Agenda Item 8.1
For Information

Council

CNL(13)36

Annual Report
on Actions Taken Under Implementation Plans

Canada

CNL(13)36

Annual Report on actions taken under Implementation Plans for the Calendar Year 2012

The Guidelines for the Preparation of Implementation Plans and for Reporting on Progress, NSTF(06)10, indicate that the primary purpose of the annual reports is to provide a summary of all the actions that have been taken under the Implementation Plan in the previous year. In addition, details of any significant changes to the status of stocks, new factors affecting stocks, any changes to the management regime in place, and any changes to the Implementation Plan should be included in the report. Details of actions taken in accordance with Articles 14 and 15 of the Convention are also needed by the Council. **Please provide the following information to the Secretariat by 5 April 2013**

Section 1: Details of any significant changes to the management outlined in the introduction to the Implementation Plan.

No significant changes.

Section 2: A description of any significant changes in the status of stocks and information on catches. The Council has asked that the following information on catches be provided:

- **(a) the provisional catch of salmon in tonnes for 2012;**
- **(b) the confirmed catch of salmon in tonnes for 2011;**
- **(c) an estimate of unreported catch in tonnes for 2012;**
- **(d) the number of salmon caught and released in recreational fisheries in 2012.**

(a) provisional catch of salmon for 2012:

- 134.7 t, equivalent to 58,562 fish in number of all sizes.
- Comprised of 79.9 t of small salmon (< 63 cm fork length) equivalent by number to 46,891 small salmon and 54.8 t of large salmon (>= 63 cm fork length) equivalent by number to 11,671 large salmon.

(b) confirmed catch of salmon for 2011:

- 178.6 t, equivalent to 77,424 fish in number of all sizes.
- Comprised of 110.0 t of small salmon (< 63 cm fork length) equivalent by number to 63,756 small salmon and 68.6 t of large salmon (>= 63 cm fork length) equivalent by number to 13,668 large salmon.

(c) unreported catch estimate for 2012

- From illegal fishing activities: 30.6 t.
- Of the 15.3 t of this unreported catch to which a location was recorded, 65% was recorded as taking place in freshwater, 35% in tidal waters, and less than 1% in marine waters.

(d) number of salmon caught and released in recreational fisheries in 2012:

- 50,811 fish, comprised of 32,531 small salmon and 18,280 large salmon.
- In total, 57% of all fished captured (retained plus released) were released in the recreational fishery.

Section 3: A description of any new factors which may significantly affect the abundance of salmon stocks.

Section 4: An account of all actions taken under the Implementation Plan with regard to the management of salmon fisheries; habitat protection and restoration; aquaculture and related activities; and other influences affecting salmon abundance or diversity (including the marine environment).

Management Action	Reporting Update	Achieved Management Action (Yes, No, Ongoing, Completed)
Fisheries Management		
Quebec's stocking program changed in 2012 to orient it towards restoration, rather than fisheries development. Stricter criteria take into consideration genetic diversity and vulnerability.	Only 4 rivers will have stocking efforts. A monitoring program for stocked fish started in 2012. All stocked fish are being marked.	**Ongoing**
Habitat Protection and Restoration		
Action: Canada will report	*Overview of Fisheries and Oceans Canada Habitat Management Program activities*:	**Ongoing**

annually on the number and extent (area of habitat affected) of habitat remediation activities undertaken annually. Many of these would be corrective measures to remediate dated and deficient historical structures.	Fisheries and Oceans Canada Habitat Management Program staff review development proposals (referrals) to assess if a harmful alteration, disruption or destruction (HADD) of fish habitat is likely to result from a proponent's proposed works or undertakings. Staff may then send advice to the proponent on how to proceed with their works or undertakings in a manner that will comply with the *Fisheries Act*, mainly with respect to avoiding or reducing the HADD of fish habitat as prohibited under section 35. Advice is commonly provided in the form of a "Letter of Advice" or an "Operational Statement" for low risk activities. An "Authorization" pursuant to subsection 35(2) of the *Fisheries Act* may be issued when HADD cannot be avoided. <u>*Québec:*</u> Fisheries and Oceans Canada issued approximately 200 Letters of Advice in 2012. Advice typically provided in terms of specific mitigation measures required to avoid impacts on fish and fish habitat. In addition, there were also 22 Section 35 Authorizations issued under the *Fisheries Act* and approximately five were identified in freshwater habitat of Atlantic salmon. Some *Fisheries Act* authorizations contain Atlantic salmon compensation projects: 1. Resting pool creation downstream of a fishway in the Matane river. 2. Resting pool creation in the St-Jean river. 3. Spawning and rearing habitat creation downstream of a hydroelectric station in the Franquelin river. <u>*Nova Scotia*</u>: Fisheries and Oceans Canada issued approximately 529 Letters of Advice in 2012. Advice typically provided in terms of specific mitigation measures required to avoid impacts on fish and fish habitat. In addition, there were also 20 Section 35 Authorizations issued under the *Fisheries Act* (for which habitat compensation plans would have been required) and approximately 11 were identified in freshwater habitat of Atlantic salmon.	

	New Brunswick: In New Brunswick, Fisheries and Oceans Canada issued approximately 263 Letters of Advice in 2012. Advice typically provided in terms of specific mitigation measures required to avoid impacts on fish and fish habitat. In addition, there were also 11 Section 35 Authorizations issued under the *Fisheries Act* (for which habitat compensation plans would have been required); approximately 4 were identified in freshwater habitat of Atlantic salmon. *Prince Edward Island*: In Prince Edward Island, Fisheries and Oceans Canada issued approximately 131 Letters of Advice in 2012. Advice typically provided in terms of specific mitigation measures required to avoid impacts on fish and fish habitat. In addition, there were also 3 Section 35 Authorizations issued under the *Fisheries Act*. In 2012 there were three *Fisheries Act* Authorizations issued, 2 were identified in freshwater habitat and a 3rd one in estuarine/marine habitat. Habitat compensation was undertaken in the area of interest 1 was compensated for through the habitat bank established by Small Craft Harbours One of the projects was stream restoration along Peters Brook a tributary to the West River that empties into Charlottetown Harbour. This work included brook reconstruction and bank stabilization as well as replacing a culvert that was a blockage to fish migration stabilization in an urban watercourse. The second compensation project was the participation in the provincial ALUS voluntary program that encourages farmers to retire land from agricultural production in order to reduce soil erosion and siltation of watercourses and wetlands; improve water quality; improve and increase wildlife habitat and reduce the impacts of climate change.	

	Newfoundland and Labrador: In 2012, Fisheries and Oceans Canada issued a total of 401 Letters of Advice and 2 *Fisheries Act* Authorizations in Newfoundland and Labrador. Of these, a small subset was identified as being directly related potential impacts to Atlantic salmon habitat. Specifically, 55 referrals potentially affecting Atlantic salmon were received in 2012: 49 in riverine habitat, 1 in riparian habitat, 4 in lacustrine habitat and 1 in estuarine habitat. During the year, 27 referral reviews were completed, resulting in the issuance of 11 Letters of Advice, and 3 operational statements. No action was taken for the other 13 referrals, and there were no authorizations issued on projects directly linked to Atlantic salmon habitat. Consequently, there were no salmon improvements completed in the last fiscal in Newfoundland and Labrador in response to compensation for *Fisheries Act* Authorizations. There were however a number of monitoring programs continuing under various Authorizations: 2 salmon habitat improvement projects associated with habitat compensation related to *Fisheries Act* 35(2) Authorizations and 1 related to a Metal Mining Effluent Regulations (MMER) project undergoing active monitoring in 2012: 1) Vale – Voisey Bay Mine Mill project – Section 35 Authorization – An area of Lomond River on the west coast of Newfoundland had drowned pulpwood removed to make area better spawning and rearing habitat for salmon (and Brook Trout). Further work was completed in 2011. Monitoring was again done in this area in summer 2012. Results showed an increase in catch per unit effort of juvenile Atlantic Salmon over pre-rehabilitation results. Monitoring to continue into the next two years. 2) Vale – Long Harbour Nickel Processing plant – Section 35 Authorization – In 2010 work was completed on Northeast Placentia River. Spawning gravels were added to several sections, instream features including pools and low head barriers were also constructed at several locations to provide proper substrate and hydrology for increased spawning and rearing of Atlantic Salmon. While results of the 2012 monitoring are not available at time of writing, past monitoring results are positive.	

	3) Vale – Sandy Pond tailings impoundment area – MMER permit – In 2011 a major tributary of Salmon Cove River was opened up so that Salmon could re-establish themselves in the area. This tributary previously had anadromous salmon but had become blocked by vegetation due to development upstream many years ago. Vegetation was removed and salmon transfers from the other branch of the river were attempted but were not successful. Improvements were also made to several areas of the river including the addition of spawning gravels and hydrologic control instream features. While data is not yet available anecdotal evidence and conversation with proponent/consultant has confirmed the re-establishment of salmon in the tributary in question. During a 2007 upgrade to the Rattling Brook Power generation facility DFO and Newfoundland Power Company agreed to collaborate on assessing options for reestablishment of salmon passage. On February 12, 2010, a restoration (DFO Ministerial) order was sent to Newfoundland Power. The order specified: "The fish pass is to be in place to allow downstream migration of salmon kelts and smolts by May 1, 2013, and the upstream migration of grilse and adult salmon by June 10, 2014." Construction is now completed on a fish pass which will allow for downstream migration of Salmon kelts and smolts at the Rattling Brook Power generation facility. The first downstream migration through the fish pass is anticipated to be on schedule in the spring of 2013. Construction started on the upstream fish pass, but had to be halted due to a land ownership issue. The relevant company is now in process of acquiring the property. Materials for upstream fish passage are on site and all of the civil engineering works have been completed. The upstream fish pass is expected to be completed in time for the upstream migration of grilse and adult salmon in 2014. There were some salmon tagged (DFO Science) with radio tags moved upstream of the dam from a nearby river to study migration patterns. More extensive fish transfers were hampered by low water levels making capture impossible. The Norris Arm and Area Economic Development Committee has led this initiative assisted with a three-year funding arrangement with the Atlantic Salmon Conservation Foundation.	

DFO is currently participating in the environmental assessments for the Labrador-Island Transmission Link and Maritime Link electrical transmission projects.

Components of both projects have the potential to impact salmon which includes:

- Impacts to habitat due to construction of watercourse crossings associated with the development of access roads for the overhead line(s)
- Electromagnetic Fields (EMF's) of operating shoreline electrodes and subsea cable interference with salmon migration

Example of activities completed by Non-Governmental Organizations:

Working with their own resources and with financial assistance of funding provided by the Atlantic Salmon Conservation Foundation since 2007 community stewardship groups in Quebec and the four Atlantic provinces have been able to improve and/or protect a significant amount of stream habitat, as shown in the table (below). In addition, approximately 3.8 million square meters of in-stream habitat has been restored to access for wild Atlantic salmon.

Since 2007	**NB**	**NL**	**NS**	**PEI**	**QC**	**TOTAL**
Square metres of stream habitat restored/protected	2,212,000	5,357	40,510	102,700	10,800	2,371,367
Square metres of restored access in streams	63,000	3,700,000	-	28,503	2,400	3,793,903

Partial data available for 2012 indicates that at least 13,884 square meters of stream habitat has been restored/protected, and 1,510,000 square meters of in-stream habitat was restored to access for wild Atlantic salmon.

Action: Continue to enforce provisions of the Fisheries Act and seek important monetary penalties for destruction of fish or fish habitat, including provisions for habitat restoration by a guilty party.	*Assessment of Fisheries and Oceans Canada Habitat Management Program activities* DFO's Habitat Management and Conservation and Protection Programs work in collaboration to monitor compliance with legislation and regulations regarding the conservation of fisheries resources and the habitat that supports them. The Minister of Fisheries and Oceans appoints fishery officers to enforce fisheries regulations and management plans as well as the habitat provisions of the *Fisheries Act*. DFO's measures to promote compliance include, where feasible and appropriate, communication and public education; consultation with parties affected by the habitat protection provisions of the *Fisheries Act*; and in some cases, technical assistance. Enforcement of the habitat protection provisions is carried-out pursuant to the Compliance and Enforcement Policy for the habitat protection and pollution prevention provisions of the *Fisheries Act*. Enforcement actions include inspections to monitor or verify compliance; investigations of alleged violations; the issuance of warnings, Inspector's Directions and Ministerial Orders. Court actions such as prosecutions, court orders upon conviction and suits for recovery of costs can also be pursued where appropriate. Compliance monitoring activities carried out by the Habitat Management Program are aimed at fish and fish habitat in general, and are not generally identified as monitoring actions that relate to a specific species, such as Atlantic salmon. Below is a summary of the compliance monitoring activities carried out by the Habitat Management Program in 2012. *Quebec:* During 2013, 33 compliance monitoring actions where completed in Quebec. A 48% conformity rate was reported, meaning that 48% of the projects were carried out in the manner consistent with the advice that was provided by DFO.	**Ongoing**

	Nova Scotia: During 2012, approximately 206 compliance monitoring actions were completed in Nova Scotia. There was a conformity rate of 95%, meaning 95% of the projects were carried out in the manner consistent with the advice that was provided by DFO. *New Brunswick:* During 2012, approximately 96 compliance monitoring actions were completed in New Brunswick. There was a conformity rate of 90%, meaning 90% of the projects were carried out in the manner consistent with the advice that was provided by DFO. *Prince Edward Island:* During 2012, approximately 17 compliance monitoring actions were completed in Prince Edward Island. There was a conformity rate of 76%, meaning 76% of the projects were carried out in the manner consistent with the advice that was provided by DFO. *Newfoundland and Labrador:* During 2012, approximately 152 (with approximately 33 linked to potential impacts to Atlantic salmon) compliance monitoring actions were completed in Newfoundland and Labrador. Overall, there was a conformity rate of 97%, meaning 97% of the projects were carried out in the manner consistent with the advice that was provided by DFO.	
Aquaculture and related activities		
Action: A revised I&T delivery model	DFO has initiated the development of a Task Group under the Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) to work in collaboration with CCFAM jurisdictions (all provinces and territories) to renew the 2003 *National Code on Introductions and Transfers of*	**Ongoing**

is expected by 2008 – 09.	*Aquatic Organisms*. Among other matters, the renewed Code will Revisions to the Code are needed to account for phased implementation of the National Aquatic Animal Health Program (NAAHP) by the Canadian Food Inspection Agency (CFIA). Additional opportunities may also be sought to further enhance the Code. It is expected that the renewed Code will be presented for CCFAM approval in the Fall 2013.	
Action: Amendments to the Health of Animals Regulations are expected by 2008-2009.	Regulations are current to 2012-04-23 and last amended on 2011-12-10 (http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._296/index.html)	**This action is completed.**
Action: Regional Fish Health Facility to be fully operational by 2008-09	The new Centre for Aquaculture Health and Development in St. Alban's, Newfoundland and Labrador was opened for operation on July 14, 2010. The Centre is an international model for aquatic diagnostics, marine biosecurity and energy conservation.	**This action is completed.**
Action: Industry to ratify New Brunswick's Code of Containment by 2008.	The *Code of Containment for the Culture of Atlantic Salmon in Marine Net Pens in New Brunswick* was prepared by the NB Salmon Growers' Association with the Province and Fisheries and Oceans Canada. It was finalized in June 2008 and is publicly available (http://atlanticfishfarmers.com/codes-of-containment.html).	**This action is completed.**
Action: Provincial regulatory amendments for the Code expected by March 2008.	The New Brunswick Regulation 91-158 under the Aquaculture Act is current to May 8, 2012 and is publicly available (http://laws.gnb.ca/en/showfulldoc/cr/91-158//20120511).	**This action is completed.**

Canada, through the North American Commission, will work with the US to develop a protocol for the sharing of information with respect to disease incidences, introductions and transfers, breaches of containment and transgenics activities.	The NAC annual reporting template was ratified by NASCO Council in 2011. Canada and the US continue discussions on reporting for fish health.	**Ongoing**
Other influences affecting salmon abundance or diversity (including marine environment)		

Section 5: Details of any proposed revisions to the Implementation Plan.

Section 6: Information on the number of salmon that escaped from salmon farms (both freshwater and marine facilities) in 2012. The Council has asked that information be provided on the number of farmed salmon reported to have escaped from salmon farms together with an estimate, if available, of the number of escaped farmed salmon that was unreported.

See below.

NASCO Report on Actions Taken under Canada's Implementation Plan for Calendar Year 2012

Canada, 2012
Submitted by: Fisheries and Oceans Canada

Summary of breaches of containment of salmonids from net cages

Species (Strain, if applicable)	Number[1]	Average size of fish[2]	Location[3]	Result[4]	Cause of the breach
Atlantic Salmon (Saint John River)	>100 fish (unable to confirm exact number until site is harvested out)	5.1 kg	ABMA 3a, Seeley's Cove, NB	No recapture attempt	Net failure-hole in net pen
Atlantic Salmon (Saint John River)	No change in bio mass observed (incident reported as potential breach; observations could not confirm losses of any fish)	4.0 kg	ABMA 3a, Seeley's Cove, NB	No recapture attempt	Net Failure-center line broke
Atlantic Salmon (Saint John River)	No change in bio mass observed (incident reported as potential breach; observations could not confirm losses of any fish)	3.4 kg	ABMA 3a, Maces Bay, NB	No recapture attempt	Net Failure- Predators (seals)
Atlantic Salmon (Saint John River)	No change in bio mass observed (incident reported as potential breach; observations could not confirm losses of any fish)	4.5 kg	ABMA 3a, Beaver Harbour/ Maces Bay, NB	No recapture attempt	Net failure- Predators (tuna breached the net)
Atlantic Salmon (Saint John River)	No reported escapes, but small numbers of escapes (<20) identified in fisheries monitoring.	Not applicable	NL	Net holes documented and repaired ranged in size from a few meshes to	Nine breaches were associated with net damage caused by sharks and tunas over a 4 week period in July-August.

	Nine predator encounter incidents and one equipment incident were reported as potential breaches. Given the locations of holes in nets, few or no escapes were expected and any losses would be below a detection threshold.			~1.5m in length. Hole locations near net bottoms unlikely to have resulted in large losses.	One breach was attributed to a mort ring tearing or abrading a hole near the bottom of the net. Escape estimates, if any, to be verified upon inventory reconciliation.
Atlantic Salmon	No reported incidents		NS		

Notes:

1. This should be the best estimate possible, though it is recognized that exact numbers may be difficult to obtain. Also note that methodologies for determining and numbers differ between provinces and are presently not directly comparable. Efforts are underway to resolve these differences.
2. Based on the codes of containment, it was agreed that average size is a more accurate measurement than life stage.
3. The more specific the information the better, however Bay level is considered sufficient.
4. This refers to using recapture methods as detailed in the relevant code of containment and summarizing the results of the recapture attempt.