Agenda item 5.1
For information

Council

CNL(19)43

Salmon farming: NGOs demand that Governments honour the Williamsburg Resolution commitments

(Tabled by the NGOs)

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NASCO NGO Position on Aquaculture

Introduction

NASCO has a clear position on minimising the adverse impacts of aquaculture on wild stocks of Atlantic salmon. NASCO's Williamsburg Resolution and guidance on Best Management Practices to address impacts of sea lice and escaped farmed salmon on wild salmon stocks, developed by the international Salmon Farmers' Association (ISFA)/NASCO Liaison Group, are designed to minimise the impacts of aquaculture.

The international goals of the Best Management Practice guidance are:

- 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.
- 100% farmed fish to be retained in all production facilities.

The NASCO NGOs wish to see clear progress in meeting these goals, through regulatory systems which are ***robust***, ***transparent***, ***enforceable*** and ***enforced***. There should be clear expressions of progress towards meeting these goals set out by the parties in the Implementation Plans and Annual Progress Reviews. We do not consider that any of the parties with significant farmed salmon production and wild fish stocks currently meet the international goals.

The NASCO NGOs recognise that the impacts arising from aquaculture represent only one of a number of pressures that salmon face across their native range. It is important that these impacts are prioritised and addressed. However, the impacts of aquaculture on wild fish are well understood and more can be done now to ensure that the regulatory systems across the parties suitably address these impacts.

The NASCO NGOs are of the view that environmental performance of salmon farms within farm management areas, including cumulative impacts arising from multiple farms, should be assessed using a suite of indicators tailored to specific local circumstances. Monitoring of impacts on wild fish, as set out below, is a vital element of the regulatory regime for finfish farming. Such monitoring programmes should be based on peer-reviewed scientific evidence and fully statistically scoped to take into account statistical power and anticipated effect size.

The NASCO NGOs are of the opinion that the burden of evidence for assessing impacts on wild fish should sit with the aquaculture industry. Lack of specific evidence in a particular jurisdiction should not have a bearing on the need to demonstrate compliance with the international goals. It is also important to emphasise that wild migratory fish do not remain within one jurisdiction and therefore consistency in regulation between jurisdictions is an important element of regulation.

The remainder of this document sets out what the NASCO NGOs wish to see, in relation to a number of key impacts on wild fish. In doing so, we have focussed on outcomes, rather than specific solutions. Unless there is a demonstrable alternative means of achieving the outcomes

set out below, we remain of the view that closed containment[1] is the only current long-term solution to addressing the impacts highlighted below.

1. Sea Lice

Objective: *To achieve zero mortality of wild fish from sea lice arising from salmon farms*

- **Transparency of information**: Compulsory weekly reporting of relevant information, published on a farm-by-farm basis, on a public website[2]. This information should include: number of adult female sea lice per fish; total number of fish on the farm; sea temperature; and all treatments undertaken, including the number of cleaner fish deployed.
- **Monitoring of sea lice on wild fish**: Compulsory monitoring of sea lice on wild salmon, sea trout and arctic charr (where appropriate). This monitoring approach should be set at a scale appropriate to local wild fish populations and farm management areas (areas under which synchronous farm management should occur) and should take into account the migratory routes of salmon from within, and out with, that jurisdiction. Where adherence with the international goal for sea lice cannot be demonstrated, strict regulatory action on the farms should be initiated, including immediate mandatory harvest and restrictions on future stocking.
- **Threshold lice levels:** Impacts on wild fish arising from sea lice are a function both of the number of lice per fish and the number of farmed fish in the area. Any threshold based on number of sea lice per fish should be accompanied by an additional area lice threshold, which takes into account the number of farmed fish in the area. Ultimately, an absolute maximum limit of sea lice on farmed fish should be set with the purpose of meeting the international goal for sea lice. Until such time as there is sufficient local information and/or evidence (including total farmed biomass within a specified area and monitored impacts on wild fish) to determine a specific sea lice threshold for each farm management area a default threshold of 0.1 adult female lice/fish should be adopted throughout the year. This should then be adjusted up or down depending on the results of monitoring of wild fish populations.
- **Sea lice treatments:** Prior to consenting a new farm, or additional production on an existing farm, regulatory authorities should be content that the farm in question has the capacity to treat efficaciously sea lice at all stages of the production cycle to ensure that they can achieve zero mortality of wild fish arising from the farms in the area. Any such assessment should take into account the past record of sea lice control in the area, and include the capacity for all farms within the management area to undertake coordinated treatment, within a timescale appropriate to that area in question. Any non-medical treatments (e.g. physical treatments) utilised should capture dislodged lice to ensure that they do not re-enter the environment.
- **Boundaries of farm management areas determined by sea lice dispersal:** Farm management areas should be based on sea lice dispersal monitoring to minimise the risk of transfer of farm-derived sea lice between management areas.

[1] Closed systems, or closed containment farming methods, use a barrier to control the exchange between farms and the natural environment. This significantly reduces pollution, fish escapes, negative wildlife interactions, and parasite and disease transfer from farms to marine and freshwater ecosystems.
[2] For example: www.barentswatch.no.

2. **Escapes**

Objective: *To achieve zero escapes of farmed salmon*

- **Transparency of information**: There should be a legal requirement for all escapes and suspected escapes to be immediately notified on a public website.
- **Strict penalties/sanctions should be in place for escapes:** This is consistent with the polluter-pays principle.
- **Legal requirement for farms to take responsibility for the re-capture of farmed fish:** Where a known escape has occurred the farm in question should have responsibility for financing mitigation measures. The contingency plan should be put out for consultation/approval and equipment put in place prior to the stocking of the site. Where the source of escaped fish is unknown, the aquaculture industry in the jurisdiction should take collective responsibility, in line with the polluter-pays principle.
- **Fish farms to be required to tag/mark/identify all farmed salmon**: This is with the purpose of being able to identify all farmed salmon in the wild, to their farm of origin. Such tags/marks should be visible in order that farmed fish are immediately identifiable.
- **Appropriate standards for fish farm equipment to be developed and regularly reviewed**: Meeting such standards should be a legal condition of consent. The standards should cover all aspects of farming equipment which relate to containment of farmed fish, taking into account the size of fish stocked into the farm.
- **Monitoring of impacts on wild fish**: Fish farmers should have a legal obligation to fund monitoring of local salmon stocks for genetic introgression (baseline and ongoing monitoring). Where introgression of farmed genes is found in wild populations this should influence regulatory decisions for future stocking of farms, assessments of adequate containment measures etc. The aquaculture industry should also be responsible for financing mitigation measures in rivers with a high prevalence of escaped farmed fish.
- **There should be a strong presumption against the use of transgenic fish**: Given the current lack of scientific knowledge on the impact of transgenic salmonids on wild stocks, we consider the use of such fish to be of particularly high risk.

3. **Diseases and other parasites**

Objective: *To achieve zero mortality of wild fish from diseases and/or parasites arising from salmon farms*

- **Transparency of information**: All disease outbreaks should be immediately notified on a public website.
- **Farm management areas:** In addition to sea lice dispersal, the boundaries of management areas should take into account the potential for disease transfer between areas.
- **Monitoring of incidence of disease on wild fish**: All jurisdictions should have a monitoring programme to assess and quantify incidence of disease arising from salmon farms on wild fish. The results of such monitoring should be taken into account in the determination of regulatory decisions for future stocking of farms.

4. **Pollution**

Objective: *To minimise the impacts of fish farm pollution and sea lice treatments on benthic environments*

There is considerable concern amongst NGOs about benthic impacts arising from fish farm pollution and sea lice treatments, particularly in relation to important marine habitat and feeding grounds for sea trout and sea going arctic charr. Whilst there are also wider legitimate concerns about such pollution, these fall out with the scope of this paper.

- **Benthic impacts:** All benthic impacts to be contained within defined areas as set out by the appropriate regulator and important marine habitats to be identified and protected.
- **Monitoring:** Regular independent monitoring of benthic impacts with penalties for breaches.

5. **Independent monitoring**

Objective: *To ensure that the factors highlighted above are assessed and reported in such a way that the public can have faith in the results.*

- **All metrics regarding lice, escapes, diseases, parasites, pollution and abstraction should be monitored by an independent 3rd party**: Regular, unannounced audits, in addition to direct monitoring should be undertaken by regulators or independent monitors. The costs of such audits and monitoring should be built into production licenses.
- **Strict penalties for incorrect reporting, missing information or late reporting**: All monitoring should be a legal requirement with penalties for the above set out in legislation.