



**Council**

**CNL(03)42**

**Meeting of *ad hoc* group to address issues  
relating to the Precautionary Approach**

## Meeting of *ad hoc* group to address issues relating to the Precautionary Approach

The Group was asked to address questions relating to:

- the use of the 'Decision Structure to Aid the Council of NASCO and the Relevant Authorities in Implementing the Precautionary Approach to Management of North Atlantic Salmon Fisheries'; and
- the development of 'Guidelines on Precautionary Approach as it pertains to Stock Rebuilding Programmes'.

### Decision Structure

When the SCPA revised the NASCO Decision Structure in 2001, it was not considered appropriate to develop a prescriptive process because this was unlikely to be compatible with the wide range of regulatory approaches employed by different countries. As a result the Decision Structure was designed to provide a clear record of how management decisions had been made for each fishery rather than to lead managers through a series of decision steps. This does not appear to be entirely clear in the introduction to the Decision Structure (CNL31.332).

The *ad hoc* Group discussed how the Decision Structure was being used and concluded that while most Parties were employing it to provide a record of decisions taken, some had used it to provide guidance to managers on how to reach management decisions. Several Parties noted that, in distributing the Decision Structure to managers, they had prepared their own guidance on how it could/should be used. Despite the apparent slight uncertainty about its main purpose within NASCO, it was felt that both applications of the Decision Structure were of value. The Group did not consider any change was required to the Decision Structure itself.

The Group fully supported the Council's wish that the Decision Structure be applied widely by managers to as many fisheries as possible and that this should therefore be encouraged and promoted. To facilitate this, the Group thought that national authorities could provide additional guidance on its use within the context of national legislation, and suggests that such guidance might be made available to other Parties.

The Group noted the Council's desire that information be collected on the implementation of the Decision Structure, as reported in CNL(03)14, but suggests that the information requested annually by NASCO's on the use of the Decision Structure could be simplified as follows:

1. Provide a summary of the fisheries for which the Decision Structure has been applied, indicating whether it has been used as a guide to or a record of management decisions;
2. Indicate where/how completed Decision Structure forms are being compiled and retained;
3. Provide comments on the how useful managers have found the Decision Structure and suggestions for how it might be improved.

## Stock Rebuilding Programmes

In 1998, NASCO and its Contracting Parties agreed to apply a Precautionary Approach to the conservation, management and exploitation of salmon. The NASCO agreement states that the application of a Precautionary Approach requires that:

- all salmon stocks in the NASCO Convention Area should be maintained above their conservation limits by use of management targets (these should be set for each river and combined as appropriate for the management of different stock groupings defined by managers); and
- **stock rebuilding programmes** (including, as appropriate, habitat improvement, stock enhancement and fishery management actions) should be developed for stocks that are below their conservation limits.

The inclusion of 'stock rebuilding programmes' within these requirements reflects similar clauses in other agreements on the Precautionary Approach (e.g. UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks). NASCO has not yet determined what form the 'Stock Rebuilding Programmes' should take but has proposed that it would be helpful if a common format was adopted by all Parties. In 1999, ICES provided preliminary advice on a '*framework for stock rebuilding programmes*' but it was anticipated that this would be further developed by NASCO.

The Group agreed that it would be appropriate for NASCO to develop guidance on the use of Stock Recovery Programmes and that this guidance should have two purposes:

- To provide guidance on the overall process of establishing a Stock Rebuilding Programme and what such a programme might consider;
- To provide guidance to ensure that management actions proposed within a Stock Recovery Programme are themselves precautionary.

The Group prepared a preliminary draft of '*Guidelines On The Use Of Stock Rebuilding Programmes In The Context Of Precautionary Management Of Salmon Stocks*' (Annex 1) and proposed that if the Council wished to see this developed further this might be achieved by correspondence possibly with a short/small intersessional working group to finalise the document.

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### Members of Ad Hoc Group:

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Christopher Legault (USA)  
Joan Trial (USA)  
Malcolm Beveridge (EU)  
Mary Colligan (USA)  
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Ted Potter (EU) (Chair)



## ANNEX 1

### PRELIMINARY OUTLINE DRAFT OF:

#### **GUIDELINES ON THE USE OF STOCK REBUILDING PROGRAMMES IN THE CONTEXT OF PRECAUTIONARY MANAGEMENT OF SALMON STOCKS**

NASCO has proposed that stock rebuilding programmes (SRPs) should be developed for all stocks that fall below their Conservation Limits. The following points might be considered as part of an SRP:

##### **1. Compliance assessment:**

- 1.1 Nature of CL compliance failure:** The type and extent of the management actions required will depend upon the nature of the compliance failure (e.g. failure by more than X% for more than Y years) and the limiting factors affecting the stock. A range of options might be considered depending upon the nature of the failure.
- 1.2 Risk assessment:** The numbers of salmon returning to spawn can be highly variable and so the stock will sometimes fall below the CL simply as a result of natural variation. Clearly, the further that a stock falls below its CL and the more years for which it does this, the greater the probable need for management action. Some form of risk assessment will therefore be required.
- 1.3 Recent compliance history:** Where the stock falls below the CL for only a single year (or a very short period) consideration might also be given to the margin by which the CL was exceeded in other years. If the stock has been well above the CL in recent years this may suggest that the current management practices are appropriate under most normal circumstances and there may be less reason to consider extensive management changes.

##### **2. Evaluation of the problem:**

- 2.1 Assessment of causes:** Stocks may fall below their CLs as a result of reduced production and/or increased mortality, and both can result from natural or anthropogenic factors (including fishing). The possible causes of compliance failure may be assessed under the following headings:
  - **Natural environmental change:** including rainfall and river flow patterns, river temperatures, sea surface temperatures, marine currents;
  - **Habitat degradation:** including water quality (including sub-lethal effects), Water chemistry (e.g. pH), water quantity caused by man-made structures or extractions, spawning and juvenile habitat (e.g. sediments & reduced carrying capacity), factors affecting food production, obstructions to smolt or adult migration (and entrainment), fish farming.
  - **Interactions:** including fish/bird/mammal predators in sea/freshwater, diseases and parasites (e.g. sea lice), competition with native species, competition with introduced species (e.g. stocking effects); wild/farmed fish (e.g. fish farms).

- **Exploitation:** including by-catches of post smolts, marine salmon fisheries, by-catches in homewater fisheries, directed homewater net and rod fisheries, non-catch fishing mortality, exploitation of prey species

**2.2 Differential effects on stock components:** stock components may be affected in different ways by different factors and it is important to identify those components in greatest need of protection or restoration. For example, age groups may be differentially affected by fisheries and tributary populations may be differentially affected by water quality problems.

### **3. Development of management plan:**

**3.1 Identify remedial measures:** management proposals should be developed on the basis of a full assessment of the problems. The following factors should be considered in developing a programme of remedial measures:

- **Environmental change:** proposals for remedial measures must take account of best predictions of the likely duration and extent of any environmental change, and whether the environmental change is likely to progress further; these assessments may affect decisions on other factors;
- **Interactions:** there is a need to assess the potential impact of predators taking into account known characteristics of salmon and predator biology and population dynamics; and to consider possible sources of disease from wild and reared stocks, the effects of any stocking programme and any changes in stocks of other native species.
- **Habitat degradation:** decisions on remedial habitat work should be based on identification of whether the cause of a production bottleneck is natural or man-made (NB it may not be appropriate to try to reverse natural changes), and whether the effect is reversible (irreversible changes may require reassessment of the CL); [Cross reference to Action Plan for Habitat Protection and Restoration]
- **Exploitation:** there is a need to determine need for exploitation control based upon assessment of how fisheries are contributing to the stock decline (long-term changes may be required); exploitation control may only be required while other problems are remedied (short-term measures may be appropriate) [Cross reference to Decision Structure]

**3.2 Develop management programme:** The possible management measures should be developed into a programme, and action taken to ensure all activities are themselves precautionary. This should include predictions of the expected effects of the proposed measures and the estimated rebuilding trajectories for the stock returning above the CL. This will permit an assessment of the effectiveness of the measures, which is a further requirement of the application of a precautionary approach.

### **4. Interim measures**

**4.1 Stocking:** Consideration should be given to the need for stocking, where appropriate, or in order to circumvent particular stock bottlenecks, although this should generally only be considered as an interim stock protection measure. [Cross reference to Stocking Guidelines]

- 4.2 Interim conservation limits:** Where the stock has fallen well below the CL or has been below the CL for an extended period, it may be appropriate to consider an intermediate 'recovery' CL or to set a goal of an annual average percentage increase. This may be required where CLs are unattainable in less than one full generation for one or more stocks.

**5. Socio-economic factors**

- 5.1** All Management Proposals should be evaluated against socio-economic considerations. Managers might also have to consider whether there is a need to permit a residual fishery to continue (e.g. catch and release angling or heritage netting) for socio-economic reasons.

**6. Monitoring and Evaluation of progress:**

- 6.1** Project timescales should be developed with interim targets and deliverables.
- 6.2** Progress should be assessed against the predictions for the different management measures, including trajectories for stock recovery, and objectives should be reviewed at intervals during the recovery process.
- 6.2** Data collection programmes should be put in place to permit appropriate progress evaluation.