



Agenda item 6.3
For information

Council

CNL(17)26

***Annual Progress Report
on Actions Taken Under the Implementation Plan for the Calendar Year 2016***

Canada

CNL(17)26

Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2016

The primary purposes of the Annual Progress Reports are to provide details of:

- any changes to the management regime for salmon and consequent changes to the Implementation Plan;
- actions that have been taken under the Implementation Plan in the previous year;
- significant changes to the status of stocks, and a report on catches; and
- actions taken in accordance with the provisions of the Convention

These reports will be reviewed by the Council. Please complete this form and return it to the Secretariat **no later than 24 March 2017**.

Party:	Canada
Jurisdiction/Region:	

1: Changes to the Implementation Plan
1.1 Describe any proposed revisions to the Implementation Plan (Where changes are proposed, the revised Implementation Plans should be submitted to the Secretariat by 1 December).
No changes are proposed for 2017.
1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.
<u>Forward Plan for Atlantic salmon</u> In June 2016, Canada released the <i>Forward Plan for Atlantic Salmon</i> . This document (available at http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/comm/forwarding-plan-eng.html) was designed to advance the recommendations of the Ministerial Advisory Committee on Atlantic Salmon (MACAS), which completed its work in June, 2015 (http://www.dfo-mpo.gc.ca/media/infocus-alaune/2015/salmon/MACAS-CCMSA-eng.htm). Specifically, the Forward Plan responds to MACAS's 61 recommendations which address conservation, enforcement, science, and international issues. Key highlights of the plan include reviewing the Wild Atlantic Salmon Conservation Policy and improving the coordination of science and research related to wild Atlantic salmon through an Atlantic Salmon Research Joint Venture (detailed below). <u>Updating Canada's Wild Atlantic Salmon Conservation Policy</u>

Canada has engaged with key stakeholders to review and revise its existing Wild Atlantic Salmon Conservation Policy, which was originally published in 2009. Federal, provincial and territorial officials have teamed up with stakeholders from the angling community, First Nations and indigenous groups and other conservation based organizations to work collaboratively in updating the document. Specifically, the Working Group is modernizing the existing Policy to create a platform for future Canadian decision making regarding wild Atlantic salmon.

Following domestic consultations with stakeholders, the updated policy will be presented for Ministerial review in 2017. Publication would soon follow.

Next steps for Canada include the formulation of regionally focussed policy implementation plans. As there are extremely varying degrees of returns throughout Canada's North-South geographic range, Canada anticipates beginning a process to collaboratively, along with stakeholder participation, create these regionally distinct implementation plans in the near term.

Atlantic Salmon Joint Venture

As part of the *Forward Plan for Atlantic Salmon*, DFO is tackling low returns in Atlantic Canada by supporting the Atlantic Salmon Research Joint Venture, which was launched in October, 2016. As Canada's first collaborative research forum for wild Atlantic salmon, it brings together experts from the Government of Canada, the United States, Indigenous groups, provincial agencies, non-governmental organizations, academic institutions and other stakeholders to prioritize scientific research and data and information-sharing. The venture's goals are to improve the coordination of science and research related to wild Atlantic salmon, such as at-sea-survival. The Joint Venture will help fill the gap that exists between science happening at the watershed level and efforts taking place through international forums like NASCO.

Canada is investing to additional science staff to contribute to the overall success of the venture and the species. By bringing together top scientific and conservation experts under one umbrella, the venture is intended to promote the sharing of scientific research with the goal of conserving and rebuilding the species.

2: Stock status and catches.

2.1 Provide a description of any new factors which may significantly affect the abundance of salmon stocks and, if there has been any significant change in stock status since the development of the Implementation Plan, provide a brief (200 word max) summary of these changes.

Nothing to report.

2.2 Provide the following information on catches:(nominal catch equals reported quantity of salmon caught and retained in tonnes 'round fresh weight' (i.e. weight of whole, ungutted, unfrozen fish) or 'round fresh weight equivalent').

(a) provisional nominal catch (which may be subject to revision) for 2016 (tonnes)	In-river	Estuarine	Coastal	Total
	92.3 t	35.5 t	7.0 t	134.8 t

(b) confirmed nominal catch of salmon for 2015 (tonnes)	96.9 t	35.2 t	8.2 t	140.3 t
(c) estimated unreported catch for 2016 (tonnes)				Provisional: 27.4 t
(d) number and percentage of salmon caught and released in recreational fisheries in 2016.	<p>Estimated number (%) of salmon released:</p> <p>Total: 69,950 sized combined (65% of all salmon handled)</p> <p>Large salmon: 31,268 (95% of large salmon handled)</p> <p>Small salmon: 38,322 (51% of small salmon handled)</p>			

3: Implementation Plan Actions.

3.1 Provide an update on progress against actions relating to the Management of Salmon Fisheries (Section 2.8 of the Implementation Plan).

Note: The reports under 'Progress on Action to Date' should provide a brief overview with a quantitative measure of progress made. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.

Action F1:	Description of Action (as submitted in the IP)	<p>Fisheries management measures introduced to compensate for low marine survival include:</p> <ul style="list-style-type: none"> • Reduced daily and season bag limits; • Mandatory catch and release fishing, especially of large salmon; • Salmon fishing closures in areas where the CSRs are not being met; and, • Restrictions on commercial pelagic fisheries to stop or minimize salmon by-catch, including moving these fisheries in time and space and modifying the fishing gear to avoid migrating salmon. <p>In addition, Canada's fisheries managers have asked for a science-led review of reference points for Atlantic salmon which conforms to the Precautionary Approach (PA) for all areas of eastern Canada.</p>
	Expected Outcome (as submitted in the IP)	<p>Fisheries management measures are designed to maintain or improve numbers of salmon returning to Canadian rivers.</p> <p>A consistent approach to Atlantic salmon reference points which conform to the PA will improve management of Atlantic salmon fisheries and overall conservation of the species.</p>
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>Management actions:</p> <p><u>New Brunswick, Nova Scotia and Prince Edward Island:</u></p>

		<p>Restrictive management measures implemented in the 2015 recreational fishery (total catch and release, gear restrictions) and reported in Canada's 2015 APR were maintained for the 2016 season. See the 2016 management measures in the Atlantic salmon fishery: http://www.inter.dfo-mpo.gc.ca/Gulf/FAM/Recreational-Fisheries/Rec-Salmon-Conservation-Measures-2016</p> <p><u>Newfoundland and Labrador</u></p> <p>In Newfoundland and Labrador, Atlantic salmon had been managed on a 5 year management/science assessment cycle. The last full stock assessment of Atlantic Salmon (<i>Salmo salar</i>) in the Newfoundland and Labrador (NL) Region was completed by Fisheries and Ocean's Canada (DFO) in 2015, accounting for 2013 returns. An annual update of stock status is prepared in interim years to provide data and information to DFO Fisheries Management and the general public (DFO 2016).</p> <p>Declines in total returns (>30%) on more than half of monitored rivers in 2016 warranted conducting a stock assessment which was completed in March 2017.</p> <p>Based on the recommendation of the Ministerial Advisory Committee on Atlantic salmon, the Newfoundland and Labrador region will be moving to a 2-year management/science assessment cycle.</p> <p>The latest science advice will be presented to stakeholders for input in late March. A decision on management measures will be taken after stakeholder consultations.</p> <p><u>Québec</u></p> <p>The new Quebec Atlantic salmon management plan 2016-2026 has been implemented (http://www.mffp.gouv.qc.ca/faune/peche/plan-gestion-saumon.jsp). It includes some fishing rules that are set individually for each river before the season opening, so as to maintain a maximum number of rivers above their upper reference point and a minimum of rivers below the lower reference points.</p>
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		<p>Release of large salmon is compulsory during the first half of the fishing season. From mid-summer, retention of large salmon can be allowed in rivers that reached the upper reference point during the last five years, but only if mid-summer assessments indicate that these particular populations are about to surpass a management target set above the upper reference point during the ongoing season. Release of large salmon is mandatory on rivers that do not reach the upper reference points. Fishing is closed in rivers below the lower reference points. New general measures include a daily catch limit reduced from 1, 2 or 3 salmon to 1 or 2 salmon, depending of the river's status. A daily limit for catch and release has been set to 3 salmon. The annual limit will be reduced from 7 salmon, large or small, to 4 salmon, including a single large salmon, as soon as the procedure for this particular regulatory change allow. Some exceptions to these general and river specific measures may apply.</p> <p>In 2016, the implementation of this management plan contributed to a large salmon harvest reduction of 35% compared to the average of the last 5 years, while the rivers frequentation by anglers and well as the fishing success integrating catch and released are among the highest since the last 20 years (Note – In Quebec, the Department of Ministry of Forests, Wildlife and Parks is responsible for salmon management).</p>
	Current Status of Action	Completed
	If 'Completed', has the Action achieved its objective?	Yes
Action F2:	Description of Action (as submitted in the IP)	<p>Canadian fisheries scientists and managers are already dealing with aquatic invasive species (AIS) using whatever tools are currently available. In some cases, these tools may not be adequate, and it is becoming more difficult to find resources to address all AIS issues. Fisheries and Oceans Canada is working with provincial and territorial partners to develop a national framework and regulations to manage the threat of AIS. The regulations will complement existing authorities and bridge gaps to enable a broad range of AIS management activities. This initiative will accommodate localized AIS issues, as well as provide a national framework for managing and controlling AIS in Canada. Biological risk assessments will identify those species that pose a risk based on probability of arrival, survival and establishment with</p>

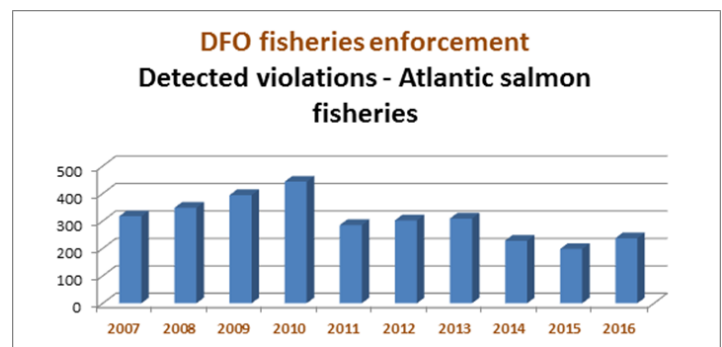
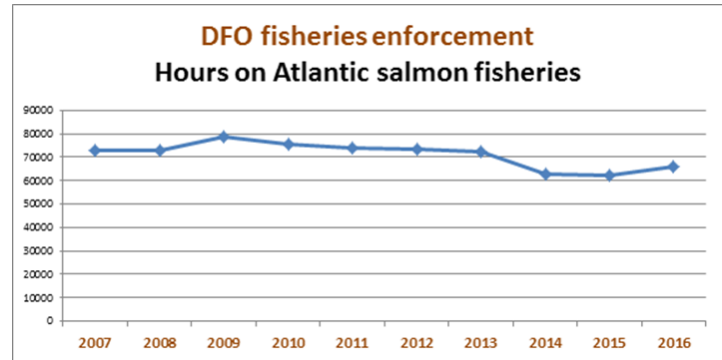
		<p>ecological impacts. The proposed regulation will list AIS by geographical area, prohibit the live import, transport and possession of listed AIS, provide management authorities with a wide range of AIS control and eradication activities, including the use of deleterious substances, and enhance the ability to direct activities (including enforcement) to high risk areas. Along with these regulations, education and public awareness are considered key to achieving success.</p> <p>With respect to the increasing presence of rainbow trout in Quebec waters, at Canada's request in 2012, NASCO added a question for ICES advice on the impact of this "exotic salmonid's" expansion outside of its natural habitat through human intervention. This advice will guide actions, where necessary, to control this invasive species.</p> <p>In Nova Scotia, the provincial government enacted <i>Live Fish Possession Regulations</i> in 2012 to prohibit possession of live fish unless authorized, and has closed fishing for smallmouth bass where they are not found, to remove the incentive for illegal introductions.</p> <p>A three-year (2010-2012) containment and eradication plan is in place to control the spread of smallmouth bass in the Miramichi Lake and to eventually eradicate them from the watershed. The plan includes the use of barriers to contain the smallmouth bass, physical removal by intensive fishing and electrofishing, and location and removal of nests.</p>
	Expected Outcome (as submitted in the IP)	The national framework and regulations are being designed to support management activities aimed at preventing the introduction of AIS into Canada and controlling the spread of AIS if they are introduced.
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>As reported in Canada's 2015 ARP, Canada's federal Aquatic Invasive Species Regulations came into force May 29th, 2015.</p> <p>DFO is working with stakeholders to determine the course of action in the Miramichi lake smallmouth bass issue. An international expert opinion has been requested for 2017 and a detailed report will assess options to eradicate invasive smallmouth bass from the lake connected to the Miramichi River in New Brunswick.</p>

	Current Status of Action	AIS Regulations Completed. Smallmouth bass containment/eradication efforts in Miramichi Lake are ongoing.
	If 'Completed', has the Action achieved its objective?	Yes for AIS Regulations
Action F3:	Description of Action (as submitted in the IP)	Reduction and elimination of acid rain-causing emissions are the ideal goals to mitigate losses of wild Atlantic salmon due to acidification. In the meanwhile, liming of watercourses is recognized as an acidification mitigation technique that provides benefits to salmon. In Nova Scotia, the Atlantic Salmon Federation (ASF) has been very involved with liming projects e.g. in West River, Sheet Harbour. The ASF and others have operated an automated lime doser for approximately 6 years.
	Expected Outcome (as submitted in the IP)	The liming project in West River has had very positive results. Parr numbers have increased by more than 300% and new sections of the river are being recolonized. Liming can be fairly expensive and must be done repeatedly as long as the source of acidity remains.
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>This Nova Scotia Salmon Association project is in its 12th consecutive year. Over \$1M has been spent on the project to date with over 18,500 volunteer hours. The objectives of increasing the pH (target pH of 5.5) and increasing production has been achieved.</p> <p>Biological monitoring occurred through 2016 and increased smolt production was seen on the main branch – from 3000 smolts to 10,000-12,000 smolts. An adult assessment facility was installed on the limed main branch and an unlimed tributary in July 2015. The main branch site uses a resistance weir board design; the first of its kind on the east coast of Canada. Trap design and site-specific installation has required modifications. The was operated for its first full season in 2016 and was fished from June until late November, however extreme dry conditions July-Oct forced the trap to be shut down for much of the summer and early fall. A rain storm Oct. 10 dropped 120mm of rain in a 24 hour period; flooding the river. Salmon were observed circumventing the traps and thus the count was incomplete.</p> <p>A full time research scientist has been hired (start April 2016) for a three year period to expand the project and lead strategic research projects. A second lime doser has been purchased and will be install</p>

		spring 2017. This second lime doser is twice the size of the original West River doser and is to be installed on the Killag River (largest West River tributary) and will directly treat 1675 salmon habitat units and will combine with the existing West River doser to treat another 2040 habitat units. A moderate scale (66 ha) catchment liming project was conducted in fall 2016. This project used helicopters to spread 625 tonnes of lime in the headwaters of a small acidified tributary of the West River. Early monitoring results suggest that both acidity and labile (toxic form) aluminium are now at acceptable levels for Atlantic Salmon.
	Current Status of Action	Ongoing
	If 'Completed', has the Action achieved its objective?	Yes
Action F4:	Description of Action (as submitted in the IP)	<p>Education of the public about the importance of Atlantic salmon conservation is considered very important, as those with a stake in the resource will assist in deterring poaching.</p> <p>Regular patrols by federal fishery officers and provincial conservation officers, as well as undercover work and tips from the public are all used to detect and catch poachers. Fisheries and Oceans Canada has worked with its lawyers in recent years to educate the court system and judges about the seriousness of salmon poaching and its effects on Atlantic salmon populations. As a result, heftier fines and other penalties are now being imposed by the courts, which is a further deterrent.</p>
	Expected Outcome (as submitted in the IP)	Decreased incidence of poaching
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>Fisheries and Oceans Canada Gulf Region published an educational Internet page on how to properly release Atlantic salmon in the recreational fishery, also containing links to similar information offered by partners and stakeholders. The page can be accessed at the following link: http://www.inter.dfo-mpo.gc.ca/Gulf/FAM/Recreational-Fisheries/Atlantic-Salmon-Catch-Release</p> <p>Enforcement 2016 – Atlantic Salmon (Note: Statistics are broken down by DFO Region. For a map of Regional boundaries refer to http://www.dfo-mpo.gc.ca/regions/index-eng.htm). (Note – In Quebec, the Department of Ministry of</p>

Forests, Wildlife and Parks is responsible for salmon management and enforcement).

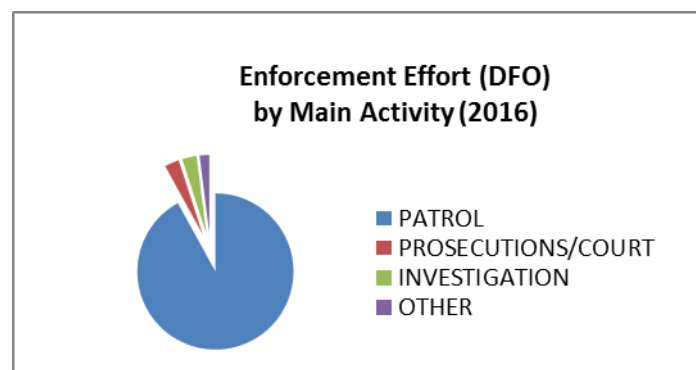
Enforcement trends (2007-2016):



Enforcement Statistics 2016

Activities:

DFO Region	Hours	Fishers checked	Fishing Sites checked
GULF	7,410	1,963	7,672
MARITIMES	5,047	494	5,377
NEWF & LAB	52,820	5,149	10,300
QUEBEC	46,260		
Grand Total	111,537	7,606	23,349



		<u>Detected Violations:</u>	
		Region	Total
		GULF / GOLFE	30
		MARITIMES	37
		NEWFOUNDLAND & LABRADOR	170
		QUEBEC	135
		Grand Total	242
		by Action Taken	Total
		CHARGES LAID	178
		CHARGES NOT APPROVED	3
		CHARGES PENDING/UNDER REVIEW	70
		NATIVE PROTOCOL	4
		SEIZURE(S) - PERSONS UNKNOWN	33
		TICKET ISSUED	12
		WARNING ISSUED	72
Grand Total	372		
by Violation Type	Total		
OTHER LEGISLATION	15		
AREA / TIME	107		
ASSAULT/ OBSTRUCT	5		
GEAR - ILLEGAL/ USED ILLEGALLY	95		
GEAR CONFLICT	0		
HABITAT	3		
ILLEGAL BUY/SELL/POSSESS	64		
INSPECTION	0		
REGISTRATION / LICENCE	80		
QUOTA / BAG LIMIT	3		
Grand Total	372		
Current Status of Action	Ongoing		
If ‘Completed’, has the Action achieved its objective?	N/A		
Action F5:	Description of Action (as submitted in the IP)	Current Integrated Fisheries Management Plans (IFMP) for Atlantic salmon and commercial pelagic fisheries provide information on measures that are being taken to reduce salmon by-catch. As a general rule, wild Atlantic salmon that are caught incidentally in any fishery cannot be retained and must be returned to the water in a manner that causes the least harm to the salmon. In addition, Canada is moving towards a more rigorous catch monitoring and reporting regime that will encompass all catches, including by-catch and discards, as set out in Fisheries and Oceans Canada’s <i>Policy on Managing By-catch</i> .	
	Expected Outcome (as submitted in the IP)	Implementation of the policy, with ongoing monitoring of salmon by-catch and further	

		improvements in management measures to avoid such by-catch, will enhance Atlantic salmon conservation.
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>Implementation of the Policy continues. Measures already in place to support the Policy include:</p> <ul style="list-style-type: none"> • Restrictions on the use of monofilament herring and mackerel gill nets when salmon are present. • Depth requirements for groundfish gill nets. • Mandatory reporting of bycatch in certain commercial fishing logbooks (gaspereau, shad, eels, smelt, etc.). • Areas closed to the use of gill nets. • Delayed season openings in many salmon producing rivers to prevent the bycatch of salmon under the guise of trout angling. <p>Complete angling closures to all species in areas where salmon are vulnerable and stocks are at such low levels that they can't support an open salmon angling season.</p>
	Current Status of Action	Ongoing
	If 'Completed', has the Action achieved its objective?	N/A

3.2 Provide an update on progress against actions relating to Habitat Protection and Restoration (Section 3.4 of the Implementation Plan). <i>Note: The reports under 'Progress on Action to Date' should provide a brief overview with a quantitative measure of progress made. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.</i>		
Action H1:	Description of Action <i>(as submitted in the IP)</i>	Focussed Legal Protection <p>The Fisheries Act was amended in 2012 to focus on providing for the sustainability and ongoing productivity of recreational, commercial and Aboriginal fisheries. This will require updated policy and decision-making frameworks.</p> <p>Fisheries and Oceans Canada's new Fisheries Protection Program will administer provisions of the Fisheries Act related to managing effects on fish and fish habitat, i.e., the fisheries protection provisions. Fisheries Protection Program staff will focus on managing specific activity and development types. Staff has been organized into teams that will focus on, among other areas: linear development including transportation infrastructure; marine and coastal development including coastal land use such as agriculture and forestry; and mining. These teams will develop specialized expertise to effectively address threats to important fisheries listed in section 3.3: transportation infrastructure, agriculture, forestry, and mining. To address these threats to fisheries, teams will complete several types of actions: development of standards for protection (to be enshrined in policy and regulation); implementation of regulatory requirements including regulatory reviews of development projects and activities under the Fisheries Act and the Species at Risk Act; and identification and protection of important habitats.</p> <p>In addition, a recovery strategy has been developed for the Inner Bay of Fundy Atlantic Salmon populations, under the Species at Risk Act. This document is intended to provide a strategy for the planning and implementation of recovery for Inner Bay of Fundy Salmon. It defines the goal for recovery of the species and outlines objectives to achieve this goal. It identifies activities to be undertaken as well as areas where knowledge is lacking and further information is required. It also includes a description of the species and its needs, and identifies the threats to its survival and recovery.</p>

		Activities planned for 2013-2018 to implement the recovery strategy include: progress towards identification of critical habitat in the marine environment which is currently a knowledge gap, and protection of critical habitat identified for the population. As well, three federal funding programs provide ongoing support to conservation and enhancement activities for this population: the Atlantic Salmon Endowment Fund (ASEF), Habitat Stewardship Program (HSP), and the Aboriginal Funds for Species at Risk (AFSAR) program.
	Expected Outcome (as submitted in the IP)	Enhanced protection of recreational, commercial and Aboriginal fisheries, improved information sharing between Fisheries Protection officials, and clear, focused risk based decision making processes.
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>DFO continues to work with its many partners to implement the Recovery Strategy for the Atlantic Salmon, Inner Bay of Fundy (iBoF) population (http://sararegistry.gc.ca/document/default_e.cfm?documentID=1917). First published in 2010, the Recovery Strategy provides lead federal departments, DFO and Parks Canada Agency, and all other partners with strategic direction for the planning and implementation of recovery. The Recovery Strategy includes a recovery goal for the species and outlines objectives to achieve this goal. It describes the species and its needs, identifies threats, and identifies areas of freshwater critical habitat required for survival and recovery. Amendments to the published Recovery Strategy are underway some of which include the identification of estuarine and marine critical habitat, the addition of the Petitcodiac River as critical habitat, and a description of residence (i.e., redds).</p> <p>In conjunction with the Recovery Strategy, a proposed Action Plan for the iBoF Atlantic Salmon has also been prepared and published to the Registry http://www.registrelep-sararegistry.gc.ca/document/default_e.cfm?documentID=2936). This Action Plan outlines the specific recovery measures needed to address all five of the Recovery Strategy objectives. For each recovery measure, it also outlines who will be involved and the associated timeline for completion.</p> <p>Some of the activities planned to implement the Recovery Strategy and Action Plan during 2016-2020</p>

	<p>include: establishing a Critical Habitat Order to protect the identified critical habitat, continuation of the Live Gene Bank program to conserve genetic characteristics and help re-establish self-sustaining populations, marine rearing of wild Fundy National Park salmon, continuation of river specific monitoring and recovery activities, and examining the relationship between marine survival and identified marine threats.</p> <p>A draft <i>Report on Progress of Recovery Strategy Implementation for the Atlantic Salmon, inner Bay of Fundy Population in Canada for the Period May 2010-May 2015</i> is also under development and will be available on the Species at Risk Public Registry once completed. This report outlines all the activities undertaken since the publication of the Recovery Strategy in 2010 in support of its recovery objectives. During the time period covered by this report, progress has been made in the ongoing activities of DFO's Live Gene Bank (LGB) program, research and monitoring activities in index rivers, implementation of a new 'High Ancestry' LGB program for Fundy National Park rivers as well as marine rearing projects for both Fundy rivers and the Petitcodiac River, the establishment of new partnerships, ongoing implementation of species and habitat protection and management measures, and numerous stewardship and outreach activities in local watersheds.</p> <p>The following three federal funding programs provide ongoing support to conservation and recovery activities for this population and its habitat:</p> <p>1) <u>Habitat Stewardship Program (HSP)</u></p> <p>In 2016-17, the HSP allocated \$294,410.00 to seven (7) projects for the conservation and recovery of Atlantic Salmon populations.</p> <p>In addition to federal funding, program Recipients and their partner organizations contributed \$445,984.00 of cash or in-kind support to these projects, bringing the total value of work to approximately \$740,394.00.</p> <p>Regionally speaking, projects were carried out in the Atlantic Provinces, and focused on salmon populations found on Eastern Prince Edward Island; Inner Bay of Fundy; in the Mira River; in the</p>
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		<p>Petitcodiac River; in the Hammon River; and in the Stewiacke River.</p> <p>2) <u>Aboriginal Funds for Species at Risk (AFSAR)</u></p> <p>In 2016-17, the AFSAR program allocated \$406,850.00 to nine (9) projects involving Atlantic Salmon. Seven (7) of these projects directly targeted Atlantic Salmon populations, with activities including population monitoring and assessment, habitat stewardship and enhancement, and outreach and education.</p> <p>In addition to federal funding, AFSAR recipients and their partner organizations contributed as much as \$509,347.00 in cash or in-kind support, bringing the total value of the projects to approximately \$916,197.00</p> <p>Regionally speaking, these AFSAR projects were carried out in Quebec and the Atlantic Provinces, and focused on at risk salmon populations along the Western North Shore of Quebec; the Inner Bay of Fundy; in the Midgell River; and in Middle River and other Cape Breton salmon streams.</p> <p>3) <u>Recreational Fisheries Conservation Partnerships Program (RFCPP)</u></p> <p>In 2016-17, \$3 million was contributed to 55 projects in Atlantic Canada in 2016-17 that restored Atlantic Salmon habitat. Projects were funded in Québec (5 projects valued at \$1,051,046), New Brunswick (20 projects valued at \$659,522), Prince Edward Island (7 projects valued at \$309,554), Nova Scotia (16 projects valued at \$859,989) and Newfoundland and Labrador (7 projects valued at \$111,655).</p>
	Current Status of Action	Ongoing
	If Completed, has the Action achieved its objective?	N/A
Action H2:	Description of Action (as submitted in the IP)	<p><u>Enforcement and Standards</u></p> <p>The Fisheries Act was revised in 2012 and now includes a number of provisions that will enable enhanced compliance and protection of commercial, recreational and Aboriginal fisheries.</p> <p>A number of provisions enable enhanced protection of these fisheries by:</p> <ul style="list-style-type: none"> Aligning the Fisheries Act with the Environmental

		<p>Enforcement Act (increased fines and penalties for offences);</p> <ul style="list-style-type: none"> • Creating more easily enforceable conditions for Ministerial authorizations; • Modernizing inspector powers to assist them in ensuring compliance with section 35 (dealing with harm to fish and their habitat); and • Establishing a “duty to notify” provision to establish obligations on persons whose actions result in harm to fish habitat to report and to take corrective measures. <p>These changes support the action of enforcing the fisheries protection provisions of the Fisheries Act, through activities aimed at both deterring activities that may harm fish and fish habitat, and at compelling compliance with the Act. Enforcement actions will help address the threats to fish and fish habitat listed in section 3.3 (H1).</p> <p>In addition, clear standards and guidelines for routine projects will be set in order to increase protection of commercial, recreation and Aboriginal fisheries.</p>
	Expected Outcome (as submitted in the IP)	Enhanced protection of recreational, commercial and Aboriginal fisheries from works, undertakings and activities that represent the greatest threats.
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	The Fisheries Protection Program has identified four pilot guidelines projects. These projects will support the development of performance-based standards in key areas, and provide guidance, in the form of guidelines, on how to achieve the standards. The guidelines are being prepared for the following activities: Pipelines watercourse crossings, transportation watercourse crossings, large and medium water intakes, and marine and coastal infrastructure.
	Current Status of Action	Ongoing
	If Completed, has the Action achieved its objective?	N/A
Action H3:	Description of Action (as submitted in the IP)	<p>The amended Fisheries Act provides Canada’s Minister with the ability to develop regulations in order to enter into agreements with other federal departments, provinces and others for the effective management of fisheries resources, including wild Atlantic salmon habitat.</p> <p>Threat H2 related to the presence of multiple jurisdictions, will be addressed through current and future partnerships.</p>

		<p>Reporting will be done by various means, including regular reports to Parliament and under the Multi-Agency Wild Atlantic Salmon Habitat Reporting Working Group.</p> <p>As well, jurisdictions within Atlantic Canada continue to work through informal arrangements and under the Wild Atlantic Salmon Conservation Policy to increase coordination on all key areas of management for Atlantic salmon.</p>
	Expected Outcome <i>(as submitted in the IP)</i>	Increased agreements, partnerships and collaboration among jurisdictions in Atlantic Canada.
	Progress on Action to Date <i>(Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)</i>	Inter-jurisdictional discussions and collaborative activities are ongoing - no new agreements have been struck.
	Current Status of Action	Ongoing
	If Completed, has the Action achieved its objective?	N/A

3.3 Provide an update on progress against actions relating to Aquaculture, Introductions and Transfers and Transgenics (Section 4.8 of the Implementation Plan).

Note: The reports under 'Progress on Action to Date' should provide a brief overview with a quantitative measure of progress made. While referring to additional material (e.g. via links to websites) may assist those seeking more detailed information, this will not be evaluated by the Review Group.

Action A1:	Description of Action (as submitted in the IP)	<p>Implementation and improvement of current sea lice management tools (legislation, regulation, policy, standards, monitoring and reporting on sea lice management) and the development of new tools, where required.</p> <p>A range of tools is possible, including the development of proposed <i>Aquaculture Activities Regulations</i> under the <i>Fisheries Act</i>; the Bay Area Management approach; Integrated Pest Management; complimentary Provincial policies and regulations; monitoring; and aquaculture public reporting, including the use of sea-lice performance indicators.</p> <p>The five-year renewal of the Fisheries and Oceans Canada's Sustainable Aquaculture Program (SAP) (from 2013 to 2018) was announced in Canada's 2013 Budget. The Aquaculture Sustainability Reporting Initiative was renewed as Aquaculture Public Reporting and is focused on providing timely, accurate, relevant and coherent information within the Department's regulatory framework under the <i>Fisheries Act</i>, both on a periodic and ongoing basis, to the public, markets and investors about the regulatory management of the sector as well as its economic and environmental performance.</p> <p>The combined objective of these tools is to ensure that all participants in the management of farmed fish health in general, and sea lice management in particular, throughout the NASCO Commission area in Canada do so in a coordinated manner, using a risk and evidenced based approach, addresses impacts to fish populations that support commercial, recreational, and Aboriginal fisheries as well as the habitats that support them.</p>
	Expected Outcome (as submitted in the IP)	<p>Improved implementation and coordination of sea lice management through new agreements, regulations and policies.</p> <p>Adoption of new standards, research, improved monitoring and dissemination of information on sea lice management.</p>

<p>Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)</p>	<p>The Aquaculture Activities Regulations (AAR) (http://www.dfo-mpo.gc.ca/aquaculture/management-gestion/aar-raa-eng.htm) came into force on June 29, 2015. These are Canada's first national regulations for aquaculture, developed to increase coherence between the federal and provincial/territorial regulation of aquaculture activities related to the control of disease, pests and biofouling, and the feeding and cultivation of fish. These regulations are intended to minimize harm to fish and fish habitat while permitting essential aquaculture activities. Licence holders are required to report on their activities each year; individual reports will be aggregated and published annually on the Fisheries and Oceans Canada (DFO) web site.</p> <p>With specific reference to sea lice management, licence holders, under the AAR, are required to notify DFO of their intent to deposit pest control products into fish-bearing waters. The notification must include the species treated, treatment reason, product type/ name, amount to be deposited and expected date of deposit. GIS coordinates also must be provided in order to enable fishery officers or other government representatives to be present. Annual reporting must include the same information for drugs as well as pest control products, as well as verification that drugs were administered under supervision of a licensed veterinarian and that pest control products were used according to label conditions.</p> <p>The AAR also contains stringent notification and reporting requirements for any morbidity/mortality events that are observed within 96 hours of deposits of a drug or pest control product. If directed, licence holders must take water, sediment and tissue samples that would be analysed under laboratory conditions to determine the cause of the event.</p> <p>Specific data on drug and pesticide use for 2016 are not yet available; however, DFO has verified that there were no morbidity/mortality events caused by aquaculture activities during 2016.</p> <p>Under the AAR, licence holders are also required to record their consideration of alternatives to using drugs or pest control products, to describe mitigation measures they have taken to reduce accidental releases of drugs into the marine environment, and to describe</p>
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	<p>measures taken to minimize detriment to fish and fish habitat from the deposit of drugs and pest control products.</p> <p>In November 2016, Dominic LeBlanc, Minister of Fisheries and Oceans and the Canadian Coast Guard, announced that DFO would begin to explore options for legislative reform, including development of an Aquaculture Act. The goal of new legislation is to develop a clear and transparent legislative framework that enshrines the highest standards for environmental protection, and mandates more transparent national public reporting for greater accountability. An outcomes-based standard for sea-lice management could be considered for incorporation into new legislation. More information on this initiative will be available in the 2017 NASCO Progress Report.</p> <p>In October 2015, Nova Scotia released new Aquaculture Management Regulations (http://www.novascotia.ca/just/regulations/regs/fcraquamgmt.htm%20-%20TOC2_13) setting out the requirements to operate aquaculture farms. The new Regulations allow for the appointment of a Chief Aquatic Animal Health Veterinarian, the establishment of Aquaculture Management Areas, and (amongst others) increased reporting of elevated on-farm mortalities and use of treatment products. The fish health section of the Farm Management Plan must include procedures for managing sea lice.</p> <p>New Brunswick (NB) completed its review of the Integrated Pest Management Program for Sea Lice in New Brunswick and has made minor modifications to the document. The Department continues to collaborate with industry in research on green, non-chemical treatment options for sea lice. NB is also a participant with industry and DFO in Inner Bay of Fundy salmon conservation projects and has made significant investment in the CAST program.</p> <p>Newfoundland and Labrador has adopted and implemented a Bay Management Area plan for salmon aquaculture in the Coast of Bays region. In 2015 and 2016, the Province invested in oceanographic research to support further development of Bay Management Areas to enhance fish health management and biosecurity for marine aquaculture sites. A Decision</p>
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		<p>Support System (FishiTrends) was implemented to monitor sea lice population levels.</p> <p>In November 2016, Dominic LeBlanc, Minister of Fisheries and Oceans and the Canadian Coast Guard, announced that DFO would begin to explore options for legislative reform, including development of an Aquaculture Act. The goal of new legislation is to develop a clear and transparent legislative framework that enshrines the highest standards for environmental protection, and mandates more transparent national public reporting for greater accountability. An outcomes-based standard for sea-lice management could be considered for incorporation into new legislation. More information on this initiative will be available in the 2017 NASCO Progress Report.</p> <p>In October 2015, Nova Scotia released new Aquaculture Management Regulations (http://www.novascotia.ca/just/regulations/regs/fcraquamgmt.htm%20-%20TOC2_13) setting out the requirements to operate aquaculture farms. The new Regulations allow for the appointment of a Chief Aquatic Animal Health Veterinarian, the establishment of Aquaculture Management Areas, and (amongst others) increased reporting of elevated on-farm mortalities and use of treatment products. The fish health section of the Farm Management Plan must include procedures for managing sea lice.</p> <p>New Brunswick (NB) completed its review of the</p>
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		<p>In November 2016, Dominic LeBlanc, Minister of Fisheries and Oceans and the Canadian Coast Guard, announced that DFO would begin to explore options for legislative reform, including development of an Aquaculture Act. The goal of new legislation is to develop a clear and transparent legislative framework that enshrines the highest standards for environmental protection, and mandates more transparent national public reporting for greater accountability. An outcomes-based standard for sea-lice management could be considered for incorporation into new legislation. More information on this initiative will be available in the 2017 NASCO Progress Report.</p> <p>In October 2015, Nova Scotia released new Aquaculture Management Regulations (http://www.novascotia.ca/just/regulations/regs/fcraquamgmt.htm%20-%20OC2_13) setting out the requirements to operate aquaculture farms. The new Regulations allow for the appointment of a Chief Aquatic Animal Health Veterinarian, the establishment of Aquaculture Management Areas, and (amongst others) increased reporting of elevated on-farm mortalities and use of treatment products. The fish health section of the Farm Management Plan must include procedures for managing sea lice.</p> <p>New Brunswick (NB) completed its review of the Integrated Pest Management Program for Sea Lice in New Brunswick and has made minor modifications to the document. The Department continues to collaborate with industry in research on green, non-chemical treatment options for sea lice. NB is also a participant with industry and DFO in Inner Bay of Fundy salmon conservation projects and has made significant investment in the CAST program.</p> <p>Newfoundland and Labrador has adopted and implemented a Bay Management Area plan for salmon aquaculture in the Coast of Bays region. In 2015 and 2016, the Province invested in oceanographic research to support further development of Bay Management Areas to enhance fish health management and biosecurity for marine aquaculture sites. A Decision Support System (FishiTrends) was implemented to monitor sea lice population levels.</p>
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	Current Status of Action	Ongoing
	If Completed, has the Action achieved its objective?	N/A
Action A2:	Description of Action (as submitted in the IP)	<p>Implementation and improvement of current management tools (legislation, regulation, policy, standards and public dissemination of information on the management of farmed fish which have breached containment) and the development of new tools, where required.</p> <p>A range of tools is possible, including the development of legislative authority to enforce requirements; adoption of containment standards; and aquaculture public reporting, including the use of containment performance indicators.</p> <p>The combined objective of these tools is to ensure that all participants in the containment of farmed fish throughout the NASCO Commission area in Canada do so in a manner that minimizes impacts to fish populations that support commercial, recreational and Aboriginal fisheries as well as the habitats that support them.</p>
	Expected Outcome (as submitted in the IP)	Improved implementation and coordination of farmed fish containment through new agreements, regulations and policies, adoption of new standards, research, improved monitoring and dissemination of information on farmed fish containment
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	<p>It is always the objective of regulators and farmers to ensure that 100% of farmed fish are retained on all production sites as escapes represent a significant economic loss to fish farmers. Accounting for inventory in marine cages remains a difficult task. Large escape events are readily identified and reported, but trickle losses from marine production are difficult to estimate. All provinces and stakeholders continue to work to reduce escapes.</p> <p>The Government of Nova Scotia's new Aquaculture Management Regulations (http://www.novascotia.ca/just/regulations/regs/fcraquamgmt.htm%20-%20TOC2_13) require finfish licence holders to include containment management in their Farm Management Plans. Plans must include information and procedures related to a variety of containment issues such as (amongst others) processes for installing and maintaining infrastructure to limit risk of a breach, responses to breaches, and inventory</p>

		<p>levels during production. The containment management sections of the Farm Management Plans must be audited by a third party annually and immediately following a reported breach. Marine cage site designs must also be approved by a qualified engineer before deployment. An industry and stakeholder committee is expected to provide recommendations to the Nova Scotia Government this spring on a regulated approach to tracing escaped salmon to the operator of origin.</p> <p>The Newfoundland and Labrador Code of Containment (http://www.fishaq.gov.nl.ca/aquaculture/public%20reporting/Salmonid%20Code%20of%20Containment%202014.pdf) continues to be implemented as a condition of the aquaculture licence. It was last updated in February 2014 and is reviewed annually.</p> <p>Grieg Seafoods is in the process of applying for marine site licences for salmon aquaculture in Placentia Bay, NL, but the project is still under review. The use of triploid Icelandic salmon in Placentia Bay aquaculture operations was reviewed by the Introductions and Transfers Committee under the National Code of Introductions and Transfers. A formal risk assessment process was conducted. DFO gave approval for the use of triploids in Placentia Bay, pending verification of the triploid process and health status at the time of transfer. Should the project be approved, hatchery construction would begin immediately, with planned fish entry to sea cages in 2018.</p> <p>The Williamsburg Resolution encourages the use of reproductively sterile salmonids provided the risk of adverse effects on wild salmon stocks is minimal. The use of triploids presents the opportunity to significantly decrease the risk of successful interbreeding between wild and farmed Atlantic salmon. Additionally, improvements in technology have resulted in considerable success in achieving high levels of triploid induction. Moreover, the production of all-female triploids offers the further advantage of minimizing potential ecological interactions from escapees, such as competition for reproductive resources.</p>
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	Current Status of Action	Ongoing
	If Completed, has the Action achieved its objective?	N/A
Action A3:	Description of Action (as submitted in the IP)	Renewal of Canada's National Code on Introductions and Transfers of Aquatic Organisms The objective of this action is to complete the review and update Canada's National Code on Introductions and Transfers of Aquatic Organisms.
	Expected Outcome (as submitted in the IP)	A renewed Code accounting for changes in federal authority over the management of aquatic animal disease risks and potential refinements.
	Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)	The renewed National Code on Introductions and Transfers of Aquatic Organisms and the National Aquatic Animal Health Program were implemented in 2015 (see 2015 NASCO APR for details).
	Current Status of Action	Completed
	If Completed, has the Action achieved its objective?	Yes
Action A4:	Description of Action (as submitted in the IP)	Process to Assess Potential Commercial Production of Transgenics Canada plans to continue to rigorously implement and enforce our risk-based legislative and regulatory process for living organism products of biotechnology, including transgenic salmonids. Canada plans to continue to invest in contained, land-based laboratory research involving transgenic fish to generate scientific knowledge to inform risk assessment, risk management and regulatory approaches aimed at protecting the aquatic environment including wild salmon populations.

	<p>Expected Outcome (as submitted in the IP)</p>	<p>Government of Canada decision makers have access to scientific knowledge for the risk assessment and regulation of fish products of biotechnology (immediate outcome).</p> <p>Fish products of biotechnology do not harm the environment or wild salmon populations (long-term outcome).</p>
	<p>Progress on Action to Date (Provide a brief overview with a quantitative measure of progress. Other material (e.g. website links) will not be evaluated.)</p>	<p>In 2013, Canada decided to permit the commercial production of transgenic Atlantic salmon (AquAdvantage® salmon), in contained facilities as prescribed in Section 3 of Significant New Activity Notice16528, published in Vol. 147, No. 47 (pp. 2676 – 2679) of the Canada Gazette, Part I on November 23, 2013.</p> <p>In May, 2016, Health Canada and the Canadian Food Inspection Agency (CFIA) approved the transgenic AquaAdvantage™ Atlantic Salmon for human food and animal feed use (see: http://news.gc.ca/web/article-en.do?nid=1068309)</p> <p>In 2016, there were no known violations of the New Substances Regulations (Organisms) in respect of Atlantic salmon, and there were no known violations of the Significant New Activity Notice16528.</p> <p>In 2016, there were no regulatory submissions under the Canadian Environmental Protection Act, 1999 for a transgenic salmonid, or any other novel aquatic organism that is a fish product of biotechnology.</p>
	<p>Current Status of Action</p>	<p>Ongoing</p>
	<p>If Completed, has the Action achieved its objective?</p>	<p>Canada continues to achieve our objective to protect the environment, including wild Atlantic salmon, from potential risks associated with transgenic salmonids, through implementation and enforcement of a strong regulatory program.</p> <p>Canada continues to invest in contained, land-based laboratory research involving transgenic fish, to generate scientific knowledge that informs risk assessment, risk management, and regulatory approaches aimed at protecting the aquatic environment, including wild Atlantic salmon (see http://www.dfo-mpo.gc.ca/science/coe-cde/cabrr-crrba/index-eng.html).</p>

		<p>Canada continues to enforce mandatory control measures implemented under the Canadian Environmental Protection Act, 1999, and the New Substances Notification Regulations (Organisms) as prescribed in the Significant New Activity Notice No. 16528, published in Vol. 147, No. 47 (pp. 2676 – 2679) of the Canada Gazette, Part I on November 23, 2013. Canada continues to inspect all facilities that rear transgenic Atlantic salmon in Canada, and enforce compliance under the Canadian Environmental Protection Act, 1999, and Significant New Activity Notice No. 16528.</p>
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4: Additional information required under the Convention
4.1 Details of any laws, regulations and programmes that have been adopted or repealed since the last notification.
N/A
4.2 Details of any new commitments concerning the adoption or maintenance in force for specified periods of time of conservation, restoration and other management measures.
See above for details
4.3 Details of any new actions to prohibit fishing for salmon beyond 12 nautical miles.
N/A
4.4 Details of any new actions to invite the attention of States not Party to the Convention to matters relating to the activities of its vessels which could adversely affect salmon stocks subject to the Convention.
Canada met with France (in respect of Saint Pierre and Miquelon) in 2016 and discussed potential membership in NASCO. France will continue as an observer and participate at NASCO annual meetings as it has in the past.
4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.
None
North American Commission Members only:
4.6 Details of any new measures to minimise by-catches of salmon originating in the rivers of the other member.
None
4.7 Details of any alteration to fishing patterns that result in the initiation of fishing or increase in catches of salmon originating in the rivers of another Party except with the consent of the latter.
None