INTRODUCTION

The Community of Arran Seabed Trust (COAST.) is based in Lamlash Bay, on the Isle of Arran, North Ayrshire. We are a 23 year old, community-led charity with the aim of restoring an abundant and productive marine environment around the Isle of Arran, and the wider Clyde region, for the socio-economic benefit of all. COAST have been successful in establishing the first marine No Take Zone (NTZ) in Scotland (which is the first community-led NTZ in the UK) and achieving the statutory designation of the South Arran Marine Protected Area (MPA).

We are also members of the Coastal Communities Network and the Salmon Aquaculture Reform Network. This issue of environmental impacts is of crucial importance to our community as we have a salmon farm in the South Arran MPA, which the Scottish Salmon Company have stated that they wish to double in size in the near future.

The environmental impacts from salmon farms are harming Scotland’s reputation for quality, the health of our seas and reducing industry profits. It is sensible and responsible that these problems are solved before contemplating any expansion, let alone fast-tracking to double production by 2030.

We have included our views on the Committee’s questions below:

1. Do you have any general views on the current state of the farmed salmon industry in Scotland?

Our concerns about the lack of data, the unsustainability of the industry and the lack of any application of the precautionary principle have been expressed in our response to the ECCLR Committee and amplified *ad nauseum* in the report from the ECCLRC to the RECC. It appears that whatever environmental and industry experts, academics, the ECCLRC, and coastal communities say about being cautious regarding the known and unknown environmental and health impacts, that the government still do not appear to be listening.

COAST’s view is that the industry in cahoots with government are set on the course to double salmon production whatever the cost https://www.fishupdate.com/minister-champions-salmon-sectors-growth/. We call for an immediate moratorium on expansion, with lowering of stocking densities, and adequate industry investment and Government incentives to transition to land-based, closed containment/RAS facilities.
COAST are also clear that open cage salmon aquaculture does not belong in marine protected areas and we agree with 'Prof. Callum Roberts, University of York and Academic Consultant for Blue Planet II in this regard:

‘The multiple environmental problems associated with open-cage salmon farming have been thoroughly established by scientific research. Individually, many impacts represent a serious risk to the conservation objectives of marine protected areas. Collectively, they guarantee an unacceptable level of impact. Open cage salmon farms are incompatible with the conservation objectives of protected areas and should not be sited within them.’ [http://www.arrancoast.com/coast-newsletter-february-2018](http://www.arrancoast.com/coast-newsletter-february-2018)

Protected areas are established to directly influence regeneration of our marine ecosystems; they are also living laboratories so that changes in abundance and biodiversity are measured through time where the spatial management of damaging fishing techniques allows regeneration and resilience to be quantified. The presence of an open cage salmon farm and increase of untreated salmon sewage in a protected area may mean that the quantitative baseline research and monitoring of ecosystem regeneration are potentially skewed and the results of the science may no longer accurately measure the positive effect of the spatial management of damaging fishing methods.

In our view local authority development officers are too close to the industry, planning officers lack knowledge and cannot be relied upon to make objective planning decisions. We have a verifiable example of a local authority marine development manager leaving a local authority and directly joining an open cage salmon farm company. The day before publicly announcing they were leaving and joining the company, to help site new salmon farms, the local authority representative had submitted a response to the ECCLRC consultation on salmon farming, which was clearly on behalf of the local authority. In our opinion this is a clear conflict of interest and symptomatic of the potential for collusion on salmon farm planning decisions, which should be transparent and made in the public interest. The local authority agreed to keep the response in their name and unchanged after being queried by the Clerk to the ECCLRC.

**2. There have been several recent reports which suggest how the farmed salmon industry might be developed. Do you have any views on action that might be taken to help the sector grow in the future?**

For the sector to grow it needs to be truly sustainable rather than a vehicle for companies to make short term profits while leaving our environment and coastal economies with long term damage. COAST want profit-making, non-tax paying, offshore companies with loss-making Scottish subsidiaries to stop avoiding paying taxes and reinvest money in developing and establishing land-based closed containment/RAS
facilities into which they can migrate and transition their marine open-cage based operations.

Further investment in this technological transition can be made through levies on the industry, innovation investment from the Scottish Government and regulation from SEPA to encourage the accelerated development of the technologies to transition from marine-based open cages to closed containment/RAS systems. This combined with a moratorium on open cage expansion will protect the ecosystem and wild salmonid populations from further damage and allow coastal economies and land-based aquaculture to grow sustainably.

3. The farmed salmon industry is currently managing a range of fish health and environmental challenges. Do you have any views on how these might be addressed?
Some views which address this have already been expressed in Section 2 above.

The lack of independent data on sites or the cumulative effects of multiple sites means that the local authorities have no information available to them when they approve planning applications. In addition the fact that the SEPA CAR license application runs in parallel but is disconnected from the planning process means that data gaps and cumulative environmental risks are not examined and the precautionary principle is not applied.

Our understanding is that SEPA themselves would like to see a joined-up planning and CAR licensing process for salmon farms to ensure that the environment is protected from damaging developments. The computer modelling (NewAutodepomod and hydrodynamic modeling) of seabed impacts, which are undertaken using hindcast and forecast modelling need to be peer reviewed and independently verified using real independent sample and current data. If it is proven that these systems can be used along with adequate sample data to monitor salmon farm effluent accurately then there are at least two things which need to be done:

1. All existing salmon farm licenses awarded using previous models need to have their maximum biomass frozen and to be reviewed using the new systems with real independent data. The farms should not undergo any restocking until it is clear what SEPA deem are safe verified operating parameters for that farm. Where unannounced sampling visits by SEPA show that those farms breach the standards they must halve their biomass within a few days or be closed immediately and have their license revoked.
2. SEPA work with local planning authorities to inform them through their new ‘accurate’ modelling and measuring so that the local authorities and public can see the potential for cumulative impacts when taking their planning decisions.

4. Do you feel that the current national collection of data on salmon operations and fish health and related matters is adequate?

The data collection is completely inadequate. The SAMS report to the ECCLRC and the ECCLRC report to the RECC made it crystal clear that data is inadequate and inaccurate; for example citing the small number of unannounced visits by SEPA to fish farms and the fact that most data collected is via self-monitoring by the farms themselves. We want to see the salmon farm companies paying for SEPA to undertake recognisably adequate hydrodynamic, water quality and seabed data collection before any new licenses are awarded and for the companies to pay SEPA for the full cost of ongoing monitoring.

The WRC Review of Environmental Quality Standards for Emamectin Benzoate (EMB) 2017, commissioned by SEPA, draws attention to the extent of the use on Scottish fish farms of EMB. The total loading of the neurotoxin EMB to the marine environment increased six-fold between 2002 and 2015 with salmon production doubling over the same period. Independent monitoring was completely inadequate during this period. This increase in widespread use, due to increase in sea-lice resistance, is disturbing as it is now understood that EMB affects the other arthropods, including prawns, lobsters and crabs, which are key economic contributors to the viability of marine coastal communities in west Scotland.

We have concerns that levels of the neurotoxin SLICE (Emamectin Benzoate) are also not being adequately monitored in farmed supermarket salmon. For example in 2017 the Veterinary Medicines Directorate only analysed muscle and skin, not fat (where toxins accumulate), from 89 salmon for levels of avermectins, which include EMB. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/689411/Published_Results_Paper.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/689411/Published_Results_Paper.pdf) This is a miniscule number of samples when the tens of millions of salmon which are produced and eaten each year are not independently analysed before they reach our supermarket shelves. The Food Standards Agency and the supermarkets themselves undertake no such monitoring of the farmed salmon and they rely wholly on the suppliers to guarantee the salmon as toxin-free.

5. Do you have any views on whether the regulatory regime which applies to the farmed salmon industry is sufficiently robust

It is clear from Section 3 above that COAST do not consider that the regulatory regime is significantly robust. At a recent Arran community meeting with Terry A’Hearn (CEO
SEPA), here at COAST, he stated that we could all hold him to account on the improvements in fish aquaculture regulations that they aim to put in place over the next few years. In a follow up email in response to a request from me to quote him on what he said, he wrote ‘Yes, I'm happy to be quoted as you've stated. It will be hard, but I said it and I meant it. Sorry if I haven't previously confirmed this.’

SEPA has the power to regulate where it sees fit to do so and in COAST’s opinion salmon farm pollution in protected areas are one such case. Protected areas should be protected from any further expansion of salmon farming with a ban on new developments and a plan to taper out all open cages and move them onto land based systems.

6. Do you have any comments on how the UK’s departure from the European Union might impact on the farmed salmon sector?

COAST wish to see all European environmental regulations to continue to be committed to, transposed and enacted by the Scottish Parliament directly and no devolved environmental powers to be returned to Westminster. The commitment to the Water Framework Directive must be maintained to ensure that we do not allow any backsliding on the commitment to attain and maintain good water quality in Scotland’s seas.

Community of Arran Seabed Trust
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