The Global Alliance Against Industrial Aquaculture, 5 February 2017

Super-sized Scottish Salmon - 8,000 tonnes of trouble on the horizon!

Exclusive documents obtained from the Scottish Environment Protection Agency (SEPA) reveal secret plans to expand Scotland's salmon farming industry - including proposals for super-sized salmon farms producing up to 8,000 tonnes of farmed salmon. Today's Sunday Herald reports: "Outrage over secret plans to base world's biggest salmon farm in Scotland".

The Herald
sundayherald

Outrage over secret plans to base world's biggest salmon farm in Scotland

Exclusive by **Rob Edwards**

Secret and lucrative plans for the world's biggest salmon farm around Orkney or Shetland would "abjectly" fail pollution limits and make "fools" of Scotland's environmental watchdog, according to internal documents seen by the Sunday Herald.

The Scottish Environment Protection Agency (Sepa) has been privately considering proposals for a 6,000-8,000 tonne caged fish farm that its own expert says would be "utterly unsustainable", threaten Sepa's credibility, and profit the fish farm industry to the tune of tens of millions of pounds.

The amount of waste from the two-million-fish mega-farm proposed by multinational companies would be equivalent to the sewage from between 400,000 and 800,000 people, one Sepa report estimates. The population of Glasgow city is about 600,000.

Read the FOI documents obtained by GAAIA from SEPA online here - including:

Innovation Sites Meeting, 6 May 2016 – Pre-meeting bullet point briefing

Background

The idea of an Innovation Site has been discussed in various incarnations with SEPA over almost the last decade, first known as a Demonstration Site (2007), then Concept Site (2013) and now an Innovation Site (2015).

Key points

- These proposals have all been characterised by one key feature – the establishment of a very large fish farm site a number of times beyond what would be suggested are sustainable using SEPA's current modelling assessments;
- The proposals have been suggested as an opportunity to "see what happens" when a large farm is established and a challenge to the basis for the current 2500t ceiling on the biomass of fish which can be held at a fish farm ;
- The ceiling was put in place by SEPA because of concerns over the ability of the model used by SEPA, known as AutoDEPOMOD, to predict impacts beyond this tonnage;
- Establishing a very large farm when the best available predictive models suggest it will be utterly unsustainable has never been considered tenable by SEPA, nor can it be considered "Innovative";
- The scale of the suggested sites is considerable, the most recent proposal for an Innovation Site in Orkney was based on a farm of 6-8000 tonnes such a site has a population equivalent of c0.4 – 0.8 million people;

Read the memo from SEPA's Douglas Sinclair dated 4 May 2016 online here

An email to SEPA's CEO Terry A'Hearn dated 13 May 2016 included:

> The Innovation Site Bullets and the large document, apart from the last page obviously, is not in any sense secret but it is drafted with the intention that it would be for internal SEPA consumption.
>
> One final point, and it links to our discussion last week over how many such sites there might be and whether multiple companies might be involved, we had a meeting in March with Marine Harvest Scotland where the possibility of this type of site was discussed. On that occasion, we said that given the proximity of the arrival of DZR etc that we would not be willing to accept an application that didn't comply with current standards ie an application for a large "Innovation Site".

The "not in any sense secret" summary from SEPA dated 13 May 2016 included:

Innovation Site Requirements – Bullet Point Summary 13 May 2016

- Although SEPA currently has a policy stance that no farms larger than 2500 tonnes can be licensed under CAR and a duty that a risk assessment utilising appropriate modelling be undertaken before a CAR authorisation can be granted, it is likely to be possible that such requirements can be set aside by a person with the authority in SEPA's Scheme of Delegation allowing such an application to be accepted and determined;

- Annex B (below) sets out probable requirements for such a proposed site, these should be considered a reasonable draft but not a final position. They will be viewed as negotiable by industry representatives;

- The proposed site will require a bespoke license and monitoring protocol unlike the current form of authorisations;

- A farm of the scale discussed by the sector may allow the trialling of novel techniques and technologies (some of which are currently available others more conceptual) which may be mutually beneficial to SEPA and the sector;

- There will be considerable interest in the proposal both from the sector and environmental NGOs;

- There are some risks associated with such a strategy:
  - in terms of SEPA's credibility as a regulator,
  - in fulfilling our duties under CAR to ensure a proposal is risk assessed before authorisation;
  - that such an application might be "called-in" for determination by Scottish Ministers;
  - that the site will fail to be compliant with Standards as set down in WFD and the Ministerial Standards Direction and;
  - a significant site failure might have considerable impacts on third party interests.

- The timeframe for the preparation of an application is likely to run to more than 6 months, the period during which SEPA will launch a new, less conservative modelling framework and revolutionary licensing approach;

- The revised licensing approach will give the sector what they seek in terms of larger production units but in locations which are demonstrably capable of accommodating them and in a way that will ensure compliance with WFD Standards and Ministerial Directions.

The SEPA memo dated 13 May 2016 continued:

The justifications for the authorisation of a site with these characteristics are that it will provide economies of scale placing the Scottish sector on a similar footing to the Norwegian sector. Also, although the local impacts may be significant, that the overall impacts across a waterbody may be less than those arising from the utilisation of a number of smaller farms. Finally, that it will be a proving ground for new approaches to louse treatment, real time sensors and possibly other novel technologies. It would also clearly make the operator involved a large (8 figure £ per 2 year growth cycle?) profit.

SEPA has been supportive of such a proposal in the past. Indeed in 2013, in concert with Marine Scotland, SEPA produced a paper outlining what the requirements would be to enable the establishment of such a fish farm site. The original requirements and a re-working of these which was presented to Marine Scotland following the initial discussions around the proposal for Innovation Sites during 2015 are attached as Annex A. These form the basis of a statement of the requirements for an Innovation site attached as Annex B.

Is it Possible to Authorise an Innovation Site?
It should be possible for SEPA to accept an application under CAR that meets the requirements as set out in Annex B. It should also be possible to issue an authorisation for a site based on an application that meets those requirements. The requirements are substantially greater than SEPA would normally request in connection with a new fish farm site but reflect the difference in scale and the substantial level of pollutants which such a site might give rise to – a 6000 tonne site is likely to have a population equivalent of 0.4 - 0.8 million people.

A memo from SEPA's Douglas Sinclair to Marine Scotland's Willie Cowan and Alastair Mitchell included:

Comments to Marine Scotland Following Innovation site meeting in Orkney November 2015

Hi Willie and Alastair

This I think is the fourth time that the issue of Demonstration/Concept/Innovation sites has been on the agenda and essentially our position has remained more or less the same throughout. As DEPOMOD generally appears not to provide a reliable prediction of sustainable biomass for sites above 2500 tonnes biomass we retain a presumption against licensing sites greater than that tonnage unless an applicant is prepared to invest in a more detailed hydro-dynamic model to demonstrate the environmental capacity will cope with a larger farm and our established environmental standards would be met. So far no-one has chosen to invest in such an approach, which we find surprising given the investment cost of establishing a farm of this size, the current profitability of the sector, and the relatively low cost of this type of predictive modelling.

SEPA has always maintained a position of welcoming new proposals, new data and advances in ways to match fish production to the environment's capacity to assimilate wastes. Our difficulty over the years with the proposals that have come forward as Demonstration or Innovation sites is that it is highly unlikely that Scotland's environment, or at least the parts of it that have been suggested for these sites could sustain sites of the scale proposed. This situation hasn't changed since such sites were first proposed (back in 2007) primarily because in the meantime the seas around Scotland haven't become substantially deeper nor subject to stronger currents. Importantly nor has there been a general proposal to move to waters which might exhibit such characteristics.

As you know, we consider that a much greater challenge now exists for the industry insofar as the possible loss of effective sea lice therapeutants may render the industry completely unable to rear fish in the conventional way. Time is of the essence here, there are a significant number of innovative techniques emerging to rear fish sustainably without reliance on chemicals. If Scotland does not face this reality head-on and soon, I think we may have a very severe problem on our hands. Any innovation programme which doesn't have an element of this problem is entirely missing the point.

Returning to the proposal which was the subject of the meeting last week, SEPA has no desire to attempt to quash any proposal for development out of hand and indeed would consider any proposal on its merits. On the face of it however, looking at site histories in Scapa Flow, most of the larger sites (and those are generally only a maximum of around 1000 tonnes) have what is best described as a chequered history. The largest site in Scapa Flow (South Cava) has a biomass limit of 1511 and is currently considered "Satisfactory" but has only had a single growth cycle at full biomass. All of the other larger sites: Chalmers Hope (1000 tonnes), Bring Head (968 tonnes) and West Fara (1000 tonnes) have significant histories of failures and indeed the latter site recently was subject to a biomass reduction in order to rein in the scale of impacts seen. These real life results ably demonstrate that a site of the scale of that discussed or even some substantial fraction of that tonnage would likely abjectly fail to meet seabed quality standards. I have no idea what size of farm would be predicted to be sustainable but establishing a site on a Deploy and Monitor basis with a biomass of 6000 tonnes when sites around 1000 tonnes are often seen to fail would make fools of us all but in particular SEPA. What's important to note is that the environment, not SEPA, is the final arbiter. We are simply trying to interpret how we think the environment will respond based on a considerable degree of experience.

It is entirely possible that there are waters around Scotland and indeed particularly around Orkney which could sustain farms of the scale suggested – my comment at the meeting about the Pentland Firth was only partially flippant. If however such a proposal was being made for inshore waters where we already have experience and understanding of the types and scale of sites that are sustainable and where we are confident that modelling produces a good prediction, there seems little point in wasting time considering proposals for sites several times larger than that which are currently unsustainable. It would also be particularly foolhardy to proceed with such a proposal without attempting to use robust and validated models to predict the scale and intensity of the impacts that might arise and judge the proposal on those merits.

In considering the sites you suggested in Shetland, site histories there tell a similar tale of woe, there are 3 operational sites in Dury Voe: Loura Voe 3 (995 tonnes), Bellister (1910 tonnes), North Nesting 2 (995 tonnes) all of which are currently classified as "Unsatisfactory". There are too many sites in the Scalloway area to list here but again in many cases these demonstrate questionable histories and in most cases at relatively small biomasses. The Scalloway Islands area was where the largest farm in Scotland once operated, at Hildasay, with long term catastrophic environmental consequences – the final biomass of this site is not clearly understood but was probably in excess of 5000 tonnes. Again, it may be possible to find a location in either of these areas in Shetland where model predictions suggest a sustainable tonnage of the type of scale set out in connection with the Demonstration Project proposal but superficially at least, it seems unlikely.

The "not so secret" memo from SEPA to Marine Scotland continued:

If the experiment is in some sense to test the capacity of inshore waters to sustain a very large fish farm then when at any point at which monitoring showed the site to be unsustainable then it would be a requirement of the "experiment" and a condition in any associated CAR licence that the experiment would cease. That is, that the farm would be de-populated or the biomass reduced to what is considered to be a sustainable level. Firm and realistic arrangements would also require to be put in place from the outset to deal with mass mortality or a need to cull and dispose of fish before completion production cycle – there are currently no facilities in Orkney or indeed in many other areas of Scotland that could handle waste arisings of such a scale.

Similarly, if another "experiment" is run to test the utility of alternate sea louse control strategies: thermolicers, exclusion strategies, cleaner fish, laser systems etc and based on the use of no more

than two chemical interventions per cycle, should a loss of sea louse control result then the experiment would stop and farm would be de-populated. For this latter reason for establishing a site, it is more appropriate to establish multiple smaller sites within the same water body, that will be exposed to similar levels of sea lice infestation, to test and compare the efficacy of those different strategies. It would be illogical to consider a site of the ground breaking size discussed in our meeting last week for lice control experiments as an ability to deploy "last resort" chemical treatments would be highly questionable on any site of that scale.

Again collection of real time hydrographic data and the use of a hydrodynamic model as well as DEOPOMOD may help to inform louse movements between the sites within the same waterbody and provide information on the fate of medicine residues and wastes from the sites to aid validation of the new version of the DEPOMOD model. As discussed above, firm and realistic arrangements would also require to be put in place from the outset to deal with mass mortality or a need to cull and dispose of fish before completion of the production cycle.

We're not trying to being obstructive here in connection with the proposal for a Demonstration Site, but challenging to ensure we get something worth doing and something which can be described as sustainable, scientific and innovative.

Read all the FOI documents online here - including:

Download 1. Bullet point briefing_Redacted
Download 1a. Innovation.Sites.TA.160506
Download 2. Innovation Site Paper_Redacted
Download 3. Innovation Site requirements_Redacted
Download 3c. Innovation Site Requirements160513
Download 4. RE Demonstration Site & Research Mission to Bergen_Redacted
Download 5. Re Innovation_Redacted
Download 6. SAIC CoE questionnaire SEPA's response 1st draft (3).DS_Redacted
Download 7. The future is coming and it's Egg shaped_Redacted
Download 8. SAIC response
Download SEPA covering letter 31 Jan 2017 F0187229 EIR Response

"This crazy 'experiment' would be the world's largest salmon farm and smash Scotland's pollution limits for salmon farms," said Don Staniford of the Global Alliance Against Industrial Aquaculture. "If SEPA sanctions such stupidity in Scotland's already overcrowded coastal waters they would lose all credibility. Lest we forget that Norway - the world's leading salmon farming nation - has strict biomass limits of less than 1,000 tonnes compared

to 2,500 tonnes in Scotland. Allowing salmon farms to expand to 8,000 tonnes would signal that SEPA has abandoned any pretence to environmental protection."

The Sunday Herald reported (5 February 2017):

> Dr Richard Luxmoore, senior nature conservation adviser for The National Trust for Scotland, warned that the proposed farm would emit "truly eye-watering" quantities of effluent. "I'm shocked to hear that Sepa is even considering a farm that they acknowledge would breach current pollution controls," he said.
>
> The Scottish Wildlife Trust is concerned about the risks of a mass escape of salmon. "It is hard to imagine anywhere on our coast where an 8,000 tonne installation could be placed without having an acute impact on the local environment," said the trust's marine planning officer, Dr Sam Collin.
>
> The angling group, Salmon and Trout Conservation Scotland, was worried about the lice that can infest salmon cages. "Our primary concern would be the risk that such huge farms produce billions of parasitic sea lice, which then infect and seriously compromise the survival chances of wild salmon and sea trout," said the group's aquaculture campaigner, Guy Linley-Adams.
>
> The fish farming industry, however, argued that companies had to innovate and explore options that were good for the Scottish economy. "If broad ranging discussions to look at new ideas and innovations are constantly viewed with suspicion then it will be extremely difficult for Scottish salmon to develop any further," said Scott Landsburgh, chief executive of the Scottish Salmon Producers' Organisation.

"Faced with increasing problems of sea lice infestation, chemical pollution and infectious diseases common sense would dictate that salmon farming production decreases not increases," concluded Staniford. "Sadly, common sense is not a currency SEPA or the Scottish Government is used to dealing with when it comes to their unflinching support for salmon farming. A doubling of aquaculture by 2030 - as the industry and Government proposes - is a recipe for environmental disaster and will leave a lasting legacy of pollution."

Last month, GAAIA revealed that SEPA were planning to scrap biomass limits on salmon farms in order to support a doubling of aquaculture by 2030. GAAIA also revealed that a new 'Enforcement Regime' policing lice-ridden Scottish salmon farms is to be introduced by the Scottish Government from 1 April 2017 - despite "grumbles" from the salmon farming industry.

Read more via:

Press Release: "Recipe for Ruin - SEPA Lifts Limits on Salmon Farms"
Sunday Herald: "Plans to scrap fish farm limits slammed"
Press Release: "Policing Lice-Ridden Scottish Salmon"
Herald: "Imminent action on £300m sea lice problem"

Contact:

Don Staniford: 07771 541826 (dstaniford@gaaia.org)

Notes to Editors:

The following documents were obtained by GAAIA following a FOI request on 4 January 2017 - read online here:

1. Bullet point briefing_Redacted	Adobe Acrobat Document	31 KB
1a. Innovation.Sites.TA.160506	Adobe Acrobat Document	126 KB
2. Innovation Site Paper_Redacted	Adobe Acrobat Document	34 KB
3. Innovation Site requirements_Re...	Adobe Acrobat Document	38 KB
3c. Innovation Site Requirements16...	Adobe Acrobat Document	1,634 KB
4. RE Demonstration Site & Resear...	Adobe Acrobat Document	90 KB
5. Re Innovation_Redacted	Adobe Acrobat Document	38 KB
6. SAIC CoE questionnaire SEPA's r...	Adobe Acrobat Document	137 KB
7. The future is coming and it's Eg...	Adobe Acrobat Document	38 KB
8. SAIC response	Adobe Acrobat Document	64 KB

SEPA
Scottish Environment Protection Agency
Buidheann Dion Àrainneachd na h-Alba

Our Ref: F0187229

If telephoning ask for:
Michael Hampton

1 February 2017

Dear Mr Staniford

REQUEST FOR INFORMATION

Thank you for your recent request, received by SEPA on 04 January 2017, in which you asked for the following information:

Please provide information on "alternative means of controlling sea lice" since 1 January 2016.

Please therefore include information on any discussions, meetings, correspondence and other dialogue and partnership with the fish farming industry (e.g. emails with SSPO), the Scottish Government, the Scottish Aquaculture Innovation Centre and other key partners.

Please consider this a request for information under the relevant Freedom of Information and Environmental Information Regulations including both the Freedom of Information (Scotland) Act 2002 and the Environmental Information (Scotland) Regulations 2004 (as well as any other new or other regulations which may be appropriate).

We have applied the exemption under Section 39(2) of the Freedom of Information (Scotland) Act 2002 as we have determined that the information sought in your request is environmental information. We are therefore handling your request under the terms of the Environmental Information (Scotland) Regulations 2004 (EIRs). In this case the public interest in maintaining this exemption and in dealing with the request in line with the requirements of the EIRs outweighs any public interest in disclosing the information under FOISA.

Please refer to the enclosed documents for all information held by SEPA alternative means of controlling sea lice since 1 January 2016. Please note that personal information have been redacted from the documents in accordance with Regulation 11(2) of the EIRs and Data Protection Principles.

Here's GAAIA's FOI request filed on 4 January 2017:

From: Don Staniford [mailto:salmonfarmingkills@gmail.com]
Sent: 04 January 2017 20:08
To: 'AccesstoInformation'
Subject: FOI re. "alternative means of controlling sea lice"

Please provide information on "alternative means of controlling sea lice" since 1 January 2016.

Please note that a submission by SEPA to the Scottish Parliament in November 2016 - available online here http://www.parliament.scot/S5_Environment/General%20Documents/007_20161214_SEPA_Supplementary.pdf - included:

DB 007

Supplementary submission from the Scottish Environment Protection Agency (SEPA) following meeting on 15 November 2016

SEPA Supplementary Evidence on the Draft Budget 2017-18

During the Draft Budget evidence session on 15 November 2016 SEPA offered to provide supplementary information on a range of issues including commercial services, enforcement, fish farm regulation, research and development, education for air quality monitoring, nature-based flooding, land use planning and planning advice.

3.3. Regulation of sea louse treatments

One method of controlling sea lice is the use of authorised medicines as an in-feed treatment, controlled by conditions included in our fish farm licences and set using the best available evidence. We carry out our own monitoring of the environmental impacts of such treatments and, where necessary, commission analysis of that monitoring to inform the conditions under which treatments are permitted by us through fish farm licences.

We are working in partnership with the fish farming industry, the Scottish Government, the Scottish Aquaculture Innovation Centre and other key partners, to explore alternative means of controlling sea lice, which minimise the risk to our marine environment.

Please therefore include information on any discussions, meetings, correspondence and other dialogue and partnership with the fish farming industry (e.g. emails with SSPO), the Scottish Government, the Scottish Aquaculture Innovation Centre and other key partners.

Please consider this a request for information under the relevant Freedom of Information and Environmental Information Regulations including both the Freedom of Information (Scotland) Act 2002 and the Environmental Information (Scotland) Regulations 2004 (as well as any other new or other regulations which may be appropriate).

Please provide this information electronically.

Please acknowledge receipt of this FOI request.

Many thanks and I look forward to a response shortly.

Thanks,

Don

Don Staniford

Director, Global Alliance Against Industrial Aquaculture (GAAIA):
http://www.salmonfarmingkills.com

<((((º>`·.¸¸.·´¯`·.¸.·´¯`·...¸><((((º>¸.
·´¯`·.¸. ¸ . .·´¯`·.. ><((((º>`·.¸¸.·´¯`·.¸.·´¯`·...¸><((((º>

Download press release as a PDF online here