



Association of Salmon Fishery Boards

ASFB Comments on National Marine Plan

January 2011

Introduction

The Association of Salmon Fishery Boards is the representative body for Scotland's 41 District Salmon Fishery Boards (DSFBs) including the River Tweed Commission (RTC), who have a statutory responsibility to protect and improve salmon and sea trout fisheries. The Association and Boards work to create the environment in which sustainable fisheries for salmon and sea trout can be enjoyed. Conservation of fish stocks, and the habitats on which they depend, is essential and many DSFB's operate riparian habitat enhancement schemes and have voluntarily adopted 'catch and release' practices, which in some cases are made mandatory by the introduction of Salmon Conservation Regulations. ASFB create policies that seek where possible to protect wider biodiversity and our environment as well as enhancing the economic benefits for our rural economy that result from angling. An analysis completed in 2004 demonstrated that coarse and game angling in Scotland results in the Scottish economy producing over £100 million worth of annual output, which supports around 2,800 jobs and generates nearly £50million in wages and self-employment into Scottish households, many of which are in rural areas.

We welcome the opportunity to comment on the pre-consultation draft of the national marine plan. Whilst we appreciate that the draft is work in progress and reflects developmental work by officials which has not yet been discussed with Ministers, we have significant concerns with the plan as set out, which are covered in detail below. A major, overarching concern is the lack of integration between sectors and indeed, in some instances, the sector objectives are incompatible or contradictory. It is vital that the National Marine Plan sets the framework in which the planning system can effectively identify, assess and address conflicts and identify compatibilities.

National Marine Plan Key Objectives

Page 9: Section 5(3) of the Marine (Scotland) Act states: A national marine plan...is a document which-

- (a) States the Scottish Ministers' policies (however expressed) for and in connection with the sustainable development of the area to which the plan applies.

However, page 9, when discussing the Greener strategic objective states that the most relevant purpose target is the reduction of emissions. Whilst the reduction of CO₂ emissions is clearly important, this is far too narrow a description of sustainability and it is important that the concept of *living within environmental limits* (using a wider definition than climate change alone) is encompassed here.

Climate Change Objectives

Page 12: We support the statement that 'a healthier ecosystem will deal with the impact of climate change more easily than a less healthy ecosystem and therefore the ecosystem objectives set in the marine plan will have a role to play in managing the adaptation to climate change'. We are concerned that the sub-section on climate change has been removed from an earlier draft of the marine nature conservation section. This sub-section included the following text which we believe is a key strategy for climate change

adaptation and should be reinstated: *'Healthy ecosystems are likely to be more resilient and this could mean offering protection to species and habitats at risk by minimising additional pressures such as those which are man induced'*.

Interactions Matrix

Page 14: We have serious concerns that many of the potential interactions with wild salmonids are given too low a rating here, and that the ratings are inconsistent with information included elsewhere in the document. Of particular concern are the ratings of low-medium for commercial sea fisheries (inconsistent with information on page 50 – see below), low for aquaculture (inconsistent with the text on Page 49 and entirely inappropriate) and low for telecoms and cabling (there is currently a high degree of uncertainty regarding the potential effects of electro-magnetic fields on migratory fish – see below). We believe that these ratings should be altered to medium-high/high for commercial sea fisheries (particularly in the case of sea trout which remain close to the coast throughout the marine phase of their lifecycle); high for aquaculture (particularly in relation to disease and parasite transfer and escapes); and, given the lack of information on the effects of EMFs on migratory fish but the clear potential for negative effects, we believe that the rating for telecoms and cabling should be altered to low-medium/medium-high on a precautionary basis.

Aquaculture

Page 30: We welcome the continued policy that there should be no new production facilities on the north or east coasts, but additional policies should also address the issues between wild fish and aquaculture on the West Coast. We have highlighted a possible traffic light system for development below (Wild Salmon and Freshwater Fisheries).

Page 31: The final sector objective is defined too narrowly. In some instances it may **not** be possible to reduce the environmental impact to acceptable levels by relying on good husbandry practice and bioremediation (due to effects on wild fisheries but equally this could apply to the wider impacts of organic enrichment or smothering on sensitive benthic priority marine features). This objective should therefore explicitly include the possibility of relocation when necessary.

Page 32: Impacts on wild populations (disease and escapes) are correctly identified in the list of six main environmental impacts of finfish aquaculture, but these are the only issues which are not further expanded upon. These are key issues for wild salmonids and more information should be included here.

Page 34: There is a potential reference to deep water production here. If this is taken further it should reference the corresponding opportunity to remove small, sensitive inshore sites as part of the same process.

Commercial Fishing

Page 36: Given that the impact of commercial fishing on the seabed is identified as one of the three significant, systematic and widespread pressures on the Scottish Marine Area, it is incomprehensible that reduction of this pressure is neither a key challenge nor a sector objective for commercial fisheries. Like all other species, wild salmonids rely on a healthy, well-functioning marine environment during the marine phase of their life-cycle and some commercial fishing gear has the clear potential to adversely affect large areas of seabed (as explicitly recognised on pages 39 and 50). Page 41 states that *'it may be possible to do this [protect the seabed] by identifying areas which are unfished and controlling fishing activities there to help ensure any damage to the seabed is minimised'*. We would argue that it is entirely possible and indeed strategic protection of the seabed would be an essential step in recovering our marine environment. In many instances there could be a win-win for wider environmental concerns (such as sensitive benthic habitats included on the draft list of priority marine features) and wild salmonid stocks, particularly sea trout.

Wild Salmon and Freshwater Fisheries

There is no reference to the fact that Atlantic salmon is a European protected species. It should also be noted that the Atlantic salmon (marine part of life cycle) has been included by SNH on the draft list of priority marine features - a focused list of marine habitats and species which will be used to help target future conservation work in Scotland.

Page 44: We are extremely disappointed that the reference to Mixed Stock Fisheries has been removed from the Key Challenge Section. The North Atlantic Salmon Conservation Organisation (NASCO) has defined Mixed Stock Fisheries (MSFs) as *'fisheries exploiting a significant number of salmon from two or more river stocks; NASCO has also agreed that management of homewater fisheries should be based on the status of individual river stocks and management of distant water fisheries on the status of the stock complexes defined by managers'*. In addition, ICES has advised that *'the management of all fisheries should be based upon assessments of the status of individual stocks. Fisheries on mixed stocks, particularly in coastal waters or on the high seas, pose particular difficulties for management, as they cannot target only stocks that are at full reproductive capacity if there are stocks below conservation limits¹ within the mixed-stock being fished²*. ASFB accepts the international advice that mixed stock fisheries, as defined by NASCO, are a threat to the effective conservation and management of Atlantic salmon. On this basis, we strongly suggest that, as an absolute minimum, the original text be reinstated:

Limit impact of coastal mixed stock fisheries and encourage reduction in annual catches to help preserve stocks.

Page 44: We welcome the addition of the new key challenge, but recommend that this challenge be expanded to encompass 'marine activities and developments'.

Page 44: We welcome the key research priority - Establish migratory routes and the factors that influence them. This is of particular relevance in the light of the recent SNH commissioned report³ which assessed the potential effects of electromagnetic fields and sub-sea noise on Atlantic salmon, sea trout and European eel which states: *'a clear understanding of how migratory fish species of conservation importance utilise the coastal zone and react to the construction and operational activities of MREDS [Marine Renewable Energy Devices] is a fundamental requirement'*. We also believe that there should be an additional key research priority – to identify sensitive sites for wild fish issues. This work, which will be undertaken by Rivers and Fisheries Trusts of Scotland (RAFTS), has recently been funded by Scottish Government.

Page 44: We welcome the addition of 'Manage interactions with aquaculture' here. This should be expanded to include the possibility of relocating inappropriately located sites from sensitive areas where necessary. This objective should also be explicitly included in the aquaculture section.

Page 48 & 49: Given the major issues with the sustainability of mixed stock fisheries as detailed above (and highlighted by NASCO and ICES) we do not believe it is appropriate to rely on the following statements on mixed stock fisheries (P48 - It is unlikely that there will be new entrants to the coastal salmon netting industry; P49 - The decline in netting catch suggests there is limited prospect of new growth in this sector). The National Marine Plan (and Scottish Government Policy) must be more proactive on this issue,

¹ In Scotland there are some concerns that the conservation limit approach lacks adequate resolution in assessing complex salmon population structures typical of Scotland, but not necessarily typical of stocks in other NASCO jurisdictions. Marine Scotland Science and salmon managers are looking at developing alternative stock assessment tools that may be more appropriate for assessing Scottish stocks.

² http://www.nasco.int/pdf/far_fisheries/Fisheries%20Guidelines%20Brochure.pdf

³ Gill, A.B. & Bartlett, M. (2010). Literature review on the potential effects of electromagnetic fields and subsea noise from marine renewable energy developments on Atlantic salmon, sea trout and European eel. *Scottish Natural Heritage Commissioned Report No.401*

particularly if the long-term objective for the sector is to be met (and given the clear correlation between presence of mixed stock fisheries in Scotland and SACs with Atlantic salmon as qualifying features).

Page 49: As identified in this section, salmon are likely to be negatively impacted by climate change. The National Marine Plan has a vital role to play in building the resilience of species and habitats at risk from climate change impacts, by reducing other human induced pressures (e.g. fisheries, aquaculture, other developments) in order to preserve stocks (see Climate Change Objectives above). The high occurrence of catch and release demonstrates the angling sector's continuing commitment to this underlying principle.

Page 49-50: We welcome the explicit reference to renewable energy developments, aquaculture and commercial fisheries here. However, these issues should be cross-referenced across the different sectors in the plan and the solutions to these problems should be identified. It is vital that the National Marine Plan is directive about how such potential conflicts should be addressed by the planning system. As an example, with regard to aquaculture, we have already highlighted a possible traffic light system for managing wild fisheries and aquaculture which was included in a previous draft of the sector paper, but has now been removed. This system included:

1. Current areas without fish farming which should remain as virgin sites (this should include areas on the West Coast)
2. Sites where fish farming could be relocated from sensitive sites
3. Sites where management of existing production could be improved but where it is recognised that production is embedded
4. Areas where the industry can expand such as bigger offshore sites. This would enable growth of the industry and would facilitate relocation from sensitive sites.

This principle should be included in the plan in either the aquaculture or wild salmon section with clear cross-referencing between the two sections.

Renewables

Page 60: The correct reference should be to *survey*, deploy and monitor.

Page 65-66: This section details the effects of noise with regard to salmon, but does not address the potential effects of electro-magnetic fields (EMFs) resulting from operation and cabling. A recent SNH commissioned report⁴ made the following recommendations for future research to attempt to:

- *Definitively determine whether these species will respond to the likely electric and magnetic field strengths associated with each MRE source and assess the potential significance of any effects for each of the critical life cycle stages identified. This could include studies of how exposure to EMF causes effects (e.g. physiological and biochemical stress resulting from EMF).*
- *Identify how each of the species interacts with the EMFs when free swimming and during the migration phases of their life cycles. This is likely to vary between species according to their habits, and needs to consider different life stages of each fish.*
- *Determine the threshold levels at which the three species detect and respond to the subsea noise during the construction and operation phases, separately using noncaged experiments from a range of different sound sources on the behaviour of each species of fish. This too could include studies of how exposure to noise causes effects (e.g. resulting physiological and biochemical stress; see Slabbekoorn et al., 2010).*
- *Specifically consider the cumulative impacts of adjacent developments, and determine the effects of constructive and destructive interference patterns and interactions between EMFs and noise from cables or marine renewable devices associated with whole developments.*

⁴ Gill, A.B. & Bartlett, M. (2010). Literature review on the potential effects of electromagnetic fields and subsea noise from marine renewable energy developments on Atlantic salmon, sea trout and European eel. *Scottish Natural Heritage Commissioned Report No.401*

In addition, the potential effects of EMFs and sub-sea noise should be considered in the light of the considerable uncertainties regarding behaviour and migratory routes as highlighted in the recent Marine Scotland Science review of the migratory routes and behaviour of Atlantic salmon, sea trout and European Eel⁵.

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⁵ Malcolm, I.A., Godfrey, J. & Youngson, A.F. Review of migratory routes and behaviour of Atlantic salmon, sea trout and European eel in Scotland's coastal environment: implications for the development of marine renewables. Scottish Marine and Freshwater Science Volume 1 No 14.