Semple, Mary

From: Davies, Sandra
Sent: 25 May 2022 10:53
To: maki, planning
Subject: FW: 20/01345/MFF | Formation of fish farm (Atlantic Salmon) incorporating twelve 120m diameter circular cages and siting of feed barge | North Kilbrannan Fish Farm North of Cour Bay, Kilbrannan Sound, East Kintyre, Argyll And Bute [OFFICIAL]
Attachments: FoSoJ North Kilbrannan objection 25052022.pdf; ATT00001.htm

Categories: Mary

Classification: OFFICIAL

Hi

Please attach as an objection from the Friends of the Sound of Jura to the above application.

Thanks

Sandra

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From: John Aitchison <[redacted]
Sent: 25 May 2022 10:05
To: Davies, Sandra <[redacted]
Subject: 20/01345/MFF | Formation of fish farm (Atlantic Salmon) incorporating twelve 120m diameter circular cages and siting of feed barge | North Kilbrannan Fish Farm North of Cour Bay, Kilbrannan Sound, East Kintyre, Argyll And Bute

Dear Sandra

Please find attached a further submission from Friends of the Sound of Jura regarding the planning application 20/01345/MFF.
It details additional modelling of the risk posed to wild salmon and sea trout by sea lice from existing and proposed new and expanded salmon and rainbow trout farms in the Greater Clyde.

Thank you

Friends of the Sound of Jura
www.friendsofthesoundofjura.org.uk
Community Group Member of
The Coastal Communities Network, Scotland
www.communitiesforseas.scot
Friends of the Sound of Jura is a Scottish Charitable Incorporated Organisation: SC049740

FOISA should be verified with the data owner prior to release.

20/01345/MFF | Formation of fish farm (Atlantic Salmon) incorporating twelve 120m diameter circular cages and siting of feed barge | North Kilbrannan Fish Farm North of Cour Bay, Kilbrannan Sound, East Kintyre, Argyll And Bute

As stated in our letters of 19/10/20 and 05/03/21, Friends of the Sound of Jura, an Argyll coastal community group, objects to this proposal.

We have written to you previously about the urgent need for you to consider the cumulative impact of sea lice from all the fish farms in the Greater Clyde on wild salmon and sea trout, rather than considering the impact of lice from new or expanded farms individually.

Argyll and Bute Council has recently confirmed to Jenni Minto MSP that its planning decisions are bound by legislation to consider cumulative impacts, as follows:
S.25 of the Town and Country Planning (Scotland) Act requires that all decisions be made in accordance with the Local Development Plan unless material considerations indicate otherwise. Argyll and Bute's Development Plan states that Scottish Planning Policy 2014 sets out what Planning Authorities need to consider and include within their Local Development Plan policies and guidance. In relation to aquaculture development, paragraph 251 specifically states that cumulative effects must be considered.
Within the supplementary guidance of the Council's adopted Local Development Plan there is a specific criteria-based aquaculture policy. This states that proposals will be supported, where direct, indirect or cumulative significant adverse effects on the Development Criteria are avoided in relation to the locational characteristics of the development.
SPP 2014 defines cumulative impact as "Impact in combination with other development. This includes existing development of the kind proposed, those which have permission and valid applications which have not been determined. The weight attached to undetermined applications should reflect their position in the process."

The Planning Authority clearly has to consider cumulative effects when reaching a decision on a planning application for an aquaculture proposal, including the impact of existing farms and those whose valid applications have not yet been determined.

For this reason, it is essential for you to know the existing sea lice burden in the whole area and the contribution that all proposed new and expanded farms would make to that burden. It is of course possible that the lice burden has already passed a safe level, before adding any more farmed fish hosts for parasites to infest. That seems to be the case in the Greater Clyde.

The Greater Clyde currently has 16 licensed farm sites (counting Carradale as one).
Five new farms are proposed, at North Kilbrannan, South Bute, Cumbrae, Little Cumbrae and Ardentinny – all of which have CAR licences, with a substantial expansion proposed at Ardyne. Together these would bring the total licensed peak production in this waterbody to around 36,000 tonnes, adding more than 40% to the total farmed fish biomass and increasing the number of fish hosts for sea lice by the same amount.

Friends of the Sound of Jura and other community groups have been working with the hydrodynamic modelling company MTS-CFD to model the dispersion of infectious sea lice

larvae from these farms. The results of the latest modelling are summarised in the maps below, showing sea lice copepodid larval densities in the sea.

The modelling parameters were outlined in detail in our previous letters. They now include the vertical movements of sea lice to avoid low salinity and in reaction to light.
The 3D hydrodynamic model has been validated against field measurements. The lice densities shown in the heat maps below have not been validated against field measurements of sea lice. The lice densities in the modelling previously submitted to you by Mowi have also not been validated against field measurements of sea lice.

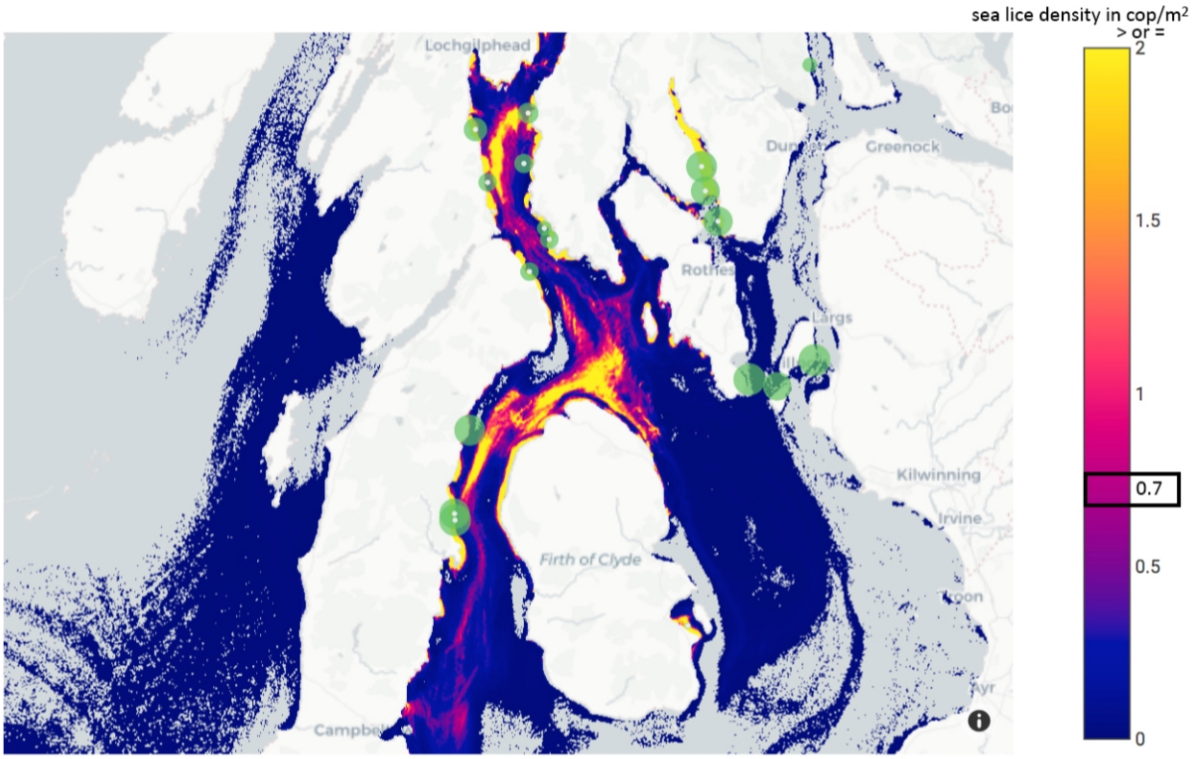

Figure 1. *The modelled distribution of infectious copepodid sea lice larvae (averaged over the period 06/05-30/05) released by the* ***existing*** *fish farms in the Greater Clyde.*
These farms are shown as green circles containing white dots. Circles without white dots represent proposed new farms. These contribute no lice to this map.
All farms are assumed to have counts of 0.5 adult female lice per fish – the industry's Code of Good Practice target during wild smolt migration.
All circles apart from Ardyne's are sized in proportion to their biomass in May of the second year of production. St Molios (Lamlash Bay, Arran) is the only farm in its first year of production when the others are in their second year, hence its circle is small, representing a small biomass during the modelled period.
This modelling does not include lice from any farms in upper Loch Fyne.
The box on the colour scale indicates the threshold density of 0.7 copepodid lice larvae/m^2 of sea surface – as proposed by SEPA and used by the Norwegian state to indicate the boundary between low and medium risk of harm to wild salmon smolts, if exposed to that lice density for 24 hours. More on this below.

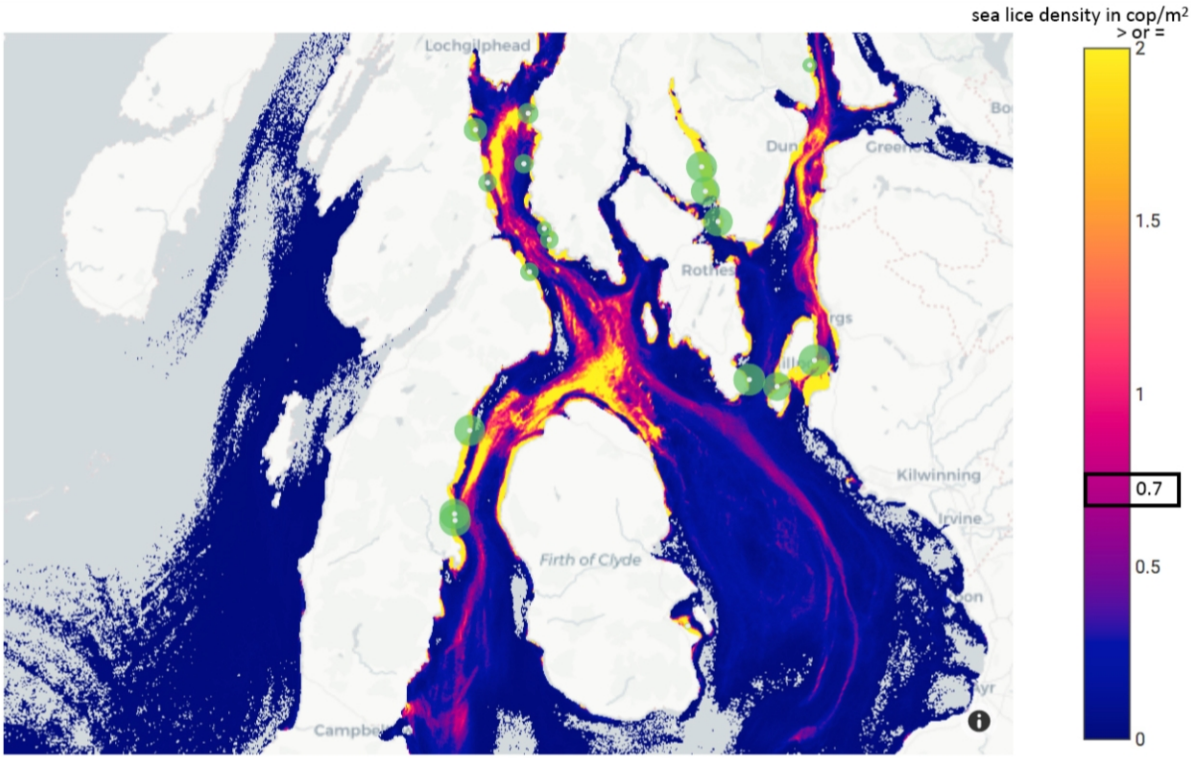

Figure 2. *The modelled distribution of infectious copepodid sea lice larvae (averaged over the period 06/05-30/05) released by the* ***existing and proposed new farms*** *at North Kilbrannan, South Bute, Cumbrae, Little Cumbrae and Ardentinny, and the expansion at Ardyne fish farms. These farms are shown as green circles containing white dots. All circles are sized in proportion to their likely biomass in May of the second year of production.*
All farms are assumed to have counts of 0.5 adult female lice per fish – the industry's Code of Good Practice target during wild smolt migration.
This modelling does not include lice from any farms in upper Loch Fyne.
The box on the colour scale indicates the threshold density of 0.7 copepodid lice larvae/m² of sea surface – as proposed by SEPA and used by the Norwegian state to indicate the boundary between low and medium risk of harm to wild salmon smolts, if exposed to that lice density for 24 hours. More on this below.

0.5 adult female lice per fish is the target in the industry's voluntary Code of Good Practice during the period of wild salmon migration.
In the week beginning 25th April 2022, seven of Mowi's Scottish farms had lice counts above this level. At peak production in 2021, Mowi's Carradale farm had the following lice counts:

29/03/2021	05/04/2021	12/04/2021	19/04/2021	26/04/2021	03/05/2021	10/05/2021	17/05/2021	24/05/2021
2.15	1.43	1.88	1.21	1.17	1.13	1.74	2.49	1.03

The lice count for the week beginning 17th May is five times higher than the industry CoGP. The farm was producing five times more lice larvae than was assumed in the modelling used to produce the maps above.

At 5000t peak biomass, Carradale is the largest salmon farm in Scotland. It holds just under a fifth of all the salmon biomass in the Greater Clyde, so it plays a significant part in determining the sea lice density in the area. Clearly the company cannot reliably control sea lice numbers at this farm or mitigate the risk to wild fish.

As you know, SEPA will be taking over responsibility for assessing and mitigating the risk of harm to wild salmonids due to sea lice from fish farms. SEPA has proposed to use the threshold value already in use by the Norwegian state, for harm caused to wild salmon smolts by exposure to copepodid sea lice.
Exposure for 24 hours to a density of 0.7 copepodid sea lice per square metre of water (and in the column of water below that) is the threshold between a low and medium risk of harm to small salmon smolts. The relationship is linear, so 12 hours exposure to 1.4 cop/m^2, or 48 hours at 0.35 cop/m^2 are considered to result in identical risks.

Please note that this threshold of 0.7 copepodid sea lice per square metre of water is lower than the 2 cop/m^2 mentioned in our letter of 5th March 2021. Since then, SEPA has correctly proposed to follow the Norwegian state by limiting sea lice impacts to the threshold between low and medium risk of harm to wild salmon smolts, rather than using the threshold between medium and high risk of harm (i.e. 2 cop/m^2).

Please also note that the sea lice modelling submitted to you by Mowi assumed that each adult female sea louse would release 16.9 larvae per day. Mowi has subsequently accepted that the standard assumption used by Norwegian and Marine Scotland modellers (for instance in Marine Scotland's SPILLS project, of which Mowi is a member) is that 30 larvae will be released each day by each female louse.
As this difference nearly doubles the lice density in the sea you should ask Mowi to resubmit its sea lice modelling.

The time required for wild salmon smolts to migrate through the Greater Clyde is not precisely known and nor is their route. It is likely that many smolts will exceed the exposure time required for them to face an unacceptable level of risk from sea lice. Wild sea trout do not migrate and will necessarily spend longer being exposed to this risk than salmon.

As wild salmon from the Endrick Water SAC travel down the River Clyde, they will encounter high sea lice densities from the proposed DawnFresh farms as well as lice from the existing farms at Ardyne etc, and may then swim counter-clockwise around Arran, further increasing their exposure to sea lice larvae.

Argyll and Bute Council must be certain beyond reasonable scientific doubt that the cumulative effect of consenting new or expanded fish farms in the Greater Clyde will not add to the risk that the population of salmon in the SAC already faces.

In the light of this modelling, which shows that there is already a significant risk of harm, it is impossible for you to be certain beyond reasonable scientific doubt that the SAC's wild salmon population will not be harmed by consenting more farm biomass.
You should not consent any expansion of fish farming in the Greater Clyde at least until SEPA's new system for assessing and regulating this risk is in place.

Clearly this objection applies to other planning proposals for new or expanded fish farms in the Greater Clyde, including 19/02539/MFF (Relocation and enlargement of existing marine fish farm from 1198 tonnes to 2070 tonnes. Ardyne Fish Farm Loch Striven), and to the proposed DawnFresh farms at South Bute, Ardentinny, Cumbrae and Little Cumbrae, some or all of which are at planning permission screening and scoping or pre-application stages, and all of which have already been issued with CAR licences.