided by EU – UK (England and Wales). One approach to future reporting might be to move away from a specified format, as used for returns in the past, and to highlight the information required in the annual progress report in accordance with the guidelines. It would be helpful to have feedback from the Parties on how the reporting process might be improved in future. A brief summary of the returns is provided below.

Changes to the Management Regime in the Introduction to the Implementation Plan

Effort in the Loughs Agency (European Union – Northern Ireland) commercial fishery was significantly reduced in 2007.

In the US, five factors are identified that may result in changes to the Implementation Plan as follows:

- possible changes in 2008 to the boundaries or conservation status of the existing Gulf of Maine Distinct Population Segment listed under the Endangered Species Act;
- designation of critical habitat in 2008;
- changes to the management entities following establishment of the Bureau of Sea Run Fisheries and Habitat;
- finalisation of a new Atlantic Salmon Recovery Framework;
- authorisation of a spring catch and release fishery on the Penobscot river.

Changes in Stock Status, Catch Statistics, Unreported Catches, Catch and Release

In Ireland, where information is available, there has generally been a doubling of run size in the absence of the mixed stock fisheries. In Northern Ireland the percentage compliance with conservation limits generally increased in 2007 compared to 2006. At a national aggregate level the estimated number of spawners increased from approximately 27,000 fish to more than 102,000 fish. Marine survival to the River Bush appears to have increased in 2007. Conversely in Norway the 2007 grilse escapement was generally unusually small and the mean weight was low.

For the North Atlantic Ocean, the Provisional 2007 catch was 1,530 tonnes, approximately 25% lower than in 2006 and the lowest in the forty-eight year time-series although there have been enormous effort reductions all around the North Atlantic. The estimated unreported catch in 2007 was 360 -576 tonnes. Catch and release continues to increase and in 2007 approximately176,000 salmon were returned to the water after capture an increase from 154,000 fish in 2006.

New factors significantly affecting the abundance of salmon stocks

In England and Wales the closure of the Irish drift net fishery in 2007 should mean that 5,000 more grilse returned to English and Welsh homewaters representing a 4% increase overall. Rivers in the south and west of England and Wales are expected to have benefitted the most.

In Northern Ireland, the Loughs Agency mixed stock drift net fishery seaward of Lough Foyle has ceased and the preliminary results of habitat improvements on three rivers indicate a significant increase in salmon abundance at many of the sites. Additional work is being undertaken.

In Norway, it is reported that global warming and increasing water temperatures will require increased awareness of new diseases and warm water diseases. In 2007 there was an outbreak of VHS in a fjord in central Norway and outbreaks of two viral diseases (pancreas disease and heart and skeletal muscle inflammation (HSMI)) in the last five years are a considerable concern.

Management actions in relation to fisheries, habitat, aquaculture and other influences

In Canada a new Bill had its first reading in November 2007 but no details were provided. Canada met bilaterally with France and was advised that no decision has been taken as to whether France would accede to the Convention on behalf of St Pierre and Miquelon.

In Ireland new regulations, orders and byelaws were introduced including those setting quotas, and bag limits, requiring catch and release in specified rivers and prohibiting angling in rivers not meeting their conservation limits.

In England and Wales a number of new net limitation orders were introduced, and compensation arrangements with netsmen continued. For England and Wales a report on progress on each of the actions documented in the Implementation Plan has been provided. The report for England and Wales comprehensively summarises the progress made to date on each action identified in the Plan.

In Northern Ireland, regulation to improve the use of nutrients on farms and consequently improve water quality were introduced; a contingency plan for dealing with outbreaks of *G.salaris* has been developed; the Loughs Agency mixed stock fishery was ended by regulation; and a new licensing scheme for water abstraction and impoundment was introduced.

In Scotland, a new Aquaculture and Fisheries Act, and baits and lures regulations and an order were introduced but no details were provided.

In Sweden, a control zone for VHS ceased after four years without detecting the disease.

In Norway a new eradication programme for *G.salaris* began in the Steinkjer Region but due to weather conditions and technical difficulties further treatments will be needed. Treatment of the River Laerdal in 2005 and 2006 were unsuccessful and new treatments are planned for 2008 and 2009. A new monitoring programme for *G.salaris* was also adopted. Sea lice levels in salmon farms in parts of Norway are still considered to be too high. In 2007 there was no further action in relation to the cryopreservation of milt for the gene bank which contains material from 169 stocks. A further 22 stocks are preserved in the living gene banks. New measures for the conservation of wild salmon were also adopted including continuation of the liming programme, measures to eradicate *G.salaris*, and inclusion of an additional 15 rivers and fjords in the National Salmon Rivers and Fjords Scheme. A new proposal for a revised National Plan of action against sea lice on salmonids has been developed, a new mandatory de-lousing strategy has commenced and the level at which de-lousing is required has been reduced to 0.25 mature female lice per fish. Worryingly, resistance to sea lice treatments was detected at four fish farms in Norway.

In Russia, territorial directorates of the State Committee on Fisheries were established and charged with protecting the stocks of anadromous fish, controlling and enforcing the legislation and other tasks relating to fisheries management. On 1 January 2008, amendments to the Federal Law on 'Fisheries and conservation of aquatic biological resources' which defines the requirements for harvesting anadromous fish entered into force. New fisheries regulations for the Northern fisheries basin were adopted in 2007 which define fishing gear and times of fishing.

Secretary
Edinburgh
27 May 2008

1. *Changes to the Management Regime detailed in the Introduction to the Implementation Plan*

European Union

UK (Northern Ireland)

Effort in the Loughs Agency commercial fishery was significantly reduced by regulations in 2007 from that reported in the introduction to the UK-NI Implementation Plan (section 1.3.2). This is reported in the Focus Area Report on Management of Salmon Fisheries in UK-NI

USA

In 2003 the Services assembled an Atlantic Salmon Biological Review Team (BRT) to review and evaluate all relevant scientific information necessary to evaluate whether the population in the Penobscot River and other rivers should be included in the GOM DPS. The populations in the Penobscot and a few other rivers were not included in the GOM DPS at the time it was listed under the ESA in November of 2000 because there was not enough scientific information at that time to demonstrate that those populations were part of the same DPS or constituted a different DPS. Since the listing in 2000, new information has come to light which indicates that the GOM DPS should be re-evaluated to determine if any other populations should be included because they are closely related. The Draft Status Review was completed in January 2006 and underwent peer review. The Center for Independent Experts (CIE) completed the review and the BRT made revisions to the document based upon this critique. The Status Review was made available to the public during the fall of 2006. NMFS and the USFWS (collectively referred to as the Services) are currently considering the information presented in the 2006 Status Review, the comments from the peer reviewers, and the response of the BRT to the peer reviewers to determine if action under the ESA is warranted. The Services could determine that a change to the boundaries or conservation status of the existing GOM DPS is warranted, that a separate listing action is warranted, or that no action is warranted. If the Services determined that a modification to the existing listing or a new listing was warranted, then a proposed rule will be published along with the rationale for that proposal. A determination regarding the listing status of the expanded GOM DPS is expected in 2008. Any changes to the listing status of the GOM DPS will change the management regime outlined in the Implementation Plan.

The ESA also requires that the Services designate Critical Habitat for all species listed as endangered or threatened. The Services listed Atlantic salmon in the GOM DPS as endangered under the ESA in 2000, however, critical habitat has yet to be designated. Critical habitat is defined as habitat that includes physical and biological features essential to the conservation of the listed species. Critical habitat can be designated in all areas currently occupied by the species, and may be designated in those areas not occupied by the species if those areas are deemed essential to the conservation and recovery of the species. Federal agencies must consult with the Services on any action they permit, fund or carry out that may adversely affect critical

habitat. Currently NMFS is working on developing the source documents that describe the habitat features essential to the conservation of the species as well as those activities that likely affect the identified habitat features. The information in the source document will be used to conduct an economic analysis designed to assess the economic impact that a critical habitat designation may have and weigh the cost of designating critical habitat with the benefits to recovery. Areas can be excluded from a critical habitat designation if the costs are deemed to be too great as long as the decision not to designate does not jeopardize the continued existence of the species. It is expected that the NMFS will complete the designation by 2008. Critical habitat designation will also change the management regime outlined in the Implementation Plan.

Since the development of the IP the entities charged with managing salmon have changed slightly. The Maine Atlantic Salmon Commission (MASC) was charged with the management and conservation of Atlantic salmon. The MASC was also charged with coordinating with other state agencies to carry out their salmon management responsibilities. Over the past year the MASC was merged with the stock enhancement division in the Maine Department of Marine Resources (MDMR) to form the Bureau of Sea Run Fisheries and Habitat. This consolidation will likely allow DMR to take an ecosystem approach to diadromous fisheries management and conservation.

In response to the hatchery review recently conducted by Sustainable Ecosystems Institute (SEI), the state and Federal agencies responsible for managing Atlantic salmon in Maine are developing a new governance structure for the Maine Atlantic salmon program. The new governance structure addresses needs highlighted by SEI such as (1) the hatchery program should be more fully integrated with the recovery program; (2) the agencies should develop a conceptual framework for recovery; and (3) this framework should guide all recovery efforts. The new governance structure is replacing the Maine Atlantic Salmon Technical Advisory Committee and the Recovery Team. It is based on an agreed recovery framework with the intent that: 1) recovery and restoration are done in accordance with the framework; 2) the framework and the program are based on best available science; 3) resources are made available to implement those actions or measures agreed to in any given cycle; 4) there is dispute resolution and continuity throughout the year; and 5) horizontal and vertical communication among and within agencies will improve. Action Teams related to estuarine, marine, and freshwater survival and production, conservation hatcheries, managing genetic diversity, population assessment, and outreach are the key component of the new Atlantic salmon program. Action Teams have just started the process of identifying the highest priority research and management actions to recover the Gulf of Maine Distinct Population Segment of Atlantic salmon. The finalization and implementation of a new Atlantic salmon recovery framework is not yet complete, however, necessary changes will be made to the IP to more accurately reflect the existing management structure.

Lastly, the MDMR recently authorized a spring catch and release recreational fishery on the Penobscot River, Maine. A risk assessment was conducted to determine the biological risk posed by a spring and fall fishery. The spring fishery was found to result in a significant biological risk to the Penobscot population. Despite this

information the fishery has been authorized and changes will be made to the IP to reflect this. This fishery is discussed further in the US Fisheries Focus Area Report. No information reported for other Parties/jurisdictions.

2. Changes in Stock Status and Information on Catch Statistics, Unreported Catches and Catch and Release

2.1 Significant changes to the status of stocks as described in the Implementation Plan

European Union

Ireland

Increase in run size noted at most counting facilities. Varying rates of increase but generally a doubling of the runs in the absence of the mixed stock fisheries where information was available.

UK (England and Wales)

See Question 4.2, Action 4.

UK (Northern Ireland)

Percentage compliance with Conservation Limits:

Index River	2006 [provisional]	2006 [final]	2007 [provisional]
Bush	83	83	170
Blackwater	35	32	n/a
Main	46	42	98
Dun	57	57	77
Moneycarragh	40	40	76
Shimna	n/a	40	n/a
Mourne	117	117	n/a
Finn	106	106	76
Roe	81	81	367
Faughan	453	453	n/a

Stock status (spawners) at national aggregate level [ICES run reconstruction modelling]:
2006 = 26,654
2007 = 102,252

Norway

In 2007 the grilse escapement was generally unusually small, and the mean weight was also unusually low, indicating very poor conditions at the feeding grounds. There are also indications that the portion of two sea-winter fish in the size-group 1-3 kg (grilse) has been extremely high, further indicating very poor conditions at sea.

River Lærdalselva is still infected by the salmon parasite *Gyrodactylus salaris*. In an attempt to get rid of the parasite, the river was treated with aluminium sulphate twice in 2005 and once in 2006. The treatments were unfortunately unsuccessful. The parasite was registered again in the autumn of 2007. New treatments will be carried out in 2008 and in 2009. In the River Steinkjerelva, which also is infected, the aluminium sulphate treatment in 2007 could not be carried out according to the action plan due to weather conditions and technical defects. These two projects are therefore 1-2 years late in relation to the Implementation Plan.

No information reported for other Parties/jurisdictions.

2.2 Catch statistics

The Official Catch Statistics, as submitted by the Parties, are tabulated overleaf in Annex 1, Table 1. The figures for 2007 are provisional. Table 2 in Annex 1 presents catch statistics for the period 1960-2007 by Party to the NASCO Convention. The total provisional declared catch of 1,530 tonnes in 2007 by NASCO Parties is approximately 25% lower than the confirmed catch in 2006 (2,025 tonnes) and, if confirmed, will be the lowest catch in the forty-eight year period of record since 1960. However, there have been major reductions in fishing effort all around the North Atlantic. Therefore, these catch data should not be used as a measure of abundance. Further information on the status of salmon stocks in 2007 is contained in the ACFM report from ICES (CNL(08)7).

The catch statistics in Table 1, which have been rounded to the nearest tonne, will be used to calculate the contributions to NASCO for 2009 and the adjustment to the 2008 contributions (in the light of the confirmed 2006 catches) unless the Secretary is advised otherwise.

2.3 Unreported catches

In 2007, between 360 - 576 tonnes were estimated to be unreported compared to a provisional declared catch of 1,530 tonnes, i.e. the estimate of unreported catch is between 23-38% of the reported catch

2.4 Catch and Release

Approximately 176,000 salmon were released following capture in recreational fisheries in 2007, an increase from 154,000 in 2006. These figures are provisional but are the highest in the eight-year time series. Catch and release angling is not practised in all countries and in some countries no statistics are available on the extent of its use

3. Any new factors which may significantly affect the abundance of salmon stocks

European Union

Ireland

Closure of the mixed stock fishery resulted in an increase in escapement in most rivers where data were available.

UK (England and Wales)

The closure of the Irish drift net fishery in 2007 should mean that up to 5,000 more grilse returned to English and Welsh home-waters, representing about a 4% increase overall. Rivers in the south and west of England and Wales are expected to have benefited the most.

UK (Northern Ireland)

Cessation of Loughs Agency mixed stock drift net fishery seaward of Lough Foyle. This is reported in the Focus Area Report on Management of Salmon Fisheries in UK-NI.

A habitat improvement project on 2 rivers in the Loughs Agency area and 1 river in the FCB area was completed in 2007. Preliminary results indicate a significant increase in salmon parr densities at many of the rehabilitation sites. In addition, the Loughs Agency undertook similar schemes on 6 further rivers and continued with additional work on one of the rivers from the initial project.

Provisional estimation of marine survival to the River Bush (ICES index river) suggests an upturn in 2007.

Norway

* In November 2007 VHS outbreak was confirmed in a fjord in central parts of Norway (Møre og Romsdal). Stamping out procedures followed by cleaning, disinfection and fallowing has been carried out.
* The development for the two viral diseases PD (pancreas disease) and HSMI (heart and skeletal muscle inflammation) the last five years is of considerable concern. The number of PD outbreaks (1998:7 – 2007:98) has increased seriously and the disease is constantly spreading along the West Coast.
* Global warming and increasing water temperatures will require increased awareness on new diseases and warm water diseases. A significant higher production of marine species like cod may induce changes in the health situation of salmonids. Previous exotic diseases may become established in farmed cod and could represent an increased threat for wild Atlantic salmon.

USA

The experimental fishery authorized by the DMR to take place in the spring of 2008 does pose a biological risk to the population in the Penobscot River.

4. Actions taken in relation to management of salmon fisheries; protection and restoration of salmon habitat; aquaculture, introductions and transfers; other influences

4.1 Any laws, regulations or programmes been adopted or repealed since the last notification

Canada

Bill C-32 was introduced in the House of Commons and went through the First Reading on November 29, 2007. The approval process is lengthy.

European Union

Ireland

Wild Salmon and Sea Trout Tagging Scheme Regulations 2007 S.I. No. 849 of 2007 provide, among other things, the quotas of fish that can be harvested by commercial fishing engines and rod and line from those rivers which are identified in the regulations as having a surplus above the conservation limit.

Salmon Rod Ordinary Licences (Alteration of Licence Duties) Order 2007, S.I. No. 794 of 2007. This Order prescribes the licence fees payable from 1 January 2008 in respect of salmon rod ordinary fishing licences and the Foyle Area extension licence including a salmon conservation component equivalent to 50% of the licence fee. The proceeds of this will be invested in wild salmon management initiatives designed to rehabilitate wild salmon stocks and habitats.

Conservation of Salmon and Sea Trout Bye-Law No. 829 of 2007 provides for an annual bag limit of 10 fish in rivers identified as being above their conservation limits for the 2008 season and a season bag limit of 3 fish in the period 1 Jan to 11 May, a daily bag limit of 3 fish from 12 May to 31 August and a daily bag limit of 1 fish from 1 September to the end of the season. The Bye-law also provides for the use of single hooks and prohibits the use of worms as bait once the specified number of fish have been caught in the specified periods.

Conservation of Salmon and Sea Trout Bye-Law No. 830 of 2007 provides for catch and release in respect of salmon and sea trout (over 40 cm) in specified rivers and associated conditions.

Conservation of Salmon and Sea Trout Bye-Law No. C.S. 293, 2007 prohibits angling for salmon and sea trout (over 40 cm) in specified rivers that are not meeting their conservation limits.

Closure of the Irish mixed stock fishery resulted in only a single tag recovered from stocks outside the area of jurisdiction (fish originated in UK N. Ireland)

UK (England and Wales)

- The following new Net Limitation Orders (NLOs) were agreed:
  - River Teifi (Wales) seine net fishery reduced to 3 nets from 4
  - River Tywi (Wales) coracle fishery reduced to 8 nets from 12
  - River Exe (south-west England) seine nets fishery reduced to 4 nets from 6 in 2006 and 11 in 2005. (This was the result of a buy off agreement (7 of the 11 licensees were compensated not to fish for the entire season in 2007).
  - River Ribble (north west England) drift net fishery reduced to 2 from 6
- The rod fishing season was extended from 30/9 to 14/10 on the river Exe.
- A new 10-year effort reduction programme was agreed for the rivers Dart and Teign.
- All seine nets operating in the joint estuary of the rivers Lynher, Tavy and Tamar continued to be subject to a 10 year payment scheme to buy out (permanently) some nets and buy off (temporarily) the remainder;
- Compensation payments have been used to speed up the phase out of the trammel and seine net fisheries on the River Dee (North Wales), which was initiated in 2004.
- A number of net fisheries in England and Wales are continuing to be phased out by means of NLOs that reduce licence numbers to zero as fishermen retire.

UK (Northern Ireland)

The cessation of the Loughs Agency mixed stock fishery in 2007 was given effect by regulation. This is reported in the Focus Area Report on Management of Salmon Fisheries in UK-NI.

A new licensing scheme for water abstraction and impoundment (the Water Abstraction and Impoundment (Licensing) Regulations (Northern Ireland) 2006) was introduced in 2007.

The Nitrates Action Programme (NAP) Regulations (NI) 2006 and the Phosphorus (Use in Agriculture) (P) Regulations (NI) 2006 were introduced on 1 January 2007 to improve the use of nutrients on farms and as a result improve water quality. The Nitrates Directive is one of the Cross Compliance Statutory Management Requirements, therefore, farmers claiming Single Farm Payment and other direct payments are required to comply with the NAP Regulations. Measures relating to the P Regulations are not Cross Compliance Verifiable Standards. However, adherence to both sets of Regulations is required by law. A Guidance Booklet on requirements to comply with the NAP and P Regulations has been sent out to all farm businesses in 2007.

A contingency plan for dealing with outbreaks of *Gyrodactylus salaris* in NI was drafted in September 2007.

UK (Scotland)

- The Aquaculture And Fisheries (Scotland) Act 2007
- The River Ness Salmon Fishery District (Baits And Lures) Regulations 2007
- The Tweed Regulation Order 2007

Norway

Fishery regulations

- In 2008, new riverine fishery regulations for the period 2008-2012 will be adopted in every county*.
- In 2008, new provision for the fishery towards salmon with stationary gear at sea will be adopted**.

*) Not yet adopted 1 April in every county.
**) Not yet adopted 1 April. At the time being uncertain when it will be adopted.

Gyrodactylus salaris

In 2007, a new eradication project in the Steinkjer Region (River Steinkjerelva and River Figga) began. These rivers are situated in the innermost Trondheimsfjord, in the middle part of Norway. This fjord system is the most important area for Atlantic salmon in Norway. The eradication of the parasite from the River Steinkjerelva and the River Figga is being given the highest priority. The main rivers and its largest tributaries were treated with aluminium sulphate (AlS). Rotenone was used in small quantities in more or less stagnant water, smaller tributaries and other complex areas connected to the river. This treatment was unfortunately not carried out according to the action plan. The problem was connected with weather condition and technical defects. New treatments of these rivers will be accomplished in 2008 and 2009.
An aluminium sulphate treatment project was also completed in 2 smaller rivers (River Hestdalselva and River Halsanelva) situated in the Vefsna Region in the northern part of Norway.
In addition to the remedial measures, a new monitoring programme was adopted. This new programme divide the monitoring in three sections: (1) Monitoring to detect new infected rivers, (2) epidemical monitoring and (3) monitoring after end treatments in connection with the health certificate for the rivers.
Preventive measures are also being given high priority.

Salmon lice

From the south western parts of Norway and further north up to central parts the infection pressure is still considered to be high.

Monitoring results from last year shows numbers of sea lice and infections rates on wild fish still be at high levels, but not as high as in the 90-ties. The reduced sea lice infections on wild salmonids after 1998 are probably due to improved treatment strategies and better delousing agents in the fish farming industry. This has reduced the number of effective hosts to sea lice, even though the number of potential hosts has increased. However, even though the problem of salmon lice infections has decreased, **the level of infection and number of prematurely returning sea trout**

still far exceed what should be regarded as natural. The variation among years and regions since 1998 is probably due to abiotic environmental factors, such as water temperature, currents and salinity.

National action plan
The Norwegian Food Safety Authority under the The Ministry of Fisheries and Coastal affairs has now drawn up a proposal for revised strategy for the *National plan of action against salmon lice on salmonids.*

Winter campaign
A national mandatory de-lousing strategy has been started. In order to further reduce the number of effective hosts for sea lice and thereby improve conditions for wild populations of salmonids, the Norwegian Food Safety Authority has demanded that fish farms from south western part of Norway up to central parts carry out coordinated delousing and maintain the infections at a lower level than before. Further surveys will reveal whether these actions have had a positive effect on wild salmonids.
From next winter the whole country will be included. The campaign shall be evaluated continuously and last for minimum three years in this first campaign step.

Revised regulations
The minimum level of lice attack that gives mandatory delousing actions is reduced down to 0,25 mature female lice pr. fish. However the new regulations open up for flexible regulations dependent on the situation in wild fish populations in the relevant region.

Resistance
In November and December 2007 resistance against sea-lice treatments methods were discovered at four fish farms in Norway. These findings have now been confirmed and bring to the light a deep concern – both in the industry and of course among wild fish managers.

Russian Federation

Reformed fisheries management structure in the Russian Federation

In 2007 the State Committee of the Russian Federation on Fisheries having the status of a ministry was established. At the end of 2007 – beginning of 2008 formation of territorial directorates of the State Committee on Fisheries was finalized. These are plenipotentiaries of the Committee in areas within their jurisdiction across the fisheries basins. The territorial directorates of the Committee are entrusted with the task of protecting the stocks of anadromous fish, controlling and enforcing the fisheries legislation of the Russian Federation and other tasks relating to the fisheries management.

The Atlantic salmon is under the jurisdiction of three Territorial Directorates – Barents-White Sea TD (Murmansk region), Dvina-Pechora TD (Arkhangelsk region, Nenets Autonomous Region, Komi Republic) and North-Western TD (Republic of Karelia).

Amendments to the Federal Law on Fisheries

From 1 January 2008 amendments to the Federal Law "On fisheries and conservation of aquatic biological resources" came into force. The amendments concern, inter alia, the harvesting of anadromous fish. Article 29.1 of the Law defines requirements to harvesting of anadromous fish, such as:
- legal entities and entrepreneurs shall harvest anadromous fish on the basis of a contract allocating a fishing site;
- for harvesting the anadromous fish such species and water bodies, where they live, are allocated following a decision of the Commission on regulation of the harvesting the anadromous fish, which shall further be approved by the territorial directorate of the State Committee on Fisheries;
- the Commission has also the power to determine volumes that can be fished, times and sites of fishing and other conditions of harvesting the anadromous fish, which shall then be approved by a territorial directorate of the State Committee on Fisheries.

New fisheries regulations for the Northern fisheries basin

New fisheries regulations for the Northern fisheries basin were adopted in 2007 and came into force on 19 June with provisions of the Federal Law "On fisheries and conservation of aquatic biological resources" duly taken into account. The regulations define requirements to the conduct of all types of fisheries, including fishing for Atlantic salmon. Responsibilities of users fishing for aquatic biological resources have been defined, restrictive measures in fishing established, fishing gear, sites and times of fishing defined.

USA

While there have been no changes to laws, regulations, or programs during 2007, there are several changes anticipated during 2008. As previously mentioned, a change in the listing status of the GOM DPS under the Endangered Species Act will change the regulatory framework. This is also true for critical habitat designation. Both of these determinations are likely to be proposals made in 2008. In addition, the recent authorization of a spring fishery in the Penobscot River in 2008 represents a significant change to regulations in the State of Maine governing Atlantic salmon fisheries.

4.2 Any other new commitments concerning the adoption, or maintenance in force for specified periods of time, of measures

European Union

Ireland

Salmon Rod Ordinary Licences (Alteration of Licence Duties) Order 2007, S.I. No. 794 of 2007. This Order prescribes the licence fees payable from 1 January 2008 in respect of salmon rod ordinary fishing licences and the Foyle Area extension licence including a salmon conservation component equivalent to 50% of the licence fee. The

proceeds of this will be invested in wild salmon management initiatives designed to rehabilitate wild salmon stocks and habitats.

Sweden

A control zone concerning VHS has been outruled in 2007 according to 91/67/EG regulation of four years passing since last detection of the disease at the river mouth of Göta älv.

UK (England and Wales)

The following provides a summary of progress against actions on the Implementation Plan for England and Wales:

Salmon Action Plans

ACTION 1: By 2009, establish the programme for developing new salmon management plans.

The programme of developing Salmon Action Plans (SAPs) for all 64 principal salmon rivers in England and Wales was completed in 2004. Each Plan contains an agreed list of actions with a 5 year planning horizon. The SAP process is continuing to be used while the new management plans are being developed. Six SAPs (the Wye, Tamar, Test and Itchen, and Leven and Crake) have been reviewed, in consultation with fisheries interests and other stakeholders. The Environment Agency is finalising a new national Sea Trout and Salmon Fisheries Strategy that will lead to a revised approach to management plans.

Fisheries management:

ACTION 2: (i) Continue the development of procedures for using reference points in the assessment and management of salmon stocks.
(ii) By 2009, apply SLM to a number of salmon rivers in order to evaluate its performance; identify improvements/areas for further model development; and clarify the role of SLM alongside current CL setting and compliance procedures in the management of salmon stocks.
(iii) Also by 2009, evaluate use of a model to predict rod exploitation rates and to improve current CL compliance procedures.

(i) The Environment Agency is continuing to review and revise its procedures for setting and using Conservation Limits and Management Targets and both analytical methods and presentation of results has been updated in the Cefas/EA Annual Assessments of Salmon Stocks and Fisheries

(ii) Work on the Salmon Lifecycle Model is progressing and example rivers are being examined.

(iii) Work is continuing to better reflect real exploitation rates, where these are available, in stock assessments, and to review the balance between use of default

(generic) and river-specific data. The approach to compliance assessment (described in the Implementation Plan) is now incorporated into a new decision structure applied on an annual basis and aimed at guiding decisions on the level of fishing controls required.

ACTION 3: By 2012 evaluate and determine the measures for the east coast mixed stock salmon fisheries consistent with England and Wales policy.

A mid-term review is underway addressing the impact of the current regulation on the net fishery and on relevant river fisheries.

ACTION 4: Undertake annual reviews of the status of stocks in each principal salmon river and determine the need for immediate changes to regulatory measures through the application of the Decision Structure.

The annual review of stock status has been completed for 2007 and shows:
– 10 rivers (16%) were classified as 'not at risk' – i.e. had a high probability (> 95%) of meeting the management objective;
– 15 rivers (23%) were classified as 'probably not at risk' – i.e. had a probability of between 50% and 95% of meeting the management objective;
– 10 rivers (16%) were classified as 'probably at risk' – i.e. had a probability of between 5% and 50% of meeting the management objective;
– 29 rivers (45%) were classified as 'at risk' – i.e. had a very low probability (<5%) of meeting the management objective.
The 'at risk' category does not mean stocks in danger of becoming extinct, but rather that they are falling well short of management objectives. Fishery regulations are adjusted to provide medium-term (5-10 year) recovery. Changes to regulations are being considered as part of the rolling review programme.

ACTION 5: Review NLOs for net fisheries prior to their expiry (see table below) or as required by annual stock status assessments, and determine the requirements for, and implement, new controls. This process will include undertaking stakeholder consultation and applying the Decision Structure.

The following NLOs have been reviewed according the schedule and applying the approach described above :

Southern region: Salmon stocks in both the Rivers Test and Itchen have consistently failed their respective CLs, though both rivers show improving trends. There is a national policy to close mixed stocks salmonid fisheries in coastal water. One net operates in the Beaulieu Estuary but takes only small number of sea trout and no salmon. The NLO for the area has therefore been reduced from two to one, with only the Beaulieu continuing to operate, and there will be no other exploitation of salmon by nets in this Region..

Poole Harbour (Rivers Frome and Piddle): The Frome salmon stock continues to hover around the CL, whilst the Piddle has consistently failed since 2001. Sea trout catches by the Poole seine net are almost negligible (averaging fewer than 10 fish in each of the last 10 years) but the fishery is to be allowed to continue in order to

provide a deterrent to the illegal exploitation of migratory salmonids in the estuary. Both rod and net fisheries accept 100% C&R for salmon.

Fowey: The Fowey salmon stock has consistently (since 1991) exceeded its salmon conservation limit (CL) and is meeting its management objective. However, the net fishery is operating at a very low level and it is proposed to introduce a reducing NLO that would limit the number of licensed seine nets operating in the estuary to 1 (down from 2), to be achieved as and when one of the remaining netsmen leaves the fishery.

Camel: A package of measures, both mandatory and voluntary has been developed for the river Camel fisheries. This includes a reducing NLO to limit the number of licensed drift nets operating in the Camel estuary to 6 (down from 7), continuation of the current voluntary measures within the rod fishery (with an expectation of mandatory bag limits or season changes if voluntary catch and release rates are not maintained).

Solway (rivers Eden and Esk): The Eden salmon stock is failing to meet its management target, and additional conservation measures are required for the Border Esk. Salmon, and sea trout runs on both rivers are a cause for concern and require reduced exploitation. New measures have therefore been introduced that halve the level of exploitation by nets, by capping the number of licences at current levels and reducing the time available for fishing. Bag limits have been introduced for the rod fisheries.

ACTION 6: Review the following byelaws for salmon fisheries prior to their expiry in 2008: and determine the requirements for subsequent controls through the application of the Decision Structure:

- ***Northeast Region byelaws – annual close season for salmon & trout;***
- ***National byelaws:***
  - ***annual close season for salmon & trout fishing other than with rod & line;***
  - ***early season catch and release in specified fisheries and by rod & line;***
  - ***early season method restriction for salmon with rod and line.***

Informal consultations on options for measures required to protect early-running MSW salmon after 2008 (to replace the above byelaws) started in July 2007. A renewal of the byelaws (unchanged) is to be advertised for formal consultation during 2008. The Northeast byelaw will be reviewed within this process.

Other: With regard to other regulatory change under byelaws, season extensions continued to apply for rod fisheries on a number of rivers in Wales and South West England, and a new season extension was introduced on the River Seiont (North Wales) in 2006. In all cases, catch and release is mandatory during the extension period; other method restrictions also apply at this time on some rivers.

ACTION 7: By positive engagement with other relevant jurisdictions, directly and through the EU and NASCO, seek to ensure that exploitation of any English or Welsh salmon stock in home-water fisheries outside England and Wales does not exceed 1%.

Following the closure of the Irish coastal drift net fishery in 2007, there are no identified fishery that was known to be exploiting more than 1% of any stock in England and Wales outside UK home-waters.

Protection and restoration of salmon habitat:

ACTION 8: Continue the development and implementation of the River Fisheries Habitat Inventory as part of development of the Salmon Lifecycle Model to 2009 (see Action 2 above).

The Environment Agency has completed an R&D project to develop a methodology that combines statistical modelling techniques with a Geographical Information System (GIS) for producing a quantitative inventory of the juvenile salmonid habitat and populations present within a catchment. The models for quantifying habitat were calibrated on reference sites throughout England and Wales that were not considered to be impacted by factors such as access for migratory adults, water quality or sedimentation problems. The models operate at two levels: one is based on a very simple assessment of map-based variables from GIS, such as altitude and catchment area; and the other includes field-based variables from habitat surveys, such as substrate and flow types. The primary application for these models will be to improve the basis for setting salmon Conservation Limits. These methods, along with other developments towards a Salmon Lifecycle Model will be published as an Environment Agency Science Report in 2008.

The models for quantifying juvenile populations are based on annual electrofishing data, and interpolate/extrapolate these data throughout a catchment using the habitat models described above. The method can be applied to sites that have been sampled by either single or multiple pass removal, by using the capture probabilities from the multiple-pass sites to help interpret the catches at the single-pass sites. The primary application for these models will be the quantitative assessment of freshwater impacts on juvenile salmonids at a catchment scale.

ACTION 9: Continue and expand the range of initiatives to bring about significant changes in land use to protect and enhance river habitats - including agri-environment schemes, implementation of the WFD, information campaigns and tighter regulation; report annually on activities.

Catchment Sensitive Farming Officers have been appointed in all seven Environment Agency regions across England and in Wales to guide local application of agri-environment funds to support improved land management practices. The Environment Agency, Natural England, Countryside Council for Wales and conservation and fisheries NGOs have worked with Governments to influence the priorities for use of such funds to support river habitats.

Stakeholder panels have been set up and have begun the process to identify key pressures and appropriate measures for each of the 11 river basins for delivery of the Water Framework Directive in England and Wales (and bordering Scotland). The Environment Agency is implementing monitoring programmes to assess pressures and track achievement of WFD goals. Work is underway to establish the most effective means to measure progress towards Good Ecological Status for fish (including salmon) in concert with other EU states.

A **"Blueprint for Water"** has been published by fisheries and environmental NGOs to influence the development of sustainable management and use of water by 2015.

The **sale of cypermethrin-based sheep dips** has been suspended by the UK Government pending a relevant risk assessment following reports of damage to river-life and fisheries associated with use of these products.

ACTION 10: Deliver strategic programmes targeted to address degraded salmon habitat and involving collaboration between stakeholder groups to optimise what is achieved; report annually on activities.

In Wales the Sustainable Fisheries Programme continued delivery of a strategic programme of fisheries improvements in 2007/08, supported by £800k from Welsh Assembly Government. The project is co-ordinated by the Environment Agency and involves River Trusts, local fisheries groups, conservation organisations and local authorities. The Environment Agency and partners have also attracted additional EU funding for strategic fisheries improvements, for example including the Migratory Fish Habitat Enhancement Project (£1.5 Million from 2006-2008), the Powys Habitat Improvement Scheme (£2.1million 2002-2007) and the Usk Project (£1.1million 2004-2008).

River Trusts have developed catchment level programmes of work to improve habitat. For example:

- The Tyne Rivers Trust in North East England consulted a wide range of catchment interests to develop their action programme for the Tyne;
- The Eden Rivers Trust in the North West and the South West Rivers Trust each undertook habitat improvement and monitoring work to advance their catchment programmes.

ACTION 11: Deliver the annual programmes of river improvements, including those identified within SAPs and those organised by Rivers Trusts, advise land managers and protect and restore river and riparian habitats; report annually on activities.

The following is a range of river improvement initiatives that was delivered across England and Wales in 2006/07 that enhanced the environment for salmon. An update on more recent work will be provided in the next report.

Reducing barriers to migration: In England, new fish passes or easements (less formal facilities to enable fish passage) were installed at 11 sites on 10 rivers. In Wales, facilities were installed at 18 sites on 6 rivers. Examples included*:*

– Fish passes constructed on two tributaries of the River Usk, the Cynrig and the Crawnon that, with 4 other easements have opened 25.5 kilometres of previously inaccessible habitat and improved access to a further 33 kilometres;

– In South West England, fish passes completed on the river Dorset Avon and on the Axe and easements installed on the Frome.

Habitat improvements: Works to provide bank-side protection, improve riparian habitat and channel structure and to enhance salmon spawning areas were delivered in 5 rivers in Wales and 17 in England. Examples included:

– Habitat improvements along 6.4 kilometres of River Wye tributaries;

– Riparian buffer strip created along 8.9 kilometres of River Teifi tributaries;

– 3 new salmon spawning beds and 14.9 kilometres of bank-side protection provided in the River Tamar catchment

– Improvements to riparian zones in 5 tributaries of the R. Eden; and

– New artificial spawning channels constructed on 2 tributaries of the R. Ribble with evidence of use shortly after completion.

Improving water quality: Work was delivered that enhanced water quality in 7 rivers in England and 6 in Wales. These, in most cases, involved upgrades to sewage and water treatment works operated by the water companies and involving significant investment. Examples of these were:

– On the R. Fowey in South West England, works to reduce sewer leakage and to reduce suspended solids in discharges at one sewage treatment works costing £1 million and construction of another new treatment works to improve water quality in the estuary;

– Phosphate removal started at 5 sewage treatment works on the rivers Taff and Ely in South Wales to enhance water quality in the estuary and freshwater reaches.

Lime-dosing or lime blocks were used to ameliorate the effects of acidification in 5 rivers in Wales, the Severn, Wye, Tywi, Teifi and Mawddach.

Other special projects and investigations: The following additional work has been undertaken:

– The Environment Agency undertook a study of the extent and level of effects

of sheep-dip on the ecology and fisheries of rivers across Wales.

– A 3-year, water company funded investigation into entrainment of fish at water intakes along the R. Thames was started to identify measures to reduce losses of salmon smolts.

– More than 100 river keepers from the rivers Test and Itchen in Southern England attended a workshop on river habitat management.

– On the River Irt in Northwest England, a fluvial audit and geo-morphological report identified where measures will best be implemented to reduce inputs of sediment.

Aquaculture, introductions and transfers:

ACTION 12: Control the stocking of salmonids and other species within the terms of the current national policies for introductions and transfers; report annually on stocking activities.

In a number of catchments, juvenile salmon are stocked from hatcheries for mitigation, restoration or enhancement purposes. Full details of the numbers of fish stocked in these programmes, and the stage (eggs, fry, parr and smolts) of release, are included on a catchment by catchment basis in the Salmonid and Freshwater Fisheries Statistics published annually by the Environment Agency. The National Stocking Policy guides all these programmes.

Introductions and transfers of other species are controlled under the Introduction of Live Fish Act and Wildlife and Countryside Act. Research is underway to more fully investigate the risks associated with past and potential introductions and evaluate the potential consequences of climate change

ACTION 13: Continue to assess the incidence of salmon farm escapees in monitored rivers in England and Wales, and take appropriate action if levels increase significantly.

There were no reports of salmon suspected to be of farmed origin being caught in rod or net fisheries in England or Wales in 2006 or 2007.

ACTION 14: In 2008, report on results of research on the impacts of in-river aquaculture facilities on juvenile and adult salmon; plan and implement appropriate follow-up work by 2010.

Summary of Defra Project SF0241 – The impact of intensive in-river aquaculture on wild salmonids

Research contractors: C. Waring (University of Portsmouth) and A. Moore (Centre for Environment, Fisheries and Aquaculture Science).

Over the last few decades there has been a significant increase in the development of intensive in-river aquaculture for the production of salmonids in a number of English rivers. Many of these fish farms produce rainbow trout and brown trout either for consumption or for restocking the rivers for recreational angling. However, there have

been surprisingly few studies examining the effects of these facilities and particularly their effluents on wild fish populations resident downstream of the fish farms. Of particular concern are the possible effects of the effluents on the Atlantic salmon particularly during sensitive life history stages such as reproduction and smoltification.

The present study investigated the effects of trout farms (both rainbow trout farms and brown trout) on both reproduction and smoltification in Atlantic salmon. The research involved laboratory-based studies on the impacts of identified contaminants within the fish farm effluents on salmon reproduction, smoltification and the ability of smolts to adapt to seawater. In addition, field-based studies were carried out where both male salmon and salmon smolts were caged upstream and downstream of rainbow and brown trout fish farms to investigate the impact of the effluents on physiology and survival.

The research has indicated that the effluents from fish farms can have significant impacts on Atlantic salmon particularly during sensitive life history stages such as reproduction and smoltification. In addition, effluents from rainbow trout farms may also have a deleterious effect on the macroinvertebrate populations, which include many of the prey items of juvenile salmonids.

<u>Other influences:</u>

ACTION 15: Report annually on results of research into factors affecting marine survival of salmon and develop new research programmes; plan and implement appropriate follow-up actions.

Summary of Defra Project number SF0237 - Modelling the bioenergetics of Salmon migration

Research contractors: D.J.Booker (Centre for Ecology and Hydrology, Wallingford), I.P.Smith (University Marine Biological Station, Millport), and N.C.Wells (School of Ocean and Earth Science, University of Southampton)

Populations of Atlantic salmon have declined throughout the species' range. The primary causes may vary among populations, but it appears that there has been a widespread decrease in survival during the marine phase, associated with reduced growth rates. It is therefore important for efforts to conserve salmon populations to understand how changes in oceanic conditions might affect growth and survival.

This project used a physiologically and physically-based numerical modelling approach to investigate the effects of changing oceanographic conditions on the growth and survival of migrating Atlantic salmon. A bio-energetic approach was taken, which seeks to assess survival and growth by quantifying the balance between energy gained from feeding and energy lost through maintenance, activity, digestion, food capture, growth, nitrogenous excretion and faeces.

Evaluation:

ACTION 16: Maintain on-going monitoring programmes and publish results with an assessment of the status of salmon stocks in England and Wales in April each year for dissemination to ICES and stakeholders.

The Cefas/Environment Agency Annual Assessment of Salmon Stocks and Fisheries in England and Wales in 2007 was published in April 2008 and presented to the ICES Working Group on North Atlantic Salmon. This contains further details of developments summarised above in this progress report. The full report is available at www.cefas.co.uk/publications/salmon or at www.environment-agency.gov.uk/fisheries. The main conclusions were as follows:

UK (Northern Ireland)

The full range of measures planned in UK-NI are set out in the Implementation Plan submitted in 2007 and finalised in early 2008.

UK (Scotland)

- Catch and release in the salmon rod fishery in 2006 reached 55.3% of all salmon and grilse caught
- Salmon netsmen repeated their voluntary deferment of the start of the netting season by 6 weeks to conserve early-running stocks
- District salmon fishery boards and fisheries trusts throughout Scotland have maintained programmes of stock and habitat enhancement
- Development of a strategic framework for Scottish freshwater fisheries, of which all key theme priority for actions (pfa) directly or indirectly impact on the management of Scottish salmon stocks.

Norway

Liming

In 2007, 21 Atlantic salmon rivers were limed in Norway at a cost of NOK 50 million (approximately £4 million). Due to high runoff in limed rivers The Ministry of Environment made additional funding available (2 mill NOK) in 2007 to make it possible to continue the liming programme in the limed salmon rivers. The total catch of Atlantic salmon in the 21 limed rivers was reduced from 47 tonnes in 2006 to 38 tonnes in 2007. The catches of Salmon in the limed rivers contributed in 2007 to about 11% of the national river catch measured in tonnes in Norway. This is the same percentage as in 2006, and indicates that the decline in catches in southern-most Norway was at the same level as the rest of Norway. The catch has increased from 5 tonnes prior to liming in the early 1980`s, to 40 tonnes in recent years. Most liming projects in Norway commenced during the period 1991 to 1997. It will take some years before salmon stocks in treated rivers are fully re-established. The Norwegian Institute for Nature Research (NINA) has estimated that the salmon stocks in rivers will be fully re-established after about 15 years of liming. The catch in limed rivers is expected to be between 75 and 80 tonnes in 2015.

According to our implementation plan necessary investments in ongoing liming projects in the rivers Audna, Lygna, Kvina in the county of Vest-Agder should be made in 2007. In 2007 we managed to fund necessary investments in the rivers Lygna and Kvina. We hope that we get the necessary funding for Audna in 2009.
In 2007 the need and feasibility of liming in the river Otra, Vest-Agder county was examined. Conclusions will be followed up.

Conservation of salmon stocks

There has not been any activity concerning cryopreservation of salmon milt in 2007. By the end of 2007, milt from a total of 6,500 wild salmon from 169 stocks had been included in the Frozen Gene Bank (cryopreservation). Norway currently operates 3 living gene banks (LGB); one in northern Norway, one in middle Norway and one in south-western Norway. The threats to the stocks that are kept in these stations are hydropower development, acidification, high proportion of escaped farmed salmon and the freshwater parasite *Gyrodactylus salaris*. Nine of the 29 salmon stocks that have been maintained in LGBs have been re-introduced into their river of origin; seven are no longer retained in captivity but two are being kept as a precaution against future catastrophes. Ten additional stocks are under restoration, while the seven remaining stocks await eradication of *G. salaris* from their native rivers. One stock of landlocked salmon is maintained in the LGB as a precautionary measure. The three LGBs are now preserving 22 stocks, 4 in Bjerka, 10 in Haukvik and 8 in Eidfjord.

Conservation of wild salmon

In 2007 the Norwegian Parliament adopted a Proposition to the conservation of wild salmon and the finalization of the National Salmon Rivers and Salmon Fjords scheme. In addition to another 15 rivers and 8 fjords and a more concrete and strict management regime, especially for aquaculture in National Salmon Fjords, new measures for the conservation of the wild salmon resource in Norway were passed. The further spread of *Gyrodcatylus salaris* and introgession of escaped farmed salmon are identified as the two most severe threats to the further existence of wild Atlantic salmon stocks in Norway. Amongst the measures adopted are the continuation of liming of salmon rivers, increased efforts to eradicate GS from Norwegian rivers, new measures to reduce escapes from salmon farms and the introduction of a programme aimed at developing sterile salmon for farming purposes. More effective control of sea lice production in fish farms, the development of a national salmon habitat protection and restoration plan and the need for improving conditions for wild salmon in connection with renewal or revision of hydro-power licences are also included. Furthermore the bill points to the need for more restrictive regulations in salmon fisheries to reduce mixed stock fisheries.

4.3 Any new actions been taken to prohibit fishing for salmon beyond 12 nautical miles

4.4 Any new actions taken to invite the attention of States not Party to the Convention to any matter relating to the activities of the vessels of that State which appears to affect adversely the salmon stocks subject to the Convention

Canada

Canada met bilaterally with France on March 18-19, 2008. At the meeting, France indicated that the SPM fishery had diminished and the catch was down. France admitted being the only country in the North Atlantic having a commercial fishery. The catch for 2007/08 was 1.8 t (900 kg by professionals and 900 kg by recreationals). France indicated they would continue to provide information to NASCO. Canada invited France to join NASCO and although they indicated they would attend the annual meeting as observers, no decision had been taken as to whether they would join the organization as members.

4.5 Any new measures to minimise by-catches of salmon originating in the rivers of the other member *(North American Commission only)*

4.6 Any alterations to fishing patterns in a manner which results in the initiation of fishing or increase in catches of salmon originating in the rivers of another Party *(North American Commission only)*

4.7 Any actions to implement regulatory measures under Article 13, including imposition of adequate penalties for violations

5. Revisions or Planned Revisions to the Implementation Plan

Denmark (in respect of the Faroe Islands and Greenland)

Greenland

The Implementation Plan was last revised 13 February 2008. The changes are to be found in chapter 4.1.1. and 4.2.1.

European Union

Finland

New version of the Implementation Plan for Finland submitted to NASCO on Feb 11 2008

Sweden

A revision has been sent to the Commission during the year and an update of the plan will be carried out during 2008.

UK (England & Wales)

No change from the plan submitted in February 2008

UK (Northern Ireland)

The Implementation Plan was finalised in February 2007 for the period 2008 – 2012.

UK (Scotland)

- Revised implementation plan, which addressed the recommendations of the *Ad Hoc* Review Group and Scottish NGOs, submitted February 2008.
- Planned revision of the implementation plan to report on progress under Action 17 - Develop and publish the Strategic framework for Scottish Freshwater Fisheries, including a pfa on Mixed Stock Fisheries, by May 2008.

Norway

The measures concerning *Gyrodactylus salaris* will be updated as soon as possible after the new Action plan is approved, hopefully by the end of 2008.

USA

Revisions will be made to the introduction of the Implementation Plan that describes the management regime once the listing determination is finalized for the GOM DPS and associated critical habitat designation. This likely revision to the management

regime will also likely result in changes being made to the management actions throughout the Plan as necessary and appropriate. In addition, revisions will be made to the IP to reflect the creation of the Bureau of Sea Run Fisheries within DMR, as well as the development and implementation of the new salmon recovery framework. Revisions will also likely be made to the section on Homewater Recreational Fisheries and associated management actions during 2008.

Table 1: Official Catch Statistics

	Provisional 2007 Catch (Tonnes)	Provisional 2007 Catch according to Sea Age						Confirmed 2006 Catch (Tonnes)
		1SW		MSW		Total		
		No	Wt	No	Wt	No	Wt	
Canada *	112	37,500	64.0	10,300	48	47,800	112	137
Denmark (in respect of Faroe Islands and Greenland)	25	-	-	-	-	-	-	23
Faroe Islands	0	-	-	-	-	-	-	0
Greenland	25	-	-	-	-	-	-	23
European Union**	441	-	-	-	-	-	-	729
Iceland	122	-	-	-	-	-	-	114
Norway	767	78,165	139.9	108,042	627.2	186,207	767.1	931
Russian Federation	63	12,474	30.5	5,583	32.0	18,057	62.5	91
United States of America	0	-	-	-	-	-	-	0

* The breakdown of the Canadian catch is into the categories small (shown under 1SW) and large (shown under MSW) salmon.

** Breakdown of the catch by number and weight according to sea age is available for some EU Member States.

Table 2: Catches of Atlantic Salmon by the Parties to the NASCO Convention

	Canada	Denmark (Faroe Islands and Greenland)	European Union	Finland	Iceland	Norway	Russian Federation	Sweden	USA
1960	1636	60	2641		100	1576	1100	40	1
1961	1583	127	2276		127	1456	790	27	1
1962	1719	244	3894		125	1838	710	45	1
1963	1861	466	3842		145	1697	480	23	1
1964	2069	1539	4242		135	2040	590	36	1
1965	2116	861	3693		133	1900	590	40	1
1966	2369	1338	3549		110	1823	570	36	1
1967	2863	1600	4492		146	2058	883	25	1
1968	2111	1167	3623		162	1752	827	150	1
1969	2202	2350	4407		133	2083	360	76	1
1970	2323	2354	4069		195	1861	448	52	1
1971	1992	2511	3745		204	1847	417	35	1
1972	1759	2146	4261	32	250	1986	462	38	1
1973	2434	2402	4604	50	156	2126	772	73	3
1974	2539	1945	4432	76	265	1973	709	57	1
1975	2485	2086	4500	76	166	1754	811	56	2
1976	2506	1479	2931	66	225	1530	542	45	1
1977	2545	1652	3025	59	130	1488	497	10	2
1978	1545	1159	3102	37	291	1050	476	10	4
1979	1287	1694	2572	26	225	1831	455	12	3
1980	2680	2052	2640	34	249	1830	664	17	6
1981	2437	2602	2557	44	163	1656	463	26	6
1982	1798	2350	2533	83	147	1348	364	25	6
1983	1424	1433	3532	79	198	1550	507	28	1
1984	1112	997	2308	75	159	1623	593	40	2
1985	1133	1430	3002	49	217	1561	659	45	2
1986	1559	1490	3524	38	330	1597	608	53	2
1987	1784	1539	2593	49	250	1385	559	47	1
1988	1311	1136	2833	34	412	1076	419	40	1
1989	1139	701	2450	52	277	905	359	29	2
1990	912	542	1645	59	426	930	316	33	2
1991	711	533	1139	69	505	877	215	38	1
1992	520	260	1506	77	636	867	166	49	1

	Canada	Denmark (Faroe Islands and Greenland)	European Union	Finland	Iceland	Norway	Russian Federation	Sweden	USA
1993	373	35	1483	70	656	923	140	56	1
1994	355	18	1919	48	448	996	141	44	0
1995	259	86	1852	-	439	839	130	-	0
1996	290	92	1474	-	358	787	131	-	0
1997	229	59	1179	-	154	630	111	-	0
1998	157	17	1183	-	164	740	130	-	0
1999	152	19	1016	-	147	811	102	-	0
2000	153	29	1336	-	85	1176	124	-	0
2001	148	42	1407	-	88	1267	114	-	0
2002	148	9	1245	-	97	1019	118	-	0
2003	141	9	1012	-	110	1071	107	-	0
2004	161	15	978	-	130	784	82	-	0
2005	139	14	884	-	149	888	82	-	0
2006	137	23	729	-	114	931	91	-	0
2007	112	25	441	-	122	767	63	-	0

1. The European Union catch from 1995 includes the catches by Finland and Sweden.

2. The catch for Denmark (in respect of the Faroe Islands and Greenland) includes the catch for Greenland when it was a member of the European Union and the catches up to 1983 by Denmark.

3. Figures from 1986 are the official catch returns to NASCO. Figures to 1986 are based on data contained in the ICES Reports.

4. The Faroese fishery was subject to compensation arrangements in the period 1991-1998. The West Greenland fishery was subject to compensation arrangements in 1993, 1994 and since 2002. Under the compensation arrangements from 2002 a subsistence fishery is permitted.

Annex 2

Unreported catches

Year	**1999**	**2000**	**2001**	**2002**	***2003***	**2004**	**2005**	**2006**	**2007**
Canada	133	124	81	84	*118*	101	101	56	-
Denmark (Faroe Islands and Greenland)	10-15	10	10	11	*10*	11	11	11	12
European Union	215	240	169	165	*125*	116	114	95	72
Iceland	2	2	2	2	*2*	3	3	3	4
Norway	320-540	440-760	500-860	410-690	320-600	252-420	285-475	299-499	247 - 411
Russian Federation	237-255	249-309	200-252	166-206	99-152	110	70-103	70-103	25 - 77
USA	0	0	0	0	*0*	0	0	0	0
Total	**917-1,160**	**1,065-1,445**	**962-1,374**	**838-1,158**	***674-1,007***	**593-761**	**584-807**	**534-767**	**360 - 576**
Confirmed catch	2,247	2,903	3,066	2,636	*2,450*	2,150	2,155	2,025	1,530
% of reported catch	41-52%	37-50%	31-45%	32-44%	*27-41%*	28-35%	27-37%	26-38%	23-38%

* Note: 2007 data are provisional

Party	Estimate (tonnes)	Breakdown
Canada	No estimate provided	Unreported catch in Canada occurs essentially from illegal activities
Denmark (in respect of the Faroe Islands and Greenland)		
Faroe Islands	2	The unreported catch is the result of legal activities - recreational rod catches in rivers. The catch is limited by a licensing system, in which fishing licences are sold. The catch is reported to the Faroese Sportfishing Association, which informs the Ministry of Fisheries and Natural Resources.
Greenland	10	The estimated unreported catch of 10 tonnes is the result of legal activities.
European Union		
Denmark	-	No information.
Finland	10	Legal catches, negligible illegal catch.
Ireland	~8.5	Currently unreported catch is assumed to be less than 10% nationally. Predominantly rod fisheries (river)..
Sweden	1.8	Approximately 10% of total catch. Absence of requirement for catch statistics to be collected – 50% (0.9t) of total; illegal fishing – 30% (0.6t) of total; innocent inaccuracy in making returns – 20% (0.3t) of total.
UK – England and Wales	22	Estimates are not made for separate categories of unreported/illegal catch in England and Wales. The estimate includes under-reporting by both anglers and netsmen and illegal catches by all methods.
UK – Northern Ireland	7.1	Unreported catch in commercial fishery – zero; unreported catch in rod fisheries – 7.1t. The estimate is provisional and will be finalised in 2009. The estimate is based on the carcase tagging scheme and is robust and reliable. The unreported catch is estimated from non-return of logbooks issued for legal angling. The figure of 7.1t is included in the 2007 provisional catch.
UK – Scotland	22.1	Combination of legal and illegal activities.

Iceland	3.7	Unreported catch in freshwater and coastal areas has been estimated as 3% of the legal salmon catches. Such catches would be the result of illegal as well as legal netting activity for char as well as coast-clinging marine species. Based on an Icelandic survey an additional 10 % may be resulting from by-catches in pelagic trawls outside as well as inside the Icelandic EEZ. These are, however, not exclusively harvesting Icelandic origin salmon and are thus of international nature. One must also assume similar by-catches of salmon by vessels from other jurisdictions using similar gear.
Norway	329 (247 – 411)	Illegal catch in the sea: 82t; Legal catch in sea by angling: 66t; By-catch in commercial sea fishing: 16t; Illegal catch in rivers: 16t; Legal catch in sea by bag-net and bend net: 82 t; Legal catch in rivers, mainly by angling: 66 t
Russian Federation	25-77	Legal coastal fishery: 4-11t; Legal in-river fishery: 5-16 t; Illegal coastal fishery: 4 -12t; Illegal in-river fishery:12 – 38t (no data for Pechora River)
USA	0	As a condition of having a federal fishing permit, reporting bycatch is mandatory. There were no reports of Atlantic salmon in the mandatory logbooks completed and returned by fisherman. In addition, observers are placed on some fishing vessels to provide a third party estimate of bycatch. No observers documented the bycatch of Atlantic salmon in any fishery in 2007. Fisheries observers are trained in species identification, which should reduce the potential for misidentification. There is no evidence that Atlantic salmon are being illegally targeted and sold for local consumption. There have been reports of potential poaching in the rivers in Maine, however, it is infrequent and in some cases it could not be confirmed by law enforcement and therefore never prosecuted. When such reports are made law enforcement personnel increase their presence on the river.

Annex 3

Catch and release

Year	2000	2001	2002	2003	2004	2005	2006	2007
Canada	62,106	58,961	54,425	51,442	57,005	45,886	49,279	42,820
Denmark (Faroe Islands and Greenland)	0	0	0	0	0	0	0	0
European Union	27,346	33,504	32,984	34,968	55,064	60,145	62,812	82,977
Iceland	2,918	3,607	5,576	5,357	7,294	9,150	8,261	6,175
Norway	0	0	0	0	0	0	0	0
Russian Federation	12,624	16,410	25,248	33,862	24,679	23,592	33,380	44,341
USA	0	0	0	0	0	0	424	-
Total	**104,994**	**112,482**	**118,233**	**125,629**	**144,042**	**138,773**	**154,156**	**176,313**

Party	Estimated Number Released	*Comment*
Canada	42,820	Catch and release data are obtained directly from anglers through licence reports, angling surveys and logbooks.
Denmark (in respect of the Faroe Islands and Greenland)		
Faroe Islands	0	
Greenland	0	
European Union		
Denmark	959	Of 1,680 salmon caught, 959 were released. Information provided by local angling clubs..
Finland	0	
Ireland	13,893	The practice of catch and release has been increasing in recent years and in 2006, anglers returned 22% of the salmon catch taken by rod and line, up from 12% in 2005 and 10% in 2004. In 2007, river specific quotas were in place on 41 rivers. Anglers could not harvest more than the number of salmon available in the angling quota for a specific river. This resulted in many salmon being caught and released. A further six rivers were open for catch and release only in 2007. In total, 13,893 salmon were estimated to be caught and released from a total provisional estimated rod catch of 30,826, giving a provisional catch and release estimate of 45.1% for 2007.With river specific angling quotas in place on rivers, daily and season bag limits in place for anglers and some rivers only open on a catch & release basis, catch & release will represent a significant proportion of the Irish salmon catch into the future.
Sweden	No statistics available	
UK (England and Wales)	9,872	Provisional estimate for 2007 is 54% rof reported catch by anglers and includes 70 salmon released by net fisheries. Data obtained from statutory rod and net catch returns.

UK (Northern Ireland)	310	The extent of catch and release is monitored by data returned through the logbook schemes. In the FCB area this equated to 18.5% of fish caught in 2007 (Note: 2007 logbook data subject to revision and correction in 2008). Catch and release in the FCB area from 1 March to 31 May is mandatory. In the Loughs Agency area catch and release is practiced to some extent on a voluntary basis. A measure of catch and release is made on the River Bush (the main index river in NI). In 2007 the extent of catch and release as a percentage of total catch on the special stretches of the River Bush was around 29.8%, an increase on the previous year (22.9%). The River Bush information is generated through daily catch returns supplied by anglers to the River Bush Salmon Station.
UK (Scotland)	57,943	A provisional estimate of 61.3% of all salmon and grilse caught by rod and line. Information comes from the annual survey carried out by FRS on salmon and sea trout catches.
Iceland	6,175	17.3 % of the rod catch. This information is recorded in log books
Norway	Not reported	Salmon being caught and released is so far not reported in an organized manner in Norway. As mandatory and voluntary catch and release practices are becoming more widespread a reporting system for catch and release will be introduced in 2008.
Russian Federation	44,341	Data obtained from fishing reports and log books. Fishing right holders should run log books and report the number of fish landed and the number of fish released to the fisheries authorities on regular basis. Most of salmon were reported for Murmansk region. Only 17 fish were declared for catch-and-release in Archangelsk region. No recreational fishery was organised in Republic of Karelia and on the Pechora river in 2007 despite the fact that quotas for fisheries were established.
USA	424	A limited recreational fishery was conducted on reconditioned surplus broodstock released in the Merrimack River. In spring 2007, 479 (age 3 and 4) domestic broodstock were released for the fishery. In Fall 2007, an additional 1,081 (age 2) broodstock were released for a combined total release of 1,560 fish to support the fishery in the main stem of the Merrimack River and the lower portion of the Pemigewasset River. Angler data is not yet available for 2007, however, in 2006 anglers caught an estimated 434 fish, released 424, and kept 10 salmon. There is also a limited recreational fishery for reconditioned broodstock in the Shetucket and Naugutuck Rivers in the State of Connecticut. No data is available regarding how many salmon were caught, released, or kept. In 2007, the Maine Department of Marine Resources (DMR) again authorized a one-month experimental fishery in the fall on the Penobscot River. There was significantly less interest in this fall fishery in 2007 as compared with the fall of 2006, with only approximately 90 licenses sold. In addition to the fall fishery, DMR recently authorized a spring catch and release fishery on the Penobscot River for 2008. A discussion of the implications of the 2008 spring fishery that has been authorized is discussed in greater detail in the US Fisheries Management Focus Area report
TOTAL	**176,737**	