Council

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First Year Report on Actions under the U.S. Implementation Plan - Activities in 2007

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As part of the 'Next Steps' process, NASCO determined that it needed to develop a simpler and more transparent approach for reporting on progress on the implementation of NASCO's agreements. NASCO agreed that each Party or jurisdiction should develop an Implementation Plan (IP) for meeting the objectives of NASCO's agreements and should subsequently report to NASCO on actions taken to meet management objectives.

The Parties and Jurisdictions have invested a great deal of effort in developing IPs that include measurable outputs against which subsequent reports can be assessed. The benefits can only be realized, however, if annual reports are submitted that demonstrate progress on actions included in the IP. Submitting an annual report is a critical piece of the Next Steps process and essential to achieving the increased transparency and accountability that NASCO desires.

The Review Process for IPs and Related Special Sessions, drafted by the Next Steps Task Force in 2006, stated that Parties would submit annual reports under their IPs. The Guidelines for the Preparation of NASCO "Implementation Plans" and for Reporting on Progress NSTF(06)10 contained the following description of Annual Reports:

- Reports will be provided on an annual basis by each Party or relevant jurisdiction. The primary purpose of these reports is to provide a summary of all the actions that have been taken under the Implementation Plan in the previous year. In addition, any significant changes to the status of stocks, factors affecting stocks and the management regime in place should be included in the report. The annual report will therefore provide the following information:
    1. a statement of any significant changes to the management outlined in the introduction to the Plan;
    2. a description of significant changes to the status of stocks, and information on catches required under Articles 15.1 and 15.2;
    3. a description of new factors within the territory or area of fisheries jurisdiction which may significantly affect the abundance of salmon stocks;
    4. an account of actions taken under the four headings in section 4 of the Implementation Plan (Management Approach), including
        - the adoption or repeal in the past year of laws, regulations and programs relating to the NASCO objectives or any commitments to such measures, including management measures established or envisaged for homewater fisheries and their expected effects;
        - where appropriate, jurisdictions should also provide reports required under Article 14;
    5. proposed revisions to the Implementation Plan.

Furthermore, the July 2007 message from the Secretariat to the Heads of Delegation regarding arrangements for review of IPs and reporting stated that the Council had decided that reports on actions taken in accordance with the IPs should be provided in 2 formats: annual reports (written) and reports on focus areas (oral and written). Annual Reports were to describe changes

and actions under the IP and would replace and incorporate the current annual reporting under Articles 14 and 15 of the Convention. The primary purpose of the Annual Report was to summarize all the actions taken under the IP in the previous calendar year and identify any significant changes to the status of stocks, factors affecting the stocks and the management regime in place. The annual reports will also detail any proposed revisions.

The U.S. is concerned that reporting using the revised format circulated this year does not provide sufficient detail to allow tracking of progress on IPs. The new reporting format has five sections, as suggested in the Guidelines, however section 4 speaks generally to actions taken and is not directly linked to IPs. While we understand the desire to minimize the reporting burden on Parties and Jurisdictions, we believe that reporting directly against the actions in IPs is critical to the success of the Next Steps process. First, preparing such a report on an annual basis forces the Party/Jurisdiction to take stock of progress and readjust plans as needed. Second, it increases the transparency and accountability by allowing others to see what is being implemented, what problems may have been encountered, and what new issues may have arisen. Such reporting facilitates information exchange across Parties and helps us learn from each other, one of the main goals of NASCO and of the Next Steps process.

The U.S. has prepared the attached report to illustrate our thoughts on one approach to an Annual Report on IP progress. While we included all actions in our report, one suggestion has been made that to reduce the annual reporting burden and avoid duplication, the actions and activities associated with the Focus Area subject to an in-depth review could be removed from the annual report. For this year, therefore, the fisheries actions could be reported on only in the Focus Area Report and not the annual report. We welcome the views of the other Parties on the need for an annual report linked to the IP actions and on the format of such a report.

Report on Progress
Under the US Implementation Plan in 2007

1. *Significant changes to the management outlined in the introduction to the Plan*

There are a number of changes underway in the U.S. that will affect the management of salmon and activities that affect salmon. These changes are not final, however, so they do not warrant changes to the U.S. IP at this time. They are briefly described below and will result in change to the IP when they are finalized in 2008 or 2009.

The Services have undertaken a review of additional populations in larger river systems in Maine to determine their relationship to those populations already listed under the Endangered Species Act and to determine whether they also warrant protection. A determination regarding the listing status of these additional salmon populations is expected to be proposed in 2008 and finalized in 2009. 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. Currently NMFS is working on a proposal for designating critical habitat which includes describing the habitat features essential to the conservation of the species, identifying those activities that likely affect the identified habitat features, and conducting an economic analysis. It is expected that the NMFS will propose a critical habitat designation in the fall of 2008. Critical habitat designation will also change the management regime outlined in the IP.

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. 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 MDMR 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 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. The finalization and implementation of a new Atlantic salmon recovery framework is not yet complete, however, when it is, 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. This fishery was not authorized at the time the IP was written, thus it

was not included in the management regime description. 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.

2. Significant changes to the status of stocks, and information on catches required under Articles 15.1 and 15.2

There have been no significant changes to the status of stocks as described in the US Implementation Plan. The provisional and confirmed catch of Atlantic salmon for 2007 was zero.

a. Unreported Catch *(additional detail included in Section 4 of this Report as well as the U.S. Focus Area Report on Fisheries)*

Similarly there was no unreported catch of Atlantic salmon during 2007 as a result of either legal or illegal activities.

b. Catch and Release Fisheries

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. In 2006, 241 licenses were sold, 147 anglers complied with reporting requirements, and there were 247 angler trips reported. In 2007 90 licenses were sold, approximately 30 anglers complied with reporting requirements, and 83 angler trips were reported for 2007. In 2006 in the fishery on the Penobscot River, anglers had the opportunity to fish over at least 29 Atlantic salmon based on the catch of salmon at the Veazie trap. One Atlantic salmon was captured and released just after 7 a.m. on September 27th and an additional 14 Atlantic salmon raised/observed. In 2007, anglers had the opportunity to fish over at least 31 Atlantic salmon based on the catch of salmon at the Veazie trap. Three Atlantic salmon were captured and released and an additional 10 Atlantic salmon raised/observed.

3. New factors within the territory or area of fisheries jurisdiction which may significantly affect the abundance of salmon stocks (Article 15, paragraph 5(c))

The spring fishery authorized by the MDMR poses a biological risk to the population in the Penobscot given that no US rivers are meeting their conservation limits. The Penobscot is suffering reduced reproductive capacity.

4. **Actions taken under the four headings in section 4 of the Implementation Plan (Management Approach), including: the adoption or repeal in the past year of laws, regulations and programs relating to the NASCO objectives or any commitments to such measures, including management measures established or envisaged for homewater fisheries and their expected effects (Article 15, paragraph 5(a)); where appropriate, jurisdictions should also provide reports required under Article 14.**

   (See Attachment)

2007 Report on Implementation Actions Under the US Implementation Plan

Management Action	Achieved Management Action (Yes, No, Ongoing, Completed)
4.1 Fisheries Management	
4.1.1 Distant Salmon Fisheries	
4.1.1.1 Participate in the annual meeting of the WGC to negotiate a quota based on the scientific advice from NASCO (2007, 2008, 2009, 2010 and 2011).	Yes
4.1.1.2 Reach a multi-annual regulatory measure for the West Greenland Fishery (2007 and 2009)	Yes
4.1.1.3 Participate in annual sampling of the fishery off West Greenland (2007, 2008, 2009, 2010 and 2011).	Yes
4.1.1.4 Facilitate a continent of origin analysis on salmon sampled off West Greenland to determine composition of the mixed stock affected by the fishery (2007, 2008, 2009, 2010 and 2011).	Yes
4.1.1.5 Collaborate with Canada and France to implement sampling of the salmon fishery off St. Pierre et Miquelon and to conduct continent of origin analysis on the sampled fish (2007, 2008, 2009, 2010 and 2011).	Yes
4.1.1.6 Request a report on the Trust Fund established under the Conservation Agreement in Greenland (2007)	Completed
4.1.2 Homewater Recreational Fisheries	
4.1.2.1 Work with the MASC to monitor the fishery in order to ensure that the assumptions of the risk assessment are met and that the fishery does not have a significant impact on Atlantic salmon in the Penobscot River (2007)	Completed
4.1.3 Bycatch in Homewater Fisheries	
4.1.3.1 Review commercial fisheries log books and observer database for any records of Atlantic salmon (2007, 2008, 2009, 2010 and 2011).	Yes
4.1.3.4 Work with all state agencies to monitor incidental recreational catches and ensure that hooked salmon are released in an appropriate manner (2007, 2008, 2009, 2010 and 2011)	Yes
4.2 Protect and Restore Salmon Habitat	
4.2.1 Continue to populate NASCO Habitat Database with information from U.S. Rivers (2007, 2008, 2009, 2010 and 2011)	Yes
4.2.2 Conduct consultations on all federal actions in areas where Atlantic salmon EFH is designated and issue conservation recommendations to avoid, minimize or mitigate impacts to salmon habitat (2007, 2008, 2009, 2010 and 2011).	Yes
4.2.5 Conduct ESA Section 7 consultations on all federal actions in the GOM to determine and minimize impacts to endangered Atlantic salmonand their habitat (2007, 2008, 2009, 2010 and 2011)	Yes
4.2.6 Remain active and involved in the oversight of fish passage agreements on the Kennebec, Saco, and Penobscot rivers (2007, 2008, 2009, 2010 and 2011)	Yes
4.2.7 Remain active and involved in hydroelectric project relicensing at dams located within Atlantic salmon habitat in the U.S. and advocate for upstream and downstream fish passage facilities, as appropriate.	Yes

Management Action	Achieved Management Action (Yes, No, Ongoing, Completed)
4.3 Manage Aquaculture Introductions and Transfers	
4.3.1 Conduct annual audits of containment management systems (2007, 2008, 2009, 2010 and 2011)	Yes
4.3.2 Review results of genetic analysis to ensure compliance with permit condition that all smolts must be of North American origin (2007, 2008, 2009, 2010 and 2011).	Yes
4.3.3 Review marking plans to ensure compliance with permit conditions (2007, 2008, 2009, 2010 and 2011).	Yes
4.3.4 Prepare and implement mitigation plan in response to large losses from Canadian marine cages in the summer and fall of 2005 (2007).	Yes
4.3.5 Install and operate weirs and traps on selected rivers to intercept aquaculture escapees and conduct genetic and fish health assessments of any captured escapees (2007, 2008, 2009, 2010 and 2011).	Yes
4.3.7 Annually review audit results, loss reports, data on permit compliance, and data on escapees detected in rivers to determine if limits have been exceeded and if consultation needs to be reinitiated (2007, 2008, 2009, 2010 and 2011)	Yes
4.4 Re-stock rivers for restoration and recovery programs using a science-based hatchery program	
4.4.1 Review and update as necessary plans to manage broodstock to protect genetic integrity of restoration populations. (2007, 2008, 2009, 2010 and 2011)	Yes
4.4.2 Review and update as necessary stocking plans for each restoration river system to ensure compliance with the NASCO guidelines contained in the Williamsburg Resolution. (2007, 2008, 2009, 2010 and 2011)	Yes
4.4.3 Develop white paper proposing approaches for stocking in the DPS in order to optimize riverine production of hatchery fish and information gained on techniques and stock suitability (2007 and 2008).	Completed
4.4.4 Conduct independent peer review of conservation hatchery program as a recovery tool for the GOM DPS (2007 and 2008).	Completed
4.5 Action to be Taken in Relation to Other Influences	
4.5.1 Prepare literature review of species diversity and abundance in Atlantic salmon watersheds (2007).	Completed
4.5.2 Prepare review of linkages between Atlantic salmon and other species in order to better understand the relationships and prioritize actions for recovery (2007 and 2008).	Completed
4.5.6 Submit Status Review for Peer Review and determine if additional action under the ESA is warranted (2007 and 2008).	Ongoing
4.5.8 Complete analysis of experimental use of non-lethal harassment of comorants to determine effectiveness in increasing smolt outmigration success on the Narraguagus River (2008)	Completed

Management Action	Achieved Management Action (Yes, No, Ongoing, Completed)
4.1 Fisheries Management	
4.1.3 Bycatch in Homewater Fisheries	
4.1.3.2 Review of activities conducted and authorized by Maine IFW to determine potential of incidental take of Atlantic salmon and evaluate the effect of any potential take on recovery (2007 and 2008).	Ongoing (Need additional cooperation from IFW to achieve)
4.1.3.3 Work with Maine IFW to identify changes in regulations and practices that could avoid or minimize the take of endangered Atlantic salmon (2007 and 2008)	Ongoing (Need additional cooperation from IFW to achieve)
4.2 Protect and Restore Salmon Habitat	
4.2.3 Prepare maps and descriptions of critical habitat and provide these to local authorities and state agencies to encourage focus on protection, restoration, and enhancement of habitat in these areas (2008 and 2009)	Ongoing
4.2.4 Designate critical habitat for listed Atlantic salmon populations (2007 and 2008).	Ongoing
4.3 Manage Aquaculture Introductions and Transfers	
4.3.6 Establish communication procedure with Canada for rapid notification of any reported escapees (2007 and 2008).	Ongoing
4.5 Action to be Taken in Relation to Other Influences	
4.5.3 Implement the Penobscot River Restoration Project (PRRP; 2007, 2008, 2009, 2010 and 2011)	Ongoing
4.5.4 Prepare and implement restoration plan for the Penobscot River's diadromous fish populations in conjunction with PRRP (2007, 2008, 2009, 2010 and 2011)	Ongoing
4.5.5 Implement rigorous, pre-approval monitoring of the PRRP to evaluate the effects of dam removal and concomitant changes in ecological function (e.g., predatory-prey dynamics) following implementation (2007, 2008, 2009, 2010 and 2011)	Ongoing
4.5.7 In watersheds in which comprehensive diadromous fish restoration has already begun, continue to provide fish passage for American shad, alewife, blueback herring, sea lamprey, shortnose sturgeon, Atlantic sturgeon, American eel, and other diadromous species, as appropriate as well as other support activities such as habitat improvement and stock transplantation. (2007, 2008, 2009, 2010 and 2011)	Ongoing
4.5.9 Work with Canada and other partners to develop plan for SALSEA Greenland and SALSEA North America (2008).	Ongoing

Key:
Yes = Action with discrete activity in multiple years, Yes indicate the planned activities for 2007 were completed
Ongoing = Activity which requires action over multiple years in order to complete, ongoing means that the planned activity for 2007 was conducted and implementation is underway
Completed = All activity contemplated under the action has been conducted

4.1 Fisheries Management (Additional information with respect to fisheries management can be found in the US Fisheries Management Focus Area Report to NASCO)

Action 4.1.1.1 Participate in the annual meeting of the WGC to negotiate a quota based on scientific advice from NASCO (2007, 2008, 2009, 2010 and 2011) and
Action 4.1.1.2 Reach a multi-annual regulatory measure for the West Greenland Fishery (2007 and 2009)

- At the 2007 annual meeting of the WGC, it was decided based upon the status of the stocks and acceptance of the FWI, the 2006 multi-annual regulatory measure will remain in place for 2007 and will likely be retained in 2008 as well.

Action 4.1.1.3 Participate in the annual sampling of the fishery off West Greenland (2007, 2008, 2009, 2010 and 2011) and
Action 4.1.1.4 Facilitate a continent of origin analysis on salmon sampled off West Greenland to determine composition of the mixed stock affected by the fishery (2007, 2008, 2009, 2010 and 2011).

- At the 2007 meeting of the WGC, the United States agreed to continue to cooperate on a joint sampling program in 2007 to collect biological samples from the catch. The West Greenland sampling brochure and poster were also completed and displayed during the West Greenland Commission meeting.
- The samples collected as part of this effort have been analyzed for continent of origin in order to determine the composition of the mixed stock complex.

Action 4.1.1.5 Collaborate with Canada and France to implement sampling of the salmon fishery off St. Pierre et Miquelon and to conduct continent of origin analysis on the sampled fish (2007, 2008, 2009, 2010 and 2011)

The US continued to encourage France (in respect of St Pierre et Miquelon) to engage in NASCO issues. At the 2007 Annual meeting, the NAC proposed and Council agreed to invite France, in respect of St Pierre et Miquelon, to become a party to the NASCO convention.

Action 4.1.1.6 Request a report on the Trust Fund established under the Conservation Agreement in Greenland (2007) COMPLETED

- The US maintains an interest in the results of the Trust Fund established under the Conservation Agreement between KNAPK and NASF. The US received an updated report on the Trust Fund Agreement during 2007.

Action 4.1.2.1 Work with MASC to monitor the fishery in order to ensure that the assumptions of the risk assessment are met and that the fishery does not have a significant impact on Atlantic salmon in the Penobscot River (2007) COMPLETED

- In 2007, monitoring of the fall catch and release fishery indicated that the assumptiosn of the risk assessment were not violated and that the fishery did not have a significant impact on salmon in the Penobscot River.
- The MDMR again authorized a 1-month catch and release fishery on the Penobscot River. There was significantly less interest in this fall fishery in 2007, with a total of 90 licenses sold and about one third of the anglers complying with reporting requirements. A

total of 83 angler trips were reported. Anglers had the opportunity to fish over at least 31 Atlantic salmon based on the catch of salmon at the Veazie trap. Three Atlantic salmon were captured and released.

Action 4.1.3.1 Review commercial fisheries log books and observer database for any records of Atlantic salmon (2007, 2008, 2009, 2010 and 2011)

- In 2007, there were no reports of Atlantic salmon in the mandatory logbooks completed and returned by commercial fisherman. In addition, observers are placed on some commercial fishing vessels to provide a third party estimate of bycatch. No observers documented the bycatch of Atlantic salmon in any fishery in 2007.

Action 4.1.3.2 Review of activities conducted and authorized by Maine IFW to determine potential of incidental take of Atlantic salmon and evaluate the effect of any potential take on recovery (2007 and 2008) and
Action 4.1.3.3 Work with Maine IFW to identify changes in regulations and practices that could avoid or minimize the take of endangered Atlantic salmon (2007 and 2008) and
Action 4.1.3.4 Work with all state agencies to monitor incidental recreational catches and ensure that hooked salmon are released in an appropriate manner (2007, 2008, 2009, 2010 and 2011)

- In 2007, in an attempt to address bycatch issues in recreational fisheries in Maine, federal and state salmon management agencies met with inland fishery biologists to review any changes in inland fishery regulations and stocking plans within the GOM DPS. In the past, the MASC (now MDMR) has been able to work with Maine Inland Fisheries and Wildlife (MIFW) to promulgate regulations to provide protection for salmon from recreational fisheries in targeted locations where captures have been reported. For example, recently in response to a Maine District Game Warden concern of incidental capture of adult sea-run Atlantic salmon in the Penobscot River in the towns of Medway and Mattawamkeag, new regulations will be implemented in 2008. The new regulations for this area include a 25" length maximum on landlocked salmon, which should provide protection to multi-sea winter salmon, as well as a closure of all fishing 150' below the Medway Dam on the West Branch Penobscot River. Adult salmon (new sea run and kelts) tend to hold in the tailrace below the Medway Dam during spring and summer.
- In 2007, monitoring of angling and conservation web-site chat rooms have proven to be a useful means of documenting illegal adult salmon capture and identify areas where salmon seem to be more susceptible to incidental catch.
- In Connecticut, internet sites are monitored where anglers have documented catch, law enforcement staff patrol recreational fisheries and American shad commercial gillnet fishery sites for incidental salmon catch, biologists monitor recreational shad, striped bass, and trout fisheries and learn of salmon catches, and in some cases, they may intercept angler catches at river-side and take possession of fish.
- In New Hampshire, consulting company documents record when anglers return radio-tags for a reward, and New Hampshire Fish and Game Law Enforcement monitors anglers periodically for license and salmon permits to regulate the broodstock fishery in the Merrimack River.
- Massachusetts uses radio tags to track the location of fish and in some cases this has led them to an angler's freezer or to snowbanks alongside the road. Follow-up on reports

from anglers are also taken, and in a few cases catch and kill activities have been observed in the Merrimack River estuary leading to law enforcement repercussions.

4.2 Protect and Restore Salmon Habitat

Action 4.2.1 Continue to populate NASCO Habitat Database with information from U.S. Rivers (2007, 2008, 2009, 2010 and 2011)

- As of March 2007, 118 rivers have been entered into the database and it is estimated that another 22 streams (mostly minor) need to be entered and a few need to be deleted.
- During 2007 in an effort to collect impacts data for the NASCO Habitat Database, impacts information was collected from various state and federal agency personnel responsible for salmon management. This data is in the process of being entered into the database, it will likely be completed over the course of 2008.

Action 4.2.2 Conduct consultations on all federal actions in areas where Atlantic salmon EFH is designated and issue conservation recommendations to avoid, minimize or mitigate impacts to salmon habitat (2007, 2008, 2009, 2010 and 2011).

- During 2007, NMFS conducted 210 consultations on EFH designated for Atlantic salmon and issued conservation recommendations on avoiding, minimizing, and mitigating impacts to habitat with respect to specific projects. These consultations avoided or minimized potential effects to Atlantic salmon habitat.

Action 4.2.3 Prepare maps and descriptions of critical habitat and provide these to local authorities and state agencies to encourage focus on protection, restoration, and enhancement of habitat in these areas (2008 and 2009) and

Action 4.2.4 Designate critical habitat for listed Atlantic salmon populations (2007 and 2008).

- Currently NMFS is drafting a proposed critical habitat designation based on 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. An economic analysis has been conducted 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 proposed designation in the fall of 2008.

Action 4.2.5 Conduct ESA Section 7 consultations on all federal actions in the GOM to determine and minimize impacts to endangered Atlantic salmon and their habitat (2007, 2008, 2009, 2010 and 2011)

- During 2007, NMFS conducted 37 consultations on federal actions having the potential to impact endangered salmon in Maine.

Action 4.2.6 Remain active and involved in the oversight of fish passage agreements on the Kennebec, Saco, and Penobscot rivers (2007, 2008, 2009, 2010 and 2011) and

Action 4.2.7 Remain active and involved in hydroelectric project relicensing at dams located within Atlantic salmon habitat in the U.S. and advocate for upstream and downstream fish passage facilities, as appropriate.

- The Services continue to remain involved in the Penobscot River Restoration Project (PRRP) in 2007 including working on studies needed for the applications for dam removal.
- The Services also remained active in the Kennebec Settlement Accord which is a legally binding mechanism to improve fish passage in this river.
- The Services have also collaborated with federal and state agencies, Florida Power and Light Energy Maine Hydro (FPLE) and several environmental organizations in settlement discussions on fish passage in the Saco River. The Saco River Fisheries Assessment Agreement culminates 13 years of efforts to restore fisheries that are important to the communities along the river and their economies. NMFS developed a comprehensive plan to implement upstream and downstream fish passage for each diadromous species including monitoring, adaptive management and various ecological and biological studies. Specifically under the terms of the Saco River Agreement, FPLE agreed to install fish passages at its four remaining dams. This part of the project is expected to benefit, anadromous species such as salmon, which are now trapped and trucked upriver. They will be able to swim more than 40 miles upstream to historic spawning grounds, such as in the Ossipee River and other tributaries. Shad, alewife and blueback herring also are expected to return in greater numbers as habitat access expands. In addition, plans are to install separate passage facilities to accommodate juvenile eels, called elvers, which have different migrating behavior than these other species.
- Efforts in Maine to improve passage are also being made for a number of smaller rivers in Maine. On the Presumpscot River, a Settlement Framework Agreement has been negotiated as a prelude to an agreement which would provide for passage at one FERC non-jurisdictional dam and at five additional hydro power dams. On the Narraguagus River, DMR-BSRFH and partners have been working with the Town of Cherryfield to repair the fishway at the ice control dam. The town has consulted with FWS for engineering plans and the most affordable plan, to line the wood fishway with aluminum, is being pursued.
- On the Connecticut and Merrimack rivers, several fish passage improvement projects were completed, including the construction of a new fishway entrance at the Turners Falls Gatehouse Ladder and the addition of a digital videography system to improve monitoring of adult salmon passage at the Turners Falls and Vernon Fishways and of salmon smolt passage at the Rainbow Fishway. In 2007, the multi-agency New Hampshire River Restoration Task Force (NHRRTF) continued to work on identifying dams for removal in the state and pursuing strategic alterations and/or modifications of dams. There are two dams in the Merrimack River watershed scheduled for removal, the Merrimack Village Dam, Souhegan River, Merrimack, NH and the Black Brook Dam, Black Brook, Manchester, NH. A number of other passage improvements on dams in the Merrimack also continue to be achieved. In the Connecticut, the Raymond Brook and Zemko dams were removed.

4.3 Manage Aquaculture Introductions and Transfers

Action 4.3.1 Conduct annual audits of containment management systems (2007, 2008, 2009, 2010 and 2011) and
Action 4.3.2 Review results of genetic analysis to ensure compliance with permit condition that all smolts must be of North American origin (2007, 2008, 2009, 2010 and 2011) and
Action 4.3.3 Review marking plans to ensure compliance with permit conditions (2007, 2008, 2009, 2010 and 2011).

- During 2007, audits were conducted at 10 marine sites on the containment management systems (CMS) to verify that these sites are in compliance with the standards and to identify any problem areas that could result in an escape event. CMS audit scores for all facilities reviewed received a level 1 rating, indicating no remedial corrective actions were required.
- In 2007, over 2 million Atlantic salmon were stocked at four marine sites in Maine. Approximately 1.5 million smolts in the spring and over 700,000 parr in the fall were stocked into net pens for grow-out to market size for harvest. All fish stocked in 2007 were comprised of unique genetic groups distributed to the different active sites along with some of the fish stocked, (154,850) receiving a right ventral (RV) fin clip. These fish are all genetically marked and have been screened for diseases of concern and genetic origin pursuant to existing Army Corps of Engineers (ACOE) and Maine Department of Environmental Protection (MDEP) permits requiring that all fish be of North American origin and marked to the company and hatchery sub-lot level of specificity in 2007.

Action 4.3.4 Prepare and implement mitigation plan in response to large losses from Canadian marine cages in the summer and fall of 2005 (2007) and
Action 4.3.5 Install and operate weirs and traps on selected rivers to intercept aquaculture escapees and conduct genetic and fish health assessments of any captured escapees (2007, 2008, 2009, 2010 and 2011).

- In the summer and fall of 2005 there were two large escape events from Canadian marine cages. The US worked on a river by river basis to remove suspected aquaculture escapees as they appeared in the GOM DPS. In accordance with fish health protocols, samples for viral assay were taken from all escapees captured in the Dennys River (8 farmed origin escapees), and aquaculture origin fish captured in other rivers (i.e., 83 farmed origin escapes from the Magaguadavic and St. Croix rivers) in the fall of 2005. These samples were screened for fish health and were found to be free of pathogens (viral and bacterial). A pedigree line was established for the Dennys River broodstock to compensate for potentially high contribution of aquaculture origin parr in the broodstock collection, and to ensure the long-term maintenance of genetic diversity in the Dennys River broodstock.
- There were no reported escape events during 2007. However, in response to events such as the one that occurred in 2005 and potential events in the future, chain of custody protocols for proper handling of samples taken from putative aquaculture origin escapes captured in Maine Rivers were developed by the NMFS, USFWS and MDMR.

Action 4.3.6 Establish communication procedure with Canada for rapid notification of any reported escapees (2007 and 2008).

- During April of 2008, the US and Canada met to discuss a number of issues including aquaculture. Both countries agreed that within country notification must be made mandatory for escapes/breaches of containment and such notification should trigger a call between the Province and the State of Maine and between DFO and NMFS. Work is underway to finalize a protocol for notification across the border.

Action 4.3.7 Annually review audit results, loss reports, data on permit compliance, and data on escapees detected in rivers to determine if limits have been exceeded and if consultation needs to be reinitiated (2007, 2008, 2009, 2010 and 2011)

- Audit results, permit compliance and escapee data was reviewed in 2007, and it was determined that limits had not been exceeded and therefore consultation did not need to be reinitiated.

Action 4.4.1 Review and update as necessary plans to manage broodstock to protect genetic integrity of restoration populations. (2007, 2008, 2009, 2010 and 2011) and
Action 4.4.2 Review and update as necessary stocking plans for each restoration river system to ensure compliance with the NASCO guidelines contained in the Williamsburg Resolution. (2007, 2008, 2009, 2010 and 2011)

- Broodstock and stocking plans were reviewed in 2007 and determined to be appropriate and consistent with the NASCO guidelines.

Action 4.4.3 Develop white paper proposing approaches for stocking in the DPS in order to optimize riverine production of hatchery fish and information gained on techniques and stock suitability (2007 and 2008). COMPLETED

- In 2006 the Maine Atlantic Salmon Technical Advisory Committee's Ad Hoc Stocking and Re-introduction Work Group completed a white paper proposing approaches for stocking within the GOM DPS. The paper was completed and specifically provides an overview of a) a common glossary to technical terms, b) a synopsis of stocks available for stocking, c) clear hierarchically organized geographic management units, d) principles and protocols for assessing presence and absence of salmon, and e) a blueprint that balances risks and benefits of alternative strategies (including natural recolonization) and identifies best available stocks for potential reintroductions.

Action 4.4.4 Conduct independent peer review of conservation hatchery program as a recovery tool for the GOM DPS (2007 and 2008). COMPLETED

- In 2006 the MDMR, USFWS, and NMFS contracted Sustainable Ecosystems Institute (http://www.sei.org/) to conduct an independent program review to determine if current hatchery operations, protocols, and practices are scientifically sound, have potential to further recovery, and are integrated with population assessment and evaluation programs. 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. 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.

4.5 Action to be Taken in Relation to Other Influences

Action 4.5.1 Prepare literature review of species diversity and abundance in Atlantic salmon watersheds (2007) and COMPLETED

Action 4.5.2 Prepare review of linkages between Atlantic salmon and other species in order to better understand the relationships and prioritize actions for recovery (2007 and 2008). COMPLETED

- Historical assemblages of species present in salmon rivers and estuaries and the potential linkages to between these species and salmon were evaluated and published. The following four key linkages between Atlantic salmon and other diadromous fish communities were identified: 1) providing alternative prey for predators of salmon; 2) serving as prey for juvenile and adult salmon; 3) nutrient cycling; and 4) habitat conditioning. This paper suggests that restoration of the native populations of diadromous fishes may be required for successful salmon recovery.

Action 4.5.3 Implement the Penobscot River Restoration Project (PRRP; 2007, 2008, 2009, 2010 and 2011) and

Action 4.5.4 Prepare and implement restoration plan for the Penobscot River's diadromous fish populations in conjunction with PRRP (2007, 2008, 2009, 2010 and 2011)

- The Penobscot Trust and partners reached significant milestones in late 2007 by raising the $25 million needed to purchase the Veazie, Great Works and Howland Dams. Ten million dollars was provided through NMFS to the project from the fiscal year 2008 Congressional appropriations.
- In anticipation of the restoration potential of the PRRP, MDMR Bureau of Sea-Run Fisheries and Habitat in conjunction with MIFW have completed a draft strategic management plan for diadromous fish in the Penobscot. This plan includes four strategic goals: (1) coordinating management activities; (2)providing safe and effective upstream and downstream passage for diadromous fishes; (3) maintaining or improving abiotic (physical) and biotic habitat for diadromous fishes using ecosystem-based management; and (4) rebuilding diadromous fish populations.
- In March 2008, the Penobscot Interagency Technical Committee (PNITC) was formed to develop operational management plans for diadromous fish within the basin. Members of the PNITC include managers and scientists from MDMR, MIFW, NMFS, the Penobscot Indian Nation (PIN) and FWS.

Action 4.5.5 Implement rigorous, pre-approval monitoring of the PRRP to evaluate the effects of dam removal and concomitant changes in ecological function (e.g., predatory-prey dynamics) following implementation (2007, 2008, 2009, 2010 and 2011)

- NMFS, in working with a variety of partners, drafted a plan for long-term ecological monitoring of the Penobscot River which includes both pre and post dam removal studies in order to monitor the effect of dam.

Action 4.5.6 Submit Status Review for Peer Review and determine if additional action under the ESA is warranted (2007 and 2008).

- 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. A determination regarding the listing status of the expanded GOM DPS is expected in 2008.

Action 4.5.7 Continue to pursue restoration of runs of diadromous species (American shad, gizzard shad, alewife, blueback herring, sea lamprey, shortnose sturgeon, Atlantic sturgeon, and American eel) in Atlantic salmon watersheds where such has already begun and consider initiating such in other watersheds. Management measures include fish passage (both fishways and dam removals), habitat improvement, stock transplantation, and management of fisheries. (2007, 2008, 2009, 2010 and 2011)

- On the Kennebec River watershed, the focus has been on fish passage, stock transplantation (in advance of future fish passage projects), and American shad culture and release. Both shad and alewife populations have increased rapidly in response to these efforts.
- On the Merrimack River watershed, trap and transport of adult alewives and a nascent American shad culture program have been initiated to compensate for inefficient fishways.
- The Pawcatuck River program promotes shad, alewife, and blueback herring restoration through fish passage programs but has also received transplants from the Merrimack River.
- The Connecticut River program has over 30 years of history of restoring most of the listed diadromous species through an integrated program of fish passage, stock transplantation, and the total closure of some fisheries. The response has varied between species and over time, but overall the populations have increased since the beginning of the program.
- US scientists and managers at the US Atlantic Salmon Assessment Committee agreed at their 2008 annual meeting that restoration of all diadromous fish needs to be a priority for Atlantic salmon restoration; diadromous fish restoration and Atlantic salmon restoration need to be integrated into a broader program in support of each other; strategic planning including all diadromous fish biologist / manager partners is needed; the sequence of stock and species rebuilding could effect results; expectations about alosid restoration success needs to be managed; restoration activities and dam removals could complicate salmon assessment, requiring a shift in assessment and a need for different data collection; and a study of large waters is needed to examine restoration effects on lower river ecology. *(See 4.2.6-4.2.7 for additional information on improvements made in diadromous fish passage)*

Action 4.5.8 Complete analysis of experimental use of non-lethal harassment of cormorants to determine effectiveness in increasing smolt outmigration success on the Narraguagus River (2008) COMPLETED

- To assess whether cormorant predation rates could be reduced, cormorant harassment activities were undertaken in 2004 and 2005 using various pyrotechnics, lasers, and human/boat activities. These endeavors effectively displaced cormorants from feeding locations and data suggest that the predation rate on emigrating smolts in the Narraguagus River, Maine was lowered. A draft manuscript has been prepared.

Action 4.5.9 Work with Canada and other partners to develop plan for SALSEA Greenland and SALSEA North America (2008).

- The US has worked with Canada to develop a study plan for SALSEA North America, has committed to provide scientists to participate in the sampling cruise and has provided funding for various equipment needs and sample analysis.
- The US has developed a plan for expanded sampling at West Greenland to gather additional information from the fish taken in the internal use only fishery.

5. ***Proposed revisions to the Implementation Plan***

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.

We propose to make the following correction to Section 3.3.2 "Commercial Aquaculture":

"…Escapees and resultant interactions with native stocks are expected to continue to occur within the range of the GOM DPS given the continued operation of farms ~~and growth of the industry~~. Recent containment protocols and audits have greatly decreased the incidence of losses from hatcheries and pens ~~however large escapes still occur~~."

We also propose to make the following correction to Action 4.5.7 from: "In watersheds in which comprehensive diadromous fish restoration has already begun, continue to provide fish passage for American shad, alewife, blueback herring, sea lamprey, shortnose sturgeon, Atlantic sturgeon, American eel, and other diadromous species, as appropriate as well as other support activities such as habitat improvement and stock transplantation. (2007, 2008, 2009, 2010 and 2011)"

to: "Continue to pursue restoration of runs of diadromous species (American shad, gizzard shad, alewife, blueback herring, sea lamprey, shortnose sturgeon, Atlantic sturgeon, and American eel) in Atlantic salmon watersheds where such has already begun and consider initiating such in other watersheds. Management measures include fish passage (both fishways and dam removals),

habitat improvement, stock transplantation, and management of fisheries. (2007, 2008, 2009, 2010 and 2011)”