

	<p style="text-align: center;"><b>Council</b></p> <p style="text-align: center;"><i>Generic Terms of Reference for the Working Groups for the Revision of NASCO's Guidelines</i></p>	<p style="text-align: center;"><b>CNL(25)53</b></p>
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## ***Generic Terms of Reference for the Working Groups for the Revision of NASCO's Guidelines***

### **Background**

At its 2024 Annual Meeting, [CNL\(24\)88rev](#), the Council of NASCO agreed to adopt ‘The Future of NASCO – a Ten-Year Strategy’, [CNL\(24\)71rev](#), which incorporates NASCO’s high-level actions in a single document. As part of this Action Plan, Council agreed:

- o *‘to update, and consolidate as appropriate, NASCO’s Resolutions, Agreements and Guidelines, incorporating climate change and other factors (see Annex 1 of ‘The Future of NASCO – a Ten-Year Strategy’, [CNL\(24\)71rev](#)) as key elements of the review with the following priority order, which may change:*
  - *habitat: commence 2025; plan to complete 2026;*
  - *aquaculture and disease: commence 2026; plan to complete 2027; and*
  - *fisheries commence 2027; plan to complete 2028.’*

The high level Action Plan contained within the Ten-Year Strategy noted that these actions were for delivery by Theme-based / Expert Working Groups. The Secretariat was asked to make any appropriate arrangements to undertake the work.

### **Generic Terms of Reference for the Working Groups to Revise NASCO’s Guidelines**

Given that the tasks that each Working Group will carry out will be similar, these Terms of Reference can be used for each of the Working Groups that will be formed to carry out the revisions for each of NASCO’s theme areas as Council envisaged.

***Each Working Group is tasked*** with considering each of the documents within each theme area identified below, by Council, and whether they can be merged, revised, or redrafted based on developments since they were agreed, to produce a set of up-to-date best management practice guidance for each theme area:

1. Habitat Working Group:
  - i. ‘Guidelines for the Protection, Restoration and Enhancement of Atlantic Salmon Habitat’, [CNL\(10\)51](#).
2. Aquaculture and Disease Working Group:
  - i. ‘Guidance on Best Management Practices to Address Impacts of Sea Lice and Escaped Farmed Salmon on Wild Salmon Stocks’, [SLG\(09\)5](#); and
  - ii. ‘Guidelines on Containment of Farm Salmon’, [CNL\(01\)53](#).
3. Management of Salmon Fisheries in the Light of Rapid Change Working Group:
  - i. ‘NASCO Guidelines for the Management of Salmon Fisheries’, [CNL\(09\)43](#);
  - ii. [‘Guidelines on Catch and Release’](#);
  - iii. ‘Minimum Standard for Catch Statistics’, [CNL\(93\)51](#); and
  - iv. Decision Structure For Management of North Atlantic Salmon Fisheries, [CNL31.332 / 2002](#).

Each Working Group is also asked to incorporate a number of issues related to the revision of each set of guidelines (see ‘Working Methods’ section below):

Each Working Group will produce a brief report for Council, by 30 April in the relevant year, setting out its approach and key decisions, together with its proposed guidance, and will report its proposed guidance to Council at the appropriate Annual Meeting in the agreed timeline.

### ***Membership***

Membership of each Working Group will be decided by Council at the appropriate Annual Meeting with reference to the timeline agreed in 2024, see ‘Background’ above.

### ***Working Methods***

Council has agreed revised ‘Cross-cutting Directions and Assignments for all Revisions / Updates’ – see Annex 1 of ‘NASCO’s Action Plan Update 2025’, [CNL\(25\)79](#) – that need to be followed by each Working Group, including incorporating:

- recommendations from NASCO’s third performance review, the 2019 Tromsø Symposium and the 2023 Theme-based Special Sessions on climate change, as follows: EPR9, EPR45, T3, TBSS1(3), TBSS2(1), TBSS2(3) and TBSS(2)4 (see Annex 1 for the full text for each recommendation);
- NASCO’s ‘Agreement on Adoption of a Precautionary Approach’ ([CNL\(98\)46](#));
- NASCO’s ‘Guidelines for incorporating social and economic factors in decisions under the Precautionary Approach, ([CNL\(04\)57](#)); and
- all relevant international agreements, guidelines, and best practices such as the agreement on Biodiversity Beyond National Jurisdiction.

Each Working Group must consider:

- the recommendations from: NASCO’s third performance review; the 2019 Tromsø Symposium; the 2023 Theme-based Special Sessions on climate change that relate to the three theme areas; and the Working Group on Future Reporting developing NASCO’s fourth reporting cycle; to consider whether the recommendations can inform the revision / update of NASCO’s Guidelines as follows (see Annex 2 for the full recommendation text):
  - habitat – recommendations EPR8, EPR15, EPR 16, T3, WGFR2, WGFR5 and WGFR6;
  - aquaculture and disease – recommendations EPR11, EPR18, EPR19, EPR20, EPR21, EPR22, EPR28, T8, T9, WGFR3 and WGFR4; and
  - management of salmon fisheries in the light of rapid change – recommendations EPR14, EPR25 and WGFR7.

Additionally, each Working Group should use the following working methods:

- each Working Group shall meet inter-sessionally as required, to address its Terms of Reference;
- meetings shall be either in person (with a hybrid option), in NASCO’s HQ in Edinburgh, or via video conference, unless a group member offers to host a hybrid meeting;
- each Working Group shall decide how to conduct its business to allow it to address its Terms of Reference effectively;
- in conducting its work, each Working Group may wish to communicate with, and request

information from experts in the field, where appropriate;

- each Working Group should seek consensus in agreeing its report and in drafting its revisions to NASCO's Guidelines; and
- the Secretariat will provide logistical support and background information to the Working Group.

***Full Text for the Recommendations in the ‘Cross-cutting  
Directions and Assignments for all Revisions / Updates’***

**EPR9**

As regards climate change, the Panel recommends that NASCO

- a) develops a dedicated instrument (e.g. a Plan of Action) on climate change or fully and systematically integrates considerations of climate change into its Resolutions, Agreements and Guidelines;
- b) agrees that the IPs for the next reporting cycle will include a new section on ‘Adaptations to Global Warming/Climate Change’;
- c) specifies that climate change ‘Adaptations’ be included in individual Salmon Habitat Protection and Restoration Plans; and
- d) convenes a Theme-based Special Session to identify a suite of practical Adaptive Strategies and their effective deployment that could be used by managers to protect salmon freshwater habitats from hydrological and thermal stress.

**EPR45**

The Panel recommends that the NASCO Council should consider strengthening its existing instruments by further operationalizing them and thereby ensure, among other things, that their content becomes more specific, stringent and prescriptive. This could be carried out by means of a systematic, step-by-step approach for all of the existing instruments

**T3**

Given the importance of habitat and water quality conservation as a key strategy to conserve salmon into the future, NASCO should update its 2010 ‘Guidelines for the Protection, Restoration and Enhancement of Atlantic Salmon Habitat’. Updated guidelines should not only consider the physical environment and include estuaries but should also seek to optimise water quality by considering the chemical and biological quality (e.g. toxic substances, diffuse agricultural pollution, persistent organic pollutants) as well as availability and distribution of prey in the future.

**TBSS1(3)**

Council may wish to consider the incorporation of best practice related to climate change and salmon management into NASCO’s relevant Resolutions, Agreements and Guidelines when reviewed and revisited.

**TBSS2(1)**

Recommendation that Parties / jurisdictions consider taking a strategic multidisciplinary approach when developing and implementing their climate adaptive management measures. All reasonable opportunities should be taken to incorporate wider stakeholder views into decision making, including where appropriate, collaboration with other agencies, Non-Governmental Organizations and all relevant stakeholders.

### **TBSS2(3)**

Recommendation that Parties / jurisdictions consider incorporating the below identified best practices, as reported on in the TBSS papers, as part of their climate adaptive management strategy:

- a. Increase access to and implement protection of thermal refuges to mitigate effects of increases in water temperatures in salmon rivers;
- b. Restore and maintain connectivity when it is compromised by climate change related effects. For example, river flows, estuarine thermal barriers, renewable energy infrastructures;
- c. Develop a strategically designed, quality controlled national river temperature monitoring network;
- d. Develop ‘warm water protocols’ for recreational fishing to minimize the negative impacts of catch and release on recreationally caught salmon;
- e. Management strategies that seek to improve the climate resilience of rivers with consideration for nature-based solutions;
- f. Ensure that genetic and phenotypic diversity of all salmon populations is maintained to optimize their adaptive capacity;
- g. Maintain existing and, where appropriate, initiate new long-term population monitoring programs (e.g. life stage abundance and distribution, life history traits, harvest, origin) to provide critical data needed to evaluate population dynamics in the face of a changing climate; and
- h. Identify actual or potential invasive biota and pathogens presenting risk to wild salmon, whose occurrence may be increased by climate change; develop and apply remedial measures.

### **TBSS(2)4**

Recommendation that Parties / jurisdictions consider identifying knowledge gaps through implementing the above recommendations, and through other means, that are preventing effective management actions to mitigate the impacts of climate change. These knowledge gaps could be collectively reviewed to assess if NASCO can facilitate the information sharing needed, or if a request for scientific advice from NASCO to ICES would be needed.

***Full Recommendation Text to Inform the  
Revision / Update of NASCO's Guidelines***

**Habitat**

***EPR8***

The Panel recommends that NASCO arrange for the development of Salmon Habitat Protection and Restoration Plans, produced on an individual river system basis.

***EPR15***

The Panel recommends that NASCO considers facilitating the operationalisation of the IPs by directing Parties and jurisdictions to develop specific Salmon Habitat Protection and Restoration Plans as envisaged and set out in CNL(01)51 and operationalised further in CNL(10)51.

***EPR16***

The Panel recommends that NASCO directs Parties and jurisdictions to adopt a pressure and actions mapping tool approach for targeting habitat stressors in aquatic environments equivalent to that under development in Scotland, including sensitivity to climate change.

***T3***

Given the importance of habitat and water quality conservation as a key strategy to conserve salmon into the future, NASCO should update its 2010 'Guidelines for the Protection, Restoration and Enhancement of Atlantic Salmon Habitat'. Updated guidelines should not only consider the physical environment and include estuaries but should also seek to optimise water quality by considering the chemical and biological quality (e.g. toxic substances, diffuse agricultural pollution, persistent organic pollutants) as well as availability and distribution of prey in the future.

***WGFR2***

Consider further guidance in respect to habitat quality.

***WGFR5***

Consideration of smolt quality, either as an indicator for habitat quality and overall habitat productivity or as an element of its own.

***WGFR6***

Consider changing environmental conditions as a driver for changes in habitat quality.

**Aquaculture and Disease**

***EPR11***

In recognising that substantial population structuring occurs within many large river systems and that this can have ramifications for the management of fisheries and the protection of biodiversity – especially in the case of genetic introgression from farm escapes – the Panel recommends that NASCO considers developing innovative approaches deploying available technologies (sampling, genetics, electronic fish counters).

## **EPR18**

The Panel recommends that NASCO Parties create dedicated, independent government inspectorates with accompanying legal regulatory powers to effectively implement relevant NASCO instruments to address the impacts of sea lice and farmed escapes.

## **EPR19**

To assist the work of these inspectorates, the Panel recommends that NASCO prescribes that physical tagging of farmed salmon using conventional tagging methods such as coded wire tags or passive integrated transponder tags be mandatory for salmon smolts introduced into sea farms. The use of genetic methods is not recommended for this purpose. While these are capable of accurate tracing, they are less practical in this context and are open to challenge because of the statistical nature of assignments.

## **EPR20**

As is being currently trialled in Canada to facilitate the farming of European origin fish, the Panel further recommends that sterilisation of farmed salmon should be considered a viable option for reducing genetic impact of farm escapes in all salmon farming areas.

## **EPR21**

To aid with management and adherence to regulation, the Panel recommends that the routine and systematic monitoring of rivers for the quantification of genetic introgression in individual rivers be undertaken by Parties and jurisdictions across the species distribution similar to those programs being deployed currently in Norway and Scotland.

## **EPR22**

To aid with management and adherence to regulation, the Panel recommends that the Norwegian sea lice pressure assessment protocol be adopted in all salmon farming areas across the species range taking account of lice loads, lice contact zones and estimates of lice drift.

## **EPR28**

The Panel recommends that NASCO strengthens its instruments on addressing the adverse effects of salmon farming by further operationalising them and thereby ensure, among other things, that their content becomes more specific, stringent and prescriptive.

## **T8**

Given the continued impacts of domestic salmon farming on wild salmon, NASCO should strengthen compliance to the agreed international goals of ‘100% farmed fish to be retained in all production facilities and, 100% of farms to have effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms’. This is as stated in the 2009 ‘Guidance on Best Management Practices to Address Impacts of Sea Lice and Escaped Farmed Salmon’.

## **T9**

NASCO should establish a new goal to prevent the spread of disease pathogens from fish farms to wild fish consistent with the existing goals on containment and sea lice in the 2009 ‘Guidance on Best Management Practices to Address Impacts of Sea Lice and Escaped Farmed Salmon’, and the 2016 ‘Theme-based Special Session: Addressing Impacts of Salmon Farming on Wild Atlantic Salmon’.

### ***WGFR3***

Consider defining aquaculture in the context of salmonid and salmon aquaculture, and commercial aquaculture versus conservation hatcheries.

### ***WGFR4***

Consider inclusion of freshwater operations in consideration of salmonid aquaculture.

## **Management of Salmon Fisheries in the Light of Rapid Change**

### ***EPR14***

The Panel recommends that NASCO follows through with its commitment in paragraph 5 of the 1998 Agreement on Adoption of a Precautionary Approach (CNL(98)46) to operationalise the Precautionary Approach for the by-catch of salmon in other fisheries. As part of this effort, NASCO and its Parties:

- a) should aim to identify a suite of technical measures that might be deployed to protect salmon while at the same time limiting the impact on the fisheries. Such measures could include area-based management tools such as (dynamic) areas closed to certain types of fishing during certain times of the year; and
- b) should co-operate and co-ordinate with NAFO and NEAFC where appropriate.

### ***EPR25***

The Panel recommends that NASCO and its Parties strengthen their efforts to decrease unreported catches in all salmon fisheries conducted by NASCO Parties. NASCO could consider commissioning an external independent assessment of unreported catches.

### ***WGFR7***

Consider fisheries management in terms of larger or broader consideration of catch and release impacts.