

Environment, Climate Change and Land Reform Committee

Environmental impacts of salmon farming

Written submission from The Royal Society for the Protection of Birds (RSPB) Scotland

RSPB Scotland welcome the opportunity to provide a written response to the above noted inquiry. We are actively engaged in policy and planning issues that are relevant to the natural marine environment and engage directly with applications for salmon farms. We are particularly focused on those proposals located within or adjacent to the suite of proposed marine Special Protection Areas (pSPAs). Our primary concern is the potential environmental risks posed by the sector, particularly **the in-combination effects of multiple farms on locations of high ecological sensitivity within Scottish waters**. We therefore welcome the focus of the Committee's Inquiry and are hopeful that measures can be taken to address and resolve the environmental challenges posed by this sector.

We have found the review by the Scottish Association for Marine Science to be a comprehensive summary of the published literature. The report does raise significant issues which serve to complement the concerns RSPB Scotland has identified through our involvement in the planning system. A summary of these high level issues is provided below for consideration by the Committee.

Risks to the natural marine environment: The report clearly identifies knowledge gaps and uncertainties related to various potential environmental impacts of this sector and emphasises the need for these to be addressed given the projected growth of the industry towards 2020 and 2030 milestones. Our specific concerns are the risks these impacts pose to '*ecosystem functions, their resilience and the supply of ecosystem services*' which, if not adequately addressed, could result in a deterioration of the natural marine environment. We are surprised, for example, by the almost total lack of evidence on the potential long-term effects of therapeutants on priority species, sensitive habitats or ecosystems. The risk is that such effects could already be undermining the ability of Scotland to achieve the vision of Scotland's National Marine Plan and associated High Level Marine Objectives. Furthermore, it is increasingly important to ensure the current and projected operation of salmon farming is not adversely impacting on Scotland's ability to achieve and maintain Good Environmental Status under the EU Marine Strategy Framework Directive.

Adaptive management: In light of the knowledge gaps and uncertainties (many of which remain since the 2002 review) the approach going forward must be guided by the precautionary principle to enable gaps to be filled and the uncertainties reduced. As described in the report adaptive management could deliver this but to be successful it has to be formally adopted, supported by adequate monitoring and the feedback mechanisms fully integrated and enforced at a national level.

Spatial planning: The report notes that while technological advances in Recirculating Aquaculture Systems (RAS) and Integrated Multi-trophic Aquaculture (IMTA) are in the pipeline and offer potential solutions to many of the impacts

described, it is likely that the principal method for mitigating the environmental effects of salmon waste and nutrients during the next decade lies in spatial planning and management. In our view, the same conclusion could be made of many of the other environmental effects identified in the report.

As it is not specifically referred to, it is worth noting that there is a significant spatial planning policy that directs the location of fish farms based on risk to natural heritage. Scottish Planning Policy states that the planning system should “maintain a presumption against further marine finfish farm developments on the north and east coasts to safeguard migratory fish species.”¹ Though a planning presumption rather than an outright prohibition, in practice the policy effectively restricts the siting of new marine fish farms to a zone covering the west coast, Inner & Outer Hebrides and the Northern Isles. This however raises a critical question as to why migratory salmonids in these areas do not receive equivalent protection at the national policy level from the risk posed by salmon farms.

Although national level Locational Guidelines are in place to further guide development within the ‘fish farming zone’ these are narrow in scope, applying solely to nutrient enhancement and benthic impact based on Marine Scotland Science predictive modelling. Scotland’s National Marine Plan refers to a Marine Scotland Science project, which at the time of publication was reported to be in its final year which aims to “identify areas of opportunity and constraint for both finfish and shellfish sectors.”² It is understood that this would see a considerable widening in scope from the existing Locational Guidelines to include other environmental sensitivities, capacity and competing uses of marine space. This would be a significant advancement toward guiding development toward appropriate locations based on a range of environmental criteria, however it is not clear what plans there are from Marine Scotland to make this potentially important spatial planning tool available.

¹ Scottish Planning Policy, Para 250 <http://www.gov.scot/Resource/0045/00453827.pdf>

² Scotland’s National Marine Plan, Para 7.17 <http://www.gov.scot/Resource/0047/00475466.pdf>