

Managing interactions between sea lice from finfish farms and wild salmonids - Proposed new regulatory framework

I'm writing to respond to the latest consultation on the above proposals. I responded to the initial consultation last year and in common with many others who responded to that consultation I'm frustrated at how little change has been made to the proposals in light of the content of the responses. On the face of it, the latest proposals are almost identical to those set out last year with a few minor tweaks such as the additional month for the "protection" for sea trout – a derisory change for these animals which I'll touch more on later.

Consultations by Public Bodies are often characterised by tokenism and a failure to play the slightest heed to responses and your approach fails to break this mould. It does little other than to discourage anything other than zealots and campaigners from engaging as any average person becomes utterly disillusioned and demoralised by the process. I'll therefore keep my response brief as to expend much effort on it would be a waste of my time and yours.

The document is confidently written but an analysis by anyone with a basic knowledge of salmonids and the marine environment would know that it is a house of cards, displaying figurative sleight of hand of which a fairground huckster would be proud. The reason for this harsh criticism is the same as why I was critical of the original proposals namely, that they purport to be risk based, SEPA able to "target....regulatory effort where the risk of environmental harm is the greatest" [p17] and ensure that "the benefit of doubt is given to the environment" [p21]. But that is not what the result of a framework based upon the proposals would do at all.

There are lots of reasons why this is the case, but two main areas that I'll touch on here – I set these out in my previous response but I'll go through the charade of repeating them just to ensure that my disquiet is recorded. The first main failing of the proposals, and one which undermines the entire basis of the framework, is the lack of inclusion of the effects of wind on sea louse larval dispersal. I understand, from what I have been told by some participants in Workshops held by SEPA, that this was because to include wind effect in modelling work was too expensive.

It is clear to anyone with a bit of experience in these matters that because louse larvae are planktonic and spend much of their time at, or close to, the sea surface that when a moderate or strong wind is blowing, it will have a significant effect on their distribution. Probably at times, more effect than tidal flows. That such an effect is increased with increasing wind speed and that increasing wind speed might often be accompanied by heavy rain, which would be expected to cause an increased rate of smolt migration, it would seem to be a perfect storm of impact on smolts which the proposals do nothing to account for.

If it was too expensive to model all wind situations, it would surely have been possible to look at a few types of circumstance where, for example, the wind led to a concentration of louse larvae towards the head of a sea loch or towards some narrowing of the supposed route taken by smolts, to get an idea of what some fairly feasible worst case scenarios might look like – that would be a step that meant the proposals could be slightly better classed as "risk based" and "giving the environment the benefit of the doubt". As drafted they are neither. There are other issues with modelling that I'll touch on later.

The other main failing is sea trout. While they have been the subject of less published research than salmon, it is well known that the risk posed to sea trout from sea louse larvae is greater for sea trout than salmon. Your paper acknowledges this fact. The main reasons for this are that fact that the preferred host of the salmon louse is actually sea trout (as I mentioned in my previous response) and because the length of the exposure period for sea trout is greater – in many cases for their whole

(presumably short and painful) lifetime. The risks to sea trout are therefore considerably higher than to salmon, yet they are for most intents and purposes dismissed in terms of real protection. The proposals therefore cannot claim to be “risk based” if the subject of the highest risk of harm is largely ignored.

If I understand the consultation, it is feasible that fish farmers will be asked to undertake modelling to get fish farms in areas which SEPA has identified as higher risk and that this modelling might include the effect of wind. But if the worst effects of wind (on sea louse dispersal and risk to smolts) is not considered by SEPA in deciding which areas are higher risk then this whole arrangement is a pointless charade as in many sea lochs which might be high risk if wind effects were considered no such modelling will be undertaken.

The whole timing of the imposition of protection of either species seems very unclear from the proposals. If I understand it, nothing is being done to control the effect of sea lice from existing sites on salmon smolts and it might be as late as 2027 before any action is actually taken and that is for salmon – sounds like the issue is being kicked into the long grass. As for sea trout, one imagines their protection has been booted into the dense woodland somewhere beyond the scrubbiest longest grass.

In the meantime, in some of the areas where sea trout are an important species, expansion of the fish farms and an unsurprising increase in need to undertake sea louse treatments has been significant. The possibility that SEPA will require extra modelling etc in higher risk areas and the (remote?) possibility that farms in these areas will (someday?) be subject to stricter regulation will simply (and perversely) drive expansion into the areas not subject to risk classification (so therefore where the risks to sea trout/salmon are ignored or unknown) but which are also areas for sea trout (the species most at risk from sea lice). This will represent a “gold rush” of development, for example in the Northern Isles and is another perfect storm belying the notion that the proposals are risk based and putting the environment first.

Another issue with the modelling used by SEPA to focus on certain areas is validation of calibration? As well as the absence of a consideration of the worst case effects of wind, the entire model that SEPA is using to determine the risk category (in those waterbodies “lucky enough” to be assessed) seems to be unvalidated. Validation seems to be awaiting real life monitoring in some of the higher risk waters....but this monitoring seems to include work by industry “partners”. Can it be right that a modelling approach which might be controversial to the fish farm companies and which might (eventually) cause them difficulties or at least extra work, is being validated by monitoring done by those companies? In the meantime, the fate of sea trout and some salmon populations (the lower risk ones) is sealed by a model that is at best theoretical as it has undergone no field validation.

Surely, if the intention, as stated in the consultation, is to have a risk based system that gives the benefit of the doubt to the environment, then it would be more appropriate to assume that all sea lochs and other waterbodies where fish farm and salmonids coincide are higher risk environments until a properly validated model shows that they are not?

Concluding that everything is hunky-dory on vast swathes of Scotland’s coast based on the outputs of an unvalidated model that fails to consider wind effects is not giving the benefit of the doubt to the environment but is once again SEPA giving *carte blanche* to their chums in the fish farming companies.

I could go on but no longer have the energy, no doubt these proposals will go through as set out, to loud cheers in the boardrooms of Scottish salmon businesses Norwegian owners. There will be no recovery in salmon and the remaining populations of sea trout will be doomed to their fate but SEPA will sit back and blame climate change, or drought in the rivers, or seals or netting at sea etc etc and emerge with a shiny Teflon coated conscience.

