	Council ***Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2023 United States***	**CNL(24)38**

Annual Progress Report on Actions taken under the Implementation Plan for the Calendar Year 2023

The Annual Progress Reports allow NASCO to evaluate progress on actions taken by Parties / jurisdictions to implement its internationally agreed Resolutions, Agreements and Guidelines and, consequently, the achievement of their objectives and actions taken in accordance with the Convention. The following information should be provided through the Annual Progress Reports:

- 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.

In completing this Annual Progress Report please refer to the ***Guidelines for the Preparation and Evaluation of NASCO Implementation Plans and for Reporting on Progress****, CNL(18)49.*

These reports will be reviewed by the Council. Please complete this form and return it to the Secretariat **no later than 1 April 2024**.

Party:	**United States**
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 November).***

None

1.2 Describe any major new initiatives or achievements for salmon conservation and management that you wish to highlight.

Restoration: The Sandy River watershed is a substantial sub-basin to the Kennebec River watershed that contains a significant amount of high quality salmon habitat. Four mainstem dams in the Kennebec River have blocked access to the Sandy River for more than 150 years. In 2023, NOAA Fisheries completed an Endangered Species Act consultation with the Federal Energy Regulatory Commission (FERC) on the dam owners' proposal to amend the operating licence for these dams. As a result, FERC has proposed significant operational and structural changes at these four dams to dramatically improve conditions for endangered Atlantic salmon and other sea-run fish. Improvements to be made at the projects include the construction of new upstream and downstream fishways that will be operated to achieve survival and passage rates of over 95%. Additionally, operational modifications at three of these dams also include full night time turbine shutdowns during the 54 day smolt migration window which should significantly reduce entrainment of emigrating smolts.

2: Stock status and catches.

2.1 Provide a description of any new factors that may affect the abundance of salmon stocks significantly 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.

In September 2023, routine fish health screening at the Downeast Salmon Federation's Peter Gray Hatchery in East Machias, Maine detected the Infectious Pancreatic Necrosis Virus (IPNV). The virus infected both East Machias and Narraguagus River stocks of Atlantic salmon destined for stock enhancement purposes. The hatchery was holding approximately 67,000 Narraguagus River origin parr and 98,000 East Machias origin parr accounting for over 95% of the stocks destined for conservation stocking in these watersheds. Given that there is no cure for IPNV and the threat that it poses to wild stocks, Maine Department of Marine Resources (MDMR) required that all fish on the premises be destroyed and the entire hatchery be disinfected.

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').***

	In-river	Estuarine	Coastal	Total
(a) provisional nominal catch (which may be subject to revision) for 2023 (tonnes)	0	0	0	0
(b) confirmed nominal catch of salmon for 2022 (tonnes)	0	0	0	0
(c) estimated unreported catch for 2023 (tonnes)	0 (see action F2 and F3)	0	0	0
(d) number and percentage of salmon caught and released in recreational fisheries in 2023	There are no recreational fisheries for sea-run Atlantic salmon in the United States. There are, however, small fisheries for domestic broodstock in the Naugatuck and Shetucket Rivers in Southern New England; these rivers are outside the geographic range of endangered Atlantic salmon.			

3: Implementation Plan Actions.

3.1 Provide an update on progress on actions relating to the Management of Salmon Fisheries *(section 2.9 of the Implementation Plan).*

Note: *the reports under 'Progress on action to date' should provide a* ***brief overview*** *of each action. Please report in relation to the reporting year only or the most relevant recent year. For all actions, provide* ***clear and concise quantitative*** *information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. 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)*	Reduce mortality of U.S.-origin salmon in mixed-stock fisheries by remaining active in the West Greenland Commission and the North American Commission.

	Expected outcome (*as submitted in the IP*)	a) Maintenance of existing mortality attributable to the West Greenland fishery as measured by the quota currently set at 30mt through 2020 (note: specific outcomes beyond 2020 cannot be determined at this time as the existing regulatory measure applies only for 2018, 2019, and 2020). b) Agreement on a regulatory measure in 2021. c) Maintenance of low levels (previously estimated at 30 to 40 U.S.-origin salmon per year) of interception of U.S.-origin salmon in the mixed-stock fishery in Labrador.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	a) Continue to facilitate the sampling program for the West Greenland fishery; review fishery data and reports from Denmark (in respect of the Faroe Islands and Greenland) to ensure the key provisions of the existing regulatory measure are effectively implemented. b) Annual review of reports and other scientific findings related to the mixed-stock fishery in Labrador.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	For the 2023 fishing season, the 2022 regulatory measure remained in place allowing for a total allowable catch of no more than 27 tonnes at West Greenland (with an additional 3 t allocated for the East Greenland fishing area). Additionally, DFG agreed to continue with the 49% threshold whereby a 3 day notice announcing the closure of the fishery would be given when 49% of the TAC had been reached. In 2022 the total reported harvest was 27.7 t under the 49% rule with an estimated 68% of the licensed fishers reporting. In 2023, the estimated total quota uptake was 32.6 t with an estimated 82% of the licensed fishers reporting. The United States continues to facilitate the sampling program for the West Greenland fishery. The sampling program was conducted in 2023, and the data are being summarised and all results will be reported to the ICES WGNAS during their 2024 Annual Meeting. The United States remains an active participant in the NAC and continues to carefully review Canada's report on Labrador's mixed stock fishery (NAC(23)04). We continue to encourage Canada to evolve its sampling of the Labrador fishery to ensure improved characterization of the impact of the fishery on U.S.-origin salmon. We also continue to urge Canada to implement fishery management measures that eliminate the catch of U.S.-origin salmon in the Labrador fishery and, towards this end, additional management actions have been taken in recent years. Continually increasing the efficacy of the sampling in Labrador, either through increased sampling, targeted sampling or a combination of both, would greatly assist in evaluating the effectiveness of these management actions.

	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F2:	Description of action (*as submitted in the IP)*	Reduce bycatch of Atlantic salmon in recreational fisheries for other species, such as brook trout, to the maximum extent possible.
	Expected outcome (*as submitted in the IP*)	Closures of certain areas of rivers, gear restrictions, bag limit reductions, publication of species identification guides in fishing law books, prosecution of poachers when necessary, among others. Note: this action (and therefore expected outcome) does not lend itself to quantitative measures because specific estimates of bycatch are not available. Thus, developing quantitative targets is not possible. Reporting on progress under this action will therefore focus on qualitative aspects (using specific examples where possible) with the assumption that activities under this action will correlate with reductions in mortality of Atlantic salmon attributable to bycatch.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	This action does not lend itself to a strictly quantitative approach to monitoring as specific levels of bycatch are currently unknown. Thus, the focus will be on ensuring the risks to productive capacity are minimised (as opposed to developing quantitative estimates) by publication of new laws when necessary, description of law enforcement activities, and an aggressive outreach and education campaign ensuring that anglers can differentiate salmon parr from brook trout.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In 2023 there were eight known incidents of Atlantic salmon captured by anglers. All of these fish were stocked adults as part of a study to evaluate the effectiveness of adult stocking in furthering recovery efforts, and were below the upper size limit of 63 cm aimed at protecting wild Atlantic salmon. All but one fish was taken by hook and line, and four of the seven salmon taken by hook and line were retained for consumption. All the fish that were kept were reported to Maine Warden Service, who then communicated the incidents to Maine Department of Marine Resources and the U.S. Fish and Wildlife Service. No citations were issued for these incidents since the fish captured were within the legal size limit for landlocked salmon described within the fishing rules. In response to these incidents, outreach efforts were increased by

		increasing signage in areas where the salmon were being angled and distributing a newsletter mailing to fishing license holders to educate anglers on the endangered status of sea-run salmon, asking recreational freshwater anglers to be on the lookout for endangered Atlantic salmon, and to release them unharmed if they are accidentally caught. In 2023, all measures remained in place aimed at reducing bycatch of Atlantic salmon in recreational fisheries. These measures include the federal Endangered Species Act prohibitions on "take" of endangered Atlantic salmon, as well as the State of Maine continuing to maintain stringent regulations governing recreational fishing in areas where salmon live. These regulations explain that sea-run salmon are federally endangered and cannot be removed from the water, and prohibit anglers from retaining landlocked salmon and brown trout above 63 cm to ensure that adult sea-run salmon are not incidentally captured and retained. A minimum length limit of 15 cm on brook trout and brown trout and 35 cm for landlocked salmon ensures that Atlantic salmon parr are not incidentally retained during recreational fisheries. Area closures and gear restrictions continue to remain in place on many Atlantic salmon rivers where adult salmon are known to congregate, as well as routine surveillance of these areas by state and federal law enforcement agencies.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F3:	Description of action (*as submitted in the IP)*	Reduce poaching of Atlantic salmon to the maximum extent possible.
	Expected outcome (*as submitted in the IP*)	Deterrence of illegal activity and prosecutions of poachers when necessary. Note: this action (and therefore expected outcome) does not lend itself to quantitative measures because specific estimates of mortality attributable to poaching are not available. Thus, developing quantitative targets is not possible. Reporting on progress under this action will therefore focus on qualitative

		aspects (using specific examples where possible) with the assumption that activities under this action will correlate with reductions in mortality of Atlantic salmon attributable to poaching.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	This action does not lend itself to a strictly quantitative approach to monitoring as specific levels of poaching are currently unknown (though thought to be very low). Thus, reporting will focus on ensuring the risks to productive capacity are minimised largely through descriptions of law enforcement activities (including deterrence).
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	The State of Maine has two primary conservation law enforcement entities who are responsible for Atlantic salmon. The Maine Department of Marine Resources', Bureau of Marine Patrol (MMP) and the Department of Inland Fisheries and Wildlife's, Bureau of the Maine Warden Service (MWS). The MMP is responsible for enforcement in all tidal waters, and the MWS enforces all waters of the state above the head of tide. For the Maine Department of Marine Resources – Marine Patrol, Atlantic salmon enforcement is a designated priority within MMP's Joint Enforcement Agreement (JEA) with the National Oceanic and Atmospheric Administration's Office of Law Enforcement. During 2023, MMP documented 289 officer-hours of targeted Atlantic salmon enforcement with a combination of aircraft (20 hrs), watercraft (109 hrs), motor vehicle, foot patrol, and surveillance details (160 hrs). Effort spent on general activities enforcement under the JEA also includes time spent on enforcement of other fisheries (ex: striped bass and river herring) co-occurring in many of the same rivers and watercourses. Officers documented 986 officer-hours of targeted General Activities enforcement with a combination of aircraft (26 hrs), watercraft (564 hrs), motor vehicle, foot patrol, and surveillance details (396 hrs). This effort documented as part of the NOAA JEA is in addition to thousands of additional hours spent patrolling and enforcing smelt, alewife, elver, shad and menhaden fishing regulations along Maine's coastal rivers. Of specific note, no Atlantic salmon were observed as bycatch in any state water fisheries. MMP also focussed efforts near the Milford Dam on the Penobscot River targeting Atlantic salmon activity. This effort did not result in any violations. For the Maine Warden Service, Game Wardens spent a total of over 40,000 hours focused solely on fishing. These hours are not broken down into specific species of fish, therefore it is difficult to accurately measure the amount of time focused specifically on the Atlantic salmon. In addition to the incident described in Action F2, three violations were issued to two individuals for issues related to Atlantic salmon:

		On September 24th, 2023 a Maine Warden issued a violation to an individual for operating their ATV in a prohibited area, specifically Temple Stream which is a known Atlantic salmon spawning habitat. This river is heavily monitored by the Department of Marine Resources, Bureau of Sea Run Fisheries and the MWS to ensure Atlantic salmon has the highest survival rate possible. *On April 23rd of 2023, a Maine Warden entered the access road to the Narraguagus River Dam in Cherryfield, Maine and observed several people adjacent to the river at the location known as the "cable pool." This part of the river is ALWAYS closed to fishing to protect endangered Atlantic salmon. He observed one of the men with a fishing rod who cast twice into the river. The Warden issued two violations to this individual: fishing without a license and fishing in a closed area.* In addition to enforcement efforts, both MMP and MWS officers post identification posters along rivers, brooks, and streams to assist anglers in identifying brook trout compared to salmon. The agencies also utilise social media in educating the public surrounding fishing and fish identification. In addition to State law enforcement efforts, Federal law enforcement agents conducted an additional 3 patrols in 2023 covering the Kennebec and Penobscot River watersheds. They had eight angler contacts and observed no citation or violations.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action F4:	Description of action (*as submitted in the IP)*	Reduce mortality of Atlantic salmon by (1) maintaining closures for all directed fisheries for Atlantic salmon consistent with the existing Fishery Management Plan under the Magnuson-Stevens Fisheries Conservation and Management Act and (2) reducing bycatch of Atlantic salmon in fisheries for other species to the maximum extent possible.
	Expected outcome (*as submitted in the IP*)	Zero mortality of Atlantic salmon attributable to (1) directed salmon fisheries and (2) bycatch of Atlantic salmon in other commercial fisheries.

	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Query vessel landings database, dealer purchases database, and the fisheries observer database to ensure that bycatch of Atlantic salmon in other commercial fisheries remains insignificant.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In 2023, there continued to be no directed fisheries for sea-run Atlantic salmon in the United States consistent with the existing Fishery Management Plan issued under the Magnuson-Stevens Fisheries Conservation and Management Act. There are, however, continued small fisheries for domestic broodstock in the Naugatuck and Shetucket Rivers in Southern New England; these rivers are outside the geographic range of endangered Atlantic salmon. We continue to monitor bycatch of Atlantic salmon in commercial fisheries. NOAA maintains a vessel landings database, a dealer purchases database, and an observer database for commercial fisheries subject to federal jurisdiction. To ensure that bycatch of Atlantic salmon in other commercial fisheries remains insignificant, each year, we query these databases. For 2023, our query of the dealer purchases database, vessel landings database and observer database revealed no reports of Atlantic salmon being captured. Reporting is complete through August, 2023.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
3.2 Provide an update on progress on actions relating to Habitat Protection and Restoration *(section 3.5 of the Implementation Plan).* ***Note:*** *the reports under 'Progress on action to date' should provide a* ***brief overview*** *of each action. Please report in relation to the reporting year only or the most relevant recent year. For all actions, provide* ***clear and concise*** *quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. 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 H1:	Description of action (*as submitted in the IP)*	Improve fish passage by removing dams, installing fishways, removing culverts, decommissioning roads, and upgrading road-stream crossings.

	Expected outcome (*as submitted in the IP*)	By 2024, restore connectivity to 5,000 units of suitable Atlantic salmon habitat (as defined in the Atlantic salmon Recovery Plan).
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Enumerate the number of habitat units made accessible each year (2019 – 2024).
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	Progress was made at restoring connectivity through improving fish passage at 20 culverts, and 2 dam projects in 2023. The estimates of habitat gains are provisional and will be adjusted in future annual reports. Only habitat units above projects with unimpeded access from the ocean are considered accessible and count towards our goal of restoring 5,000 units of habitat. For example, a dam removal that occurs upstream of an existing barrier or partial barrier to passage would not be included in the estimate. Habitat gains are reported in habitat units, where 1 habitat unit equals 100m^2. Recognizing the important work that our conservation partners are doing throughout the watersheds where Atlantic salmon live, we are also including a summary of salmon habitats where access was improved but there remains a barrier or partial barrier downstream.

Salmon Habitat Recovery Unit (SHRU)	# of Projects: Dams	# of Projects: Culverts /Bridges	Habitat units made accessible (no barriers below)	Habitats with improved access (partial barriers below)
Downeast Coastal	0	3	4	296
Penobscot Bay	1	17	0	680
Merrymeeting Bay	1		0	64
Total	2	20	**4**	1040

Summary table towards achieving goal of 5,000 accessible habitat units (across all SHRUs):

	2019	2020	2021	2022	2023	Total
Downeas			87	58	4	145

t Coastal							
Penobscot Bay		152			0	152	
Merrymeeting Bay	2,656		36	36	0	2,728	
Total	2,656	152	123	94	4	**3,029**	

NOTE: *We would be remiss if we did not mention the connectivity efforts going on the St. Croix/Skutik River. The St.Croix/Skutik River is the boundary between the United States and Canada from its headwaters in Vanceboro, Maine (USA) to tidewater in Calais, Maine. Milltown Dam (near the head of tide) had blocked fish passage until its removal in the summer of 2023. NB Power (the owner of Milltown Dam) agreed to remove it given the dam's age and high costs of upgrading the facility to meet contemporary requirements for fish passage. Building on the tremendous potential that the removal of Milltown Dam represents, predominately in restoring river herring populations, funding provided by the National Fish and Wildlife Foundation, U.S. Fish and Wildlife Service, and NOAA are jumpstarting efforts to improve fish passage at the next two upstream dams, Woodland Dam and Grand Falls Dam. Feasibility analyses are complete and engineering designs for improvements at these facilities are now well underway. Although the river historically had Atlantic salmon, there are currently no salmon management activities in the St. Croix/Skutik River. Despite not having significant direct benefit to salmon these efforts will contribute towards restoring ecosystem services that support salmon conservation efforts in nearby salmon rivers in both the U.S. and Canada.*

Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
If 'Completed', has the action achieved its objective?	

Action H2:	Description of action (*as submitted in the IP)*	Improve fish passage at hydroelectric dams through dam removal or construction of effective fishways and the implementation of adaptive management strategies to achieve passage efficiency and survival targets for dams that cannot be removed.
	Expected outcome (*as submitted in the IP*)	By 2024, restore connectivity to 10,000 units of suitable Atlantic salmon habitat and reduce mortality and injury of smolts and kelts at hydroelectric dams.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Enumerate the number of habitat units made accessible each year (2019 – 2024). Ensure attainment of passage efficiency and survival targets through adherence to the requirements of regulatory processes (Federal Power Act, Endangered Species Act, Clean Water Act, Magnuson-Stevens Fisheries Conservation and Management Act).
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In 2023, no additional habitat units were restored through dam removal or improved fish passage at hydroelectric dams. Although considerable progress has been made at improving upstream and downstream passage survival and effectiveness at hydroelectric dams throughout Atlantic salmon's present range, no hydroelectric dam in this reporting cycle has yet to attain the very high survival and delay threshold required to consider upstream habitats "accessible" in accordance with recovery goals. For most dams in designated critical habitat, the expectation is that upstream and downstream passage will exceed 95% survival with no more than 24 hours of delay per dam for smolts migrating downstream, and no more than 48 hours of delay per dam for pre-spawn adults migrating upstream. That said, in 2023, NOAA Fisheries completed an Endangered Species Act consultation with the Federal Energy Regulatory Commission (FERC) on their proposal to amend the operating licences of four hydropower projects on the Kennebec River, and to issue a new operating licence for one of those projects. FERC has proposed significant operational and structural changes at these four dams to dramatically improve conditions for endangered Atlantic salmon and other sea-run fish. Improvements to be made at the projects include the construction of new upstream and downstream fishways that will be operated to achieve survival and passage rates of over 95%. Part of the operational modifications at three of these dams include full night time turbine shutdowns during the 54 day smolt migration window which should significantly reduce turbine entrainment.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is*	Ongoing

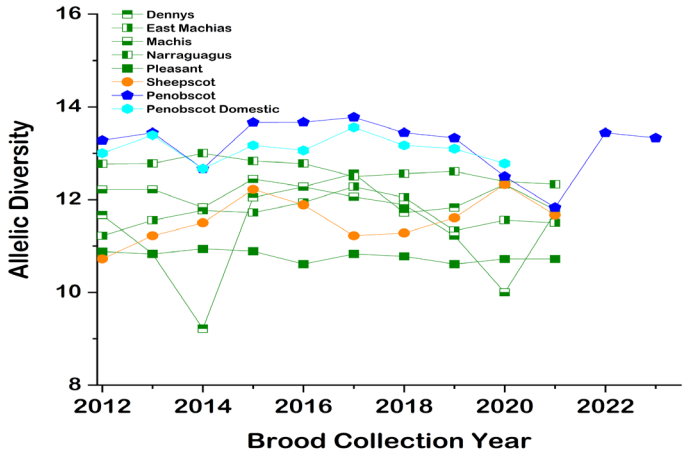
	reported on annually, it should be marked as 'Ongoing')	
	If 'Completed', has the action achieved its objective?	
Action H3:	Description of action (*as submitted in the IP)*	Develop and implement a freshwater protection, restoration, and enhancement strategy by 2024 for each of the three salmon habitat recovery units (actions PBS6.4, MBS7.4 and DES5.4 in the current recovery plan).
	Expected outcome (*as submitted in the IP*)	Geographically explicit freshwater protection, restoration, and enhancement strategy for each of the three recovery units. These strategies will explicitly consider protection of climate-resilient spawning and rearing habitats for each recovery unit in the face of climate change.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	The strategies will use adaptive management to ensure that management actions have a measurable effect on recovery criteria. Progress reports on the development of the strategies will occur for each recovery unit separately to enhance our ability to demonstrate progress toward the overall goal of completing each strategy by 2024.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	This action was completed in 2021 and was considered satisfactory by the RG in 2022. In review, we completed our geographically explicit freshwater protection, restoration and enhancement strategies (five-year work plans) for the three geographic areas where wild salmon remain: Penobscot, Merrymeeting Bay and Downeast. These work plans detail conservation goals and priorities within each geographic area and priority actions necessary to advance these areas towards meeting the delisting criteria identified in the 2019 recovery plan. Each of the recovery teams in these geographic areas are now working to implement these plans.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Complete
	If 'Completed', has the action achieved its objective?	Yes

3.3 Provide an update on progress on actions relating to Aquaculture, Introductions and Transfers and Transgenics *(section 4.11 of the Implementation Plan).*

	***Note**: the reports under 'Progress on action to date' should provide a **brief overview** of each action. Please report in relation to the reporting year only or the most relevant recent year. For all actions, provide **clear and concise** quantitative information to demonstrate progress. In circumstances where quantitative information cannot be provided for a particular action because of its nature, a clear rationale must be given for not providing quantitative information and other information should be provided to enable progress with that action to be evaluated. 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)*	Sea Lice - Minimise sea lice loads on commercial aquaculture fish being reared in marine net pens to reduce risks to salmon in the wild each year. This will be accomplished by mandatory fallowing, monitoring of lice levels (monthly when temperatures range from 6 – 8°C and bimonthly when temperatures exceed 8°C), and mandatory treatments when thresholds for sea lice counts are exceeded (1 gravid female and 5 pre-adult lice).
	Expected outcome (*as submitted in the IP*)	a) Lice loads in marine net pens maintained at a level below the predetermined thresholds, and b) Treatment when necessary (monitoring reveals sea lice levels above threshold levels) to ensure that risks to salmon in the wild remain low.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Monthly surveillance conducted by a third party for pathogens and sea lice required under the State of Maine Fish Health regulations.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	This action was considered unacceptable by the Review Group in our Implementation Plan. It was determined that this action does not demonstrate clear progress towards reducing sea lice loads on wild salmonids although we continue to believe the stringent monitoring, control, and enforcement regime for pathogens and sea lice in salmon aquaculture that we have in place is sufficient in meeting NASCO's goals for sea lice. To effectively implement additional sea lice monitoring over and above our existing monitoring and control program will require additional human and financial resources to oversee the projects planning, management and implementation. Although these are resources we do not have at this time, we are actively looking into ways to strengthen our program and, therefore, continue to look for human and financial resources to conduct the assessments necessary to demonstrate progress towards no increases in sea lice loads or lice induced mortality on wild salmonids.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing

	If 'Completed', has the action achieved its objective?	
Action A2:	Description of action (*as submitted in the IP)*	Containment --- Minimise effects to wild salmon from genetic introgression from escaped aquaculture-origin salmon by ensuring that containment measures are maintained at 100% of all salmon farms each year.
	Expected outcome (*as submitted in the IP*)	No escapees of U.S origin spawning in the rivers containing endangered salmon.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Required use of North American origin and site specific marking of all farmed fish used for commercial production. Annual compliance audits for verifying genetic composition of broodfish and juvenile marking, containment management plans and records; timely reporting requirements for escape events; surveillance of five salmon rivers for the presence of aquaculture-origin salmon.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In 2023, all freshwater hatcheries and marine net pen sites were in compliance with state and federal regulations in place to minimise impacts from commercial production. In 2023, there were two reported escape events totaling approximately 50,000 smolts ranging from 230 grams to 390 grams from two marine net pen sites in Maine. The escapes both occurred in August as a result of seal damage to the containment net. In both instances, there were holes in both the predator and containment nets. It is believed that seals were responsible for these holes allowing for the fish in the pen to escape. It is believed the seal(s) may have initially entered the net by climbing up onto the support ring and getting in between the predator net and containment net. It is unknown at this time how many seals entered each of the pens and how many smolts were consumed by the seals. Following the incident, the two pen sites were each inspected by the MDMR. The MDMR found both of the sites were well maintained and gear was in good condition with no deficiencies observed. In addition, NOAA staff conducted a Containment Management System audit on August 17, 2023. Particular attention was made to the deployment of predator nets on each of the pens to determine if seals were able to access the production fish. While on site for the audit, Facility staff secured an additional net on each of the pens to encircle the entire cage including the support rings. This additional containment net will provide extra protection and should effectively deter seals from entering the pens. Follow up recommendations included: (1) increased monitoring following spring stocking; (2) removing mortalities more frequently, and (3) securely attaching predator nets to the support rings and stanchions to ensure seals cannot enter the space between the containment net and predator net. At this time there have been no reports or observations of the escaped fish in Maine rivers with fish trapping facilities. Any fish escaping from a marine or hatchery facility that is

		recovered in the wild is identifiable back to the rearing site of origin by a unique genetic mark.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A3:	Description of action (*as submitted in the IP)*	Implement broodstock management protocols at conservation hatcheries on an annual basis.
	Expected outcome (*as submitted in the IP*)	Reduce or eliminate the loss in diversity from endangered populations.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Estimates of genetic diversity, such as allelic variability (i.e. number of alleles per locus, allelic diversity), and heterozygosity are obtained through the use of a comparable suite of molecular markers that are consistently used to monitor diversity over time. We will conduct these assessments and report the results annually.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)*	In 2023, we continued monitoring genetic diversity within seven river-specific broodstock populations to ensure the goals of the conservation hatcheries were met. A total of 18 variable microsatellite loci were used to characterize genetic diversity for all individuals considered for use in broodstocks. Individuals characterized represent either parr collected for broodstock purposes (Dennys, East Machias, Machias, Narraguagus, Pleasant, and Sheepscot rivers), or adults returning to the Penobscot River and collected for broodstock at USFWS Craig Brook National Fish Hatchery. These individuals were used for broodstock following removal of potential aquaculture origin individuals, or landlocked Atlantic salmon identified during genetic screening. Annual characterization allows for comparison of allelic diversity between broodstocks, and over time. Currently, estimates of allelic diversity (the average number of alleles per locus) between 2008 and 2021 collection years (or from 2008 to 2023 in the case of the Penobscot broodstock), ranged from 10.69 alleles per locus for the Pleasant River to 13.34 alleles per locus for the Penobscot River.

		
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	
Action A4:	Description of action (*as submitted in the IP)*	Reduce stocking of non-native salmonids in the freshwater range of endangered salmon to ensure that predatory and competitive effects are minimized.
	Expected outcome (*as submitted in the IP*)	Minimally, the current locations for stocking non-native salmonids will be maintained where only the Sandy River is routinely stocked with brown trout.
	Approach for monitoring effectiveness & enforcement (*as submitted in the IP*)	Co-ordination with state programs that stock salmonids to support recreational fisheries; Review of stocking reports and consultation with state authorities. Note: this action (and therefore expected outcome and approach for monitoring) does not lend itself to truly quantitative measures. Instead, reporting will rely on qualitative descriptions of progress in reducing stocking of non-native salmonids from 2019 to 2024 using specific examples (e.g., changes to stocking strategies) whenever possible.
	Progress on action to date *(Provide a brief overview with a quantitative measure, or other justified evaluation, of progress. If sub-actions are completed*	In 2023, there continued to be no stocking of non-native salmonids in the seven rivers that support a river specific stock of endangered Atlantic salmon. However, there continues to be brown trout stocked in the Sandy River, which is actively being managed for Atlantic salmon recovery efforts (The Sandy River does not have its own genetic stock of Atlantic salmon). Stocking of brown trout in the Sandy has either

	during the reporting year, this should be made clear. Other material (e.g. website links) will not be evaluated)	decreased or been maintained throughout the term of this reporting cycle, which is consistent with our expected outcome. **Year** / **Number** 2019 — 4,600 2020 — 3,700 2021 — 3,700 2022 — 3,700 2023 — 3,700 As a product of decades of stocking, brown trout now spawn successfully and have become established in the Sandy River. The impact that brown trout are having on the already very low populations of Atlantic salmon in these systems is not well known. Non-native brown trout and rainbow trout are also routinely stocked in lakes and ponds throughout Maine, but in areas that currently do not support wild sea-run Atlantic salmon. There are also a few rivers that are stocked with brown trout that currently do not have known populations of Atlantic salmon but are designated as Atlantic salmon critical habitat. Over the last year, no additional progress has been made to further reduce the stocking of non-native salmonids (i.e., brown trout) to minimise interactions with wild Atlantic salmon although such stocking has not increased.
	Current status of action *(Please note: 'Completed' means that the overall action is complete for the lifetime of the third reporting cycle. If it is an ongoing action that is reported on annually, it should be marked as 'Ongoing')*	Ongoing
	If 'Completed', has the action achieved its objective?	

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.
N/A
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.
N/A
4.5 Details of any actions taken to implement regulatory measures under Article 13 of the Convention including imposition of adequate penalties for violations.
N/A
North American Commission Members only:
4.6 Details of any new measures to minimise bycatches 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