Association of Salmon Fishery Boards

RAFTS

Comments on 'Improving the water environment without a significant adverse impact on renewable energy generation' February 2012

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), which 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 creates 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 freshwater 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, most of which are in rural areas.

Formed in 2005, Rivers and Fisheries Trusts of Scotland (RAFTS) is an independent freshwater conservation charity representing Scotland's national network of 24 rivers and fisheries Trusts and Foundations. Our members work across over 90% of Scotland's freshwaters to protect and develop our native fish stocks and populations by undertaking a range of activities including freshwater, river habitat restoration, fish and fisheries monitoring, research and education programmes. RAFTS is the membership organisation of the fisheries and rivers trusts operating in Scotland and is, itself, a charity and company limited by guarantee.

We welcome the opportunity to comment on this consultation. In particular, we welcome the recognition that it is unlikely that all the objectives identified in the river basin management plans can be achieved without a reduction in electricity generation and that, where appropriate, SEPA will make the changes to license conditions necessary to secure the improvements needed to achieve the plans' improvement objectives.

Specific comments

Principles of approach

Question 1

SEPA has proposed a number of matters that would be considered when determining if a reduction in generation would be significant. Do you agree that these are appropriate matters to be considered in that context?

In order to provide a fully informed response we would need more information on exactly how points (a) to (c) will be defined, and we would hope to be further consulted on this as it progresses. We are concerned that, if these points were considered in the order presented in the consultation document, that consideration of the impact of reduction in power generation would be the primary and overriding factor in the license review process. In our view, the first consideration should be the environmental benefits arising from the improvement to the water environment, and the impacts on power generation should be secondary considerations. In this way the benefits available can be identified and then balanced with the predicted reduction in power generation necessary to achieve these benefits.

The timescale for achieving an objective for an individual water body, and any associated revision of the ambition for that objective must be in line with Article 4 of the Water Framework Directive. Any such revision must be clearly demonstrated to be of overriding public interest or a benefit to sustainable development, that all possible steps are taken to mitigate adverse impacts and that the benefit cannot be achieved by a significantly better environmental option. The application of such derogated objectives for any waterbody, we understand, must also be advertised so as to allow public scrutiny and representations to be made to support the regulatory decision making process. Loss of power generation should not therefore be assessed solely in terms of hydro generation. Scotland's renewable energy generation targets will be met by a broad mix of methods of generation including wind (onshore and offshore), wave and tidal. The predicted increases in generation from these technologies are hugely significant and this expansion is likely to outweigh any modest reduction in hydro capacity.

Finally, we would question whether point a, should be limited to an individual scheme. We believe that it may be more appropriate to expand this determination to impact on electricity generation at a company-wide level.

Approach in practice

General Comments: We agree that it is important that Scotland plays its part in helping to tackle climate change by controlling greenhouse gas emissions. However, with further climate change inevitable in the short to medium term, attention must also focus on the development of accommodation and adaptation strategies, through which adverse effects on species or ecosystems can be minimized. Therefore, we also need to focus on the needs of species that are sensitive to the effects of climate change (such as Atlantic salmon and sea trout). Crucially, we need to avoid, or at least minimise the potential adverse effects of actions or activities taken to mitigate climate change (Ormerod 2009 – *Aquatic Conserv: Mar. Freshw. Ecosyst.* 19: 609–613).

Question 2

SEPA has proposed that the maximum total cumulative loss of generation to deliver the benefits across the three RBMP cycles up to 2027 should be no greater than approximately 2% of the baseline figure. Do you agree that this is a proportionate impact on generation to achieve the identified measures?

The figure of 2% appears to be arbitrary, and there is no justification for this figure in the consultation document. Whilst we recognise that the identification of an acceptable % loss in production would be beneficial in providing a context for all parties to plan and work within we are concerned that the use of a pre-determined figure, which currently does not appear to be have a justification to support its selection, may limit the ability of meeting environmental objectives (please see our comments relating to the overall energy mix above). The Tay DSFB has completed an assessment of the total amount of water required across Scotland in order to meet GEP (Q95 flow) in streams that SEPA have identified as not meeting GEP due to low water flows resulting from Hydro developments. We would make the following observations on the basis of that analysis:

- The amount of water required for a Q95 flow in all streams that SEPA have identified as not meeting GEP would require an associated loss in generation of 223.97 GWh (4.47% of generation)
- However, many of the streams in question are not accessible to migratory salmonids. The next step in this process therefore would be for the wild fisheries sector and SEPA to develop a mechanism for the prioritisation of these streams.
- A Q95 flow is likely to be insufficient for migratory salmonids to access additional spawning habitat, so it must be recognised that additional flows (including freshets) are likely to be required to have significant benefits for migratory fish.

Question 3
SEPA has proposed the use of a single baseline figure to determine the maximum reduction in the amount of hydroelectric generation at the beginning of the RBMP cycles rather than apply a different baseline for each cycle based on a common methodology. Do you agree with this approach?

The methodology underlying this question is not clear, and we would seek additional information here.

Question 4
SEPA has proposed a methodology for calculating the baseline figure that is based upon the amount of hydroelectricity capable of being generated by Scotland's existing hydroelectricity schemes. Do you agree with this methodology?

The methodology underlying this question is not clear, and we would seek additional information as to how such baseline figures would be determined.

Question 5
SEPA has not proposed any means of assigning any necessary cumulative loss of generation to individual operators within and across cycles. Do you consider that SEPA should do so? If you do please provide your views on how you would wish SEPA to do so.

As we stated earlier, the primary concern should be on achieving environmental objectives. However, as we stated in our answer to Question 1, we believe that it may be more appropriate to assess loss of generation at a company-wide level rather than assessing generation loss according to individual schemes. This would allow greater flows in some areas where necessary to meet environmental objectives, without having an adverse impact on generation at a company-wide level.

Question 6
The relative importance of the environmental benefits that may be delivered by additional mitigation is an important consideration in measuring the significance of any loss of generation; do you have a view on how SEPA should measure this? If so please provide details.

From a wild fisheries perspective, environmental benefit should be measured in terms of the overall amount of additional habitat that will be restored and allow access for key freshwater and migratory species of fish. It is also important that the economic and social benefits (such as fisheries benefits relating to potential increases in catches) are considered.

Appendix B: Information for assessing significance at a scheme-level

Question 7
SEPA has proposed indicators for use in assessing the significance of any loss of generation at a scheme level arising from additional mitigation flows required to deliver improvements to the water environment. Are there any other indicators or any alterations to the proposed indicators that you would wish SEPA to consider? If so please provide details.

Please see our comments above in relation to assessing significance at a company level.

Question 8
SEPA has proposed to use annual average electricity output as the baseline for a comparison of proposed changes as using one year's data would not be representative of yearly fluctuation. How do you think SEPA should set annual average output? Should it be a rolling average over a set number of years or fixed based on a set number of previous years?

We believe that a fixed average based on a set number of years is the most appropriate means of setting a baseline. We understand that data from a number of gauging stations across Scotland suggests that there may have been an increase in rainfall over recent years. When considering the period over which the average should apply it would therefore be appropriate to check for a long-term trend in

rainfall. If this, or other factors, have resulted in an increase in generation, it would be more appropriate to use only recent years when considering the period over which the average should apply.

General comments

Question 9

Please let us know if you have any further points related to the consultation. If your point relates to a part of the document please cross reference the section. Please provide any additional information to support your point.

As the analysis performed by the Tay DSFB has shown, unless SEPA is willing to accept a much larger reduction in generation, there will be a need for prioritisation with regard to which schemes are likely to provide the greatest environmental benefits. In making such an assessment, all issues relating to interactions between hydro schemes and migratory fish should be considered. In some instances, abstraction may not be the most important issue – other issues such as sub-optimal fish passage or impacts on sediment transport may be more important. Mitigation to improve fish passage at particular problem locations (e.g. Loch Shin, Glen Beag, Clunie Dam, Tongland Dam etc.) might have a larger environmental benefit.

We are also concerned at the indicative maximum reduction in cumulative annual electricity output per RBMP period as set out in the consultation document. We believe that the amount of reduction proposed for the first and second cycles is too low and that a more appropriate breakdown would be 25%, 50% and 100% respectively. As the consultation document states, renewable generation already accounts for 28% of all generation and is predicted to be 100% by 2020.

For further information please contact:

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