



Community of Arran Seabed Trust (COAST)
The Old Haybarn
Park Terrace
Lamlash
Isle of Arran
KA27 8NB
Tel: 01770 600656
Mob: 07818 601226

28 September 2017

Anne Anderson
DZR consultation
Scottish Environment Protection Agency
Strathallan House
The Castle Business Park
Stirling
FK9 4TZ
dzt@sepa.org.uk

Dear Anne

Re: Depositional Zone Regulation: A new regulatory method for marine cage fish farms

COAST welcome this consultation upon the proposed approach, which we trust to be a clear acknowledgement by SEPA of the seriousness of the environmental and health risks and impacts resulting from open cage fish farming.

COAST have been pivotal in establishing the first No Take Zone in Scotland in 2008 and the establishment of the South Arran Marine Protected Area in 2016 and we stand for the socio-economic benefits that productive, abundant and beautiful seas and coastlines bring to everyone. In our opinion there is no place for open cage fish farming in an MPA and that for all fish farms to move to close containment and be based on land is the clear way that our marine environment can be protected from further pollution and infection.

Please find attached our reactions, comments and suggestions to the questions that you ask in the consultation document.

Yours sincerely

Paul Chandler

**Director
Community of Arran Seabed Trust (COAST)**

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?

No, COAST does not support this proposal as it stands.

- a. The mass escapes that have been recorded from inshore areas will be more likely from larger farms in more exposed areas due to the higher risk of storm damage to the cages. Escapes result in the increased potential for the spread of disease and sea lice infection plus the increased risk of interbreeding with wild fish, reducing the strength of the gene pool of native salmonids.
- b. In our opinion this proposed principle is an acknowledgement that siting fish farms in inshore waters has not worked and is simply kicking a can down the road rather than addressing the source of the problem, which is open cage fish farming. There is overwhelming published evidence that concentrations of farmed salmon in open pens create infection, disease and pollution. The industry's efforts to mitigate this has led them to use measures ranging from topical and feed-based pesticides and antibiotics, heat and laser treatments, to using wild captured and farmed wrasse as cleaner fish. It is the fundamental problem that salmon in closed captivity produce many harmful environmental impacts which are not being dealt with. Pushing the problem further offshore may mean it is out of sight but does not mean it has gone away.

Despite being located in deeper waters with stronger currents, offshore fish farms will still have an environmental impact e.g. some chemical treatments used in fish farming have been found to be detrimental to marine organisms (in particular crustaceans) at very low concentrations (*SARF098:PAMP Refreshment Study – final report A statistical analysis of sea-lice medicine use and benthic monitoring at Scottish marine salmon farms; 2002 – 2014*). Offshore farms will only contribute further to the cumulative environmental impacts of the industry, which we have failed to monitor and document adequately to date. Closed containment as a transitional stop-gap toward closed containment on land are the only long term viable options that we must progress and we need a carrot and stick approach from Government to move the industry in that direction.

- c. The consultation document and annex do not propose or indicate how moving the farms further offshore will assist the protection of our polluted inshore areas as there is no proposal to taper down the inshore farms as more are developed offshore.

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?

We object to this proposal.

- a. Scotland's upper limit of 2500 tonnes is excessive, given that the maximum biomass allowed in Norway is 1000 tonnes (less in many areas) and that existing fish farms of this size are already doing substantial cumulative harm to their surroundings, especially where they are clustered, as so many are on the west coast of Scotland. Analysis of data from www.aquaculture.scotland.gov.uk combined with visual observations show that the emissions from salmon aquaculture are seriously affecting many inshore areas with thick dense white, toxic, sulphurous, beggiatoa bacterial mats developed on the seabed. Increasing the biomass would cause more damage as the effect becomes increasingly cumulative. The so called 'fallow' periods between salmon production cycles do not allow for any recovery of the affected seabed and thus the growth of these mats produce an environment which is inimical to all other life except for nematode worms.
- b. We want a decrease in the use of pesticides and no further increases which will undoubtedly result from increases in maximum biomass. SEPA's aquaculture specialist wrote this about the impact of one such pesticide, emamectin benzoate (SLICE), as revealed by PAMP2 (SARF098) (Fol: Q1 4-2, 132, released by SEPA June 2017): *'The observed effects suggest that the impact is cumulative and recovery does not occur between applications... ultimately it is concluded that benthic crustacea are not adequately protected by the current regulatory approach'*

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?

In line with our comments above we do not support this proposal:

- a. The proposal indicates that existing inshore farms can also apply to move under a DRZ license and therefore expand by 10% beyond 2500 tonnes after every salmon farming cycle i.e. every c.2 years. COAST sees this as a mechanism by which our inshore areas and our seas in general are further damaged and our health is exposed to greater risks. We do not have confidence that water quality and seabed effects will be adequately measured and monitored by SEPA and in addition SEPA lack accurate baseline data on the past and current

cumulative effects of the waste products. There is no data-based, precautionary-principle being applied here with regard to the protection of plant, animal and ultimately human health.

- b. We do not have any confidence in the justification for, or monitoring of, the 'proposed seabed standards'. COAST do not see evidence of enough published independently gathered hydrographic and empirical chemical data from the seabed and water column. There is too much reliance on modelling (DEPOMOD/newDEPOMOD/autoDEPOMOD) for planning and decision making by SEPA. Just how far waste would be transported by the tidal flow is borne out by a trial run of SEPA's newDEPOMOD computer model, used to model waste dispersal from the proposed Dounie fish farm site. We understand that this modelling would be the basis of the proposed DZR approach. The results suggest that 82% of all the modelled waste particles would be carried at least as far as the edge of the model's 2x2 km sq grid, centred on the fish farm, i.e. at least 1km from the pens. Having left the grid, this waste is classed as going to 'fates unknown'. Unrealistically, none of it is readmitted to the modelled area when the tide changes while in the real world waste products and treatments can get worked back and forth over the same areas with widespread and cumulative effects. .

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?

SEPA should do this for all sites and charge the salmon farm companies for this. We can see many examples of 'Unsatisfactory' results from the self-reporting by salmon companies to date (<http://aquaculture.scotland.gov.uk/>) and yet we have no idea how, 'Satisfactory' and 'Unsatisfactory' are determined. This process is tantamount to me sticking my finger in the exhaust pipe of my parked car, holding it in the air and saying this car has satisfactorily passed its MOT. Is that acceptable and in the public interest?

Where farms breach EQS, SEPA must have the resources to immediately identify the offending farm, take immediate action, and if necessary, withdraw CAR licenses and heavily fine those offending companies.

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 agree that the seabed should be allowed to recover but the crucial question is why did it get damaged in the first place? The answer is of course because open cages are being used. The current use of a 6-8 week so-called 'fallow' period is unacceptable because it does not allow for seabed recovery where, in all cases, the seabed around the cages will have become a sulphurous toxic bacterial mat. It will take many years for these areas of seabed to recover. The only answer to mitigate further damage is to demand closed containment pens and transition the farming to closed-containment on land.

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?

The self-proclaimed role of SEPA states '*The Scottish Environment Protection Agency (SEPA) is Scotland's principal environmental regulator, protecting and improving Scotland's environment*'; therefore the only justifiable threshold that SEPA should be proposing for the effect of fish farming is **zero** harm to the marine environment. In the public interest, and with a clear duty of care, SEPA must stand for the protection of our seas and our people and ensure the Government moves the industry to closed containment on land.

Question 7 – Are there any other comments or suggestions you would like to make about the proposals?

Over the past decade and beyond, many communities in Scotland, British Columbia, Norway and Chile, have demanded Governmental scientific and video evidence from the damaging anoxic masses below fish farms. They have called for a reduction in biomass on salmon farms and the prohibited use of neurotoxins and antibiotics. Island communities such as Arran have for decades been denied an automatic and early voice in decisions regarding fishing and aquaculture in their surrounding waters. There is a palpable sense of social injustice from many island and coastal communities and a clear narrative present, which is 'that we have to fight for our rights'. Therefore, when an island community's voice is heard it is generally, very loud and adversarial because our communities are not given mandatory involvement and mandatory power.

In Scotland now, as there once was against Rachel Carson (the DDT campaigner), the fish feed producers, chemical companies and salmon farmers have a large well-funded governmental lobby to fend off campaign groups and local community opinion. We want to hear and see SEPA speak out for the environment, our health and our communities while the Scottish Government speaks only about growing the economy without serious regard for the environment and the voices of the local island communities. The precautionary principle has one of its main themes, "involve public participants in decision-making". This has been missing in decision making about new salmon farms and increased biomass approvals. We need SEPA to stand for the protection and recovery of the environment and not be bowed by the interests of big business.