Fisheries Management Scotland (FMS) welcomes the opportunity to comment on the consultation on regulation of marine cage fish farms. FMS and previously the Association of Salmon Fishery Boards (ASFB) and Rivers and Fisheries Trusts of Scotland (RAFTS) have for many years advocated changes to the way that salmon farming is regulated, in order to mitigate impacts on wild migratory salmonids. We are committed to working with the Scottish Government, SEPA and the aquaculture industry to achieve meaningful changes in order to facilitate a harmonious local coexistence between the farmed and wild fish sectors, resulting in thriving salmon and sea trout populations and fisheries without negative impacts arising from salmon farming.

We welcome many of the sentiments expressed in the introduction to the consultation, such as “we must strengthen environmental controls so that the risks to Scotland’s environment from existing fish farms and future new farms is minimised”, and that “compliance with environmental standards is the minimum expected of those we regulate in every sector”.

It is our view that the current system of planning and regulation of the fish farming industry is not fit for purpose, particularly in dealing with the widely understood impacts on wild migratory fish. Our concerns relate to the manner in which interactions issues are dealt with through the planning process, the powers contained within the Aquaculture and Fisheries (Scotland) Act 2007 and specifically the fact that powers of the Fish Health Inspectorate are limited to the welfare of farmed fish. Of particular relevance to the current consultation, we are concerned that SEPA do not consider that their remit covers the release of sea lice nauplii from salmon farms into the marine environment and the potential subsequent impacts on wild fish. Salmon aquaculture can result in elevated numbers of sea lice in open water and is likely to increase the infestation potential on wild salmonids. This is a significant gap in Scotland’s regulatory system as the impact of any increase of sea lice in the environment, resulting from consented increases in biomass, is not considered as part of the current regulatory system.

The Industry Code of Good Practice, and the Scottish Government’s recent changes to the interpretation of the Aquaculture and Fisheries (Scotland) Act 2007, with regard to the prevention, control and reduction of parasites, only require management of sea lice according to the average number of lice per fish, and do not account for the overall number of fish within an area. At a very basic level, increasing the biomass on site increases the number of potential hosts for sea lice to infest. Marine Scotland Science have demonstrated that salmon farms are a more important contributor than wild fish to the total numbers of salmon lice in the environment¹ and make clear in their submissions to the planning process that adherence to the suggested criteria for treatment of sea lice stipulated in the industry CoGP may not necessarily prevent release of substantial numbers of lice from aquaculture installations.

We note the obligation of SEPA, under the Nature Conservation (Scotland) Act 2004, “in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions”. We do not consider that SEPA should exercise its regulatory functions with regard to fish farming without considering the potential impacts on wild migratory salmonids of any such regulatory decision. It is therefore disappointing that the impacts arising from farm-derived sea lice (and potentially disease) have not been considered in the consultation document.

¹ http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/Aqint/troutandlice
Whilst we can see some potential benefits in the proposals that SEPA have developed, we do not believe that these should be taken forward in isolation. The current regulatory system is complicated and fragmented and does not meet the needs of our iconic wild salmon and sea trout populations. Any changes to SEPA’s regulation should be undertaken in parallel with a wider review of the regulation of the industry. We note that the Rural Economy and Connectivity Committee will undertake an enquiry in spring 2018 and at the very least, the proposals should not be taken forward until that process is completed.

**Question 1 – Do you support the principle of trying to make it easier and more attractive for fish farm businesses to develop in exposed, deep waters with strong tides?**

We emphasise that there is a lack of information as to the use of the marine environment by wild migratory salmonid fish. This has been a significant problem in considering a range of marine developments, including fish farming and marine renewable developments. Whilst we can see the benefit of moving fish farm production to more exposed sites in order to reduce benthic impacts, it is important that a holistic assessment of the benefits of much a move is carried out across the range of potential impacts. We are aware that Marine Scotland Science are in the process of finalising a ‘heat map’ of sensitivity zones for marine fish farming, but any such model can only be as good as the underlying information. Until such time as we have better information on the use of the marine environment by Atlantic salmon and sea trout, it is impossible for us to judge the potential impact of production in more exposed waters on migratory fish.

In addition, unless a move to increase production in exposed, deep waters (subject to the concerns above) is accompanied with a move away from production in more sensitive parts of the marine environment, we believe that the proposals have the potential to increase the likelihood of negative interactions between farmed and wild fish. We note that SEPA do not currently propose to require existing sites to be regulated under DZR.

**Question 2 – What are your views on our proposal to remove the current cap of 2,500 tonnes on the maximum fish biomass that a farm can stock?**

The number of sea lice nauplii released into the environment is a function of the number of gravid female lice per fish, and the overall number of fish on site. We consider that the ability of the fish farming industry to keep sea lice under control is closely related to the maximum biomass allowed on the site. We do not support an increase in the current cap on biomass, where the only accompanying monitoring is in relation to benthic impacts. We do not consider that regulation of benthic impacts in isolation is consistent with the biodiversity duty.

Should SEPA decide to take forward the remaining consultation proposals, the maximum initial biomass should not exceed 2500 tonnes.

However, should the wider regulatory regime be reformed to incorporate monitoring of the release of sea lice from the farm and/or impacts on wild fish and taking into account the overall biomass within a management area, rather than just the number of lice per fish, we would be willing to reconsider this view.

**Question 3 – Do you support our proposal to allow fish biomass to increase by up to 10% per production cycle, provided compliance with the proposed seabed standards is not threatened?**

Please see our response to Q2. Without appropriate safeguards, and monitoring, as to the protection of wild migratory salmonid fish, we do not support such as increase. We do not consider that regulation of benthic impacts in isolation is consistent with the biodiversity duty.
Question 4 – What are your thoughts on our proposal that, for DZR sites, we will take on responsibility for monitoring the effects of the farms on the seabed?
We support this proposal and note that this would be a chargeable component of environmental regulation.

Question 5 – What are your views on our proposal that there should be a break in production if seabed standards are breached to allow the seabed to recover?
We support this proposal. We believe that not allowing further stocking until sea bed conditions come back into compliance with standards and the site is capable of accommodating further waste is a useful precedent, and one that should be replicated for other potential environmental impacts.

Question 6 – What are your views on our proposal that, under DZR, the maximum area of seabed that can be affected by the deposition of farm wastes would be standardised to 0.5 km²?
No specific comments.

Question 7 – Are there any other comments or suggestions you would like to make about the proposals?
Please see our introductory comments. We are disappointed that no consideration has been presented as to how the proposed changes would integrate with the wider regulatory regime. We reiterate our view that any changes to SEPA regulation should be undertaken in parallel with a wider review of the regulation of the industry. In particular, we are of the view that substantial increases in fish farm production via DZR should not be taken forward without appropriate consideration of the impacts on wild migratory salmonids.

We have made several references above to the linkage between biomass and sea lice. We consider that it is important that information on both biomass and actual fish numbers on site are published, in as close to real time as possible, on the Scotland’s Aquaculture website.

We are unclear what is intended under the section entitled ‘other changes to licences’ and would welcome further discussion on what exactly is proposed here.

Finally, as stated earlier we are committed to working with the Scottish Government, SEPA and the aquaculture industry to achieve meaningful changes to the current regulatory regime. We would welcome regular discussion with SEPA as proposals for the regulation of marine cage fish farms progress.

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