

Objection to:

CAR/L/1178003

by AFF (Against Fish Farming)

Opening Statement:

The action group AFF would like to make an objection representation to SEPA regarding Dawnfresh Farming Limited to dump waste effluent and chemicals into Loch Long at Ardentinny.

AFF (Against Fish Farming) is a group of concerned volunteers resident to Ardentinny. The group undertook a comprehensive survey in Ardentinny village by distributing a hundred and thirty questionnaires regarding the proposed fish farm. Seventy-one questionnaires were returned showing an overwhelming rejection of the proposal.

(Percentages referred to in this representation and concerns raised reflect the data collected. A full report regarding the survey by AFF is being represented separately to SEPA.)

What follows is AFF's response regarding the various elements of the application under review:

1. Assess the risk to the water environment posed by the carrying on of the activity or activities:

- AFF feels that SEPA is lacking vital information necessary to approve the application as it does not have a seabed survey and a full hydrodynamic survey.
- Dawnfresh Ltd. has used a now discredited computer-based model called AutoDepomod.

"Seperately SEPA acknowledged that AutoDepomod cannot assess large scale dispersion, waste transport, the effect it has, the culminative impacts of several farms, or storms that often redistribute waste."

Source:

http://www.parliament.scot/S5_Environment/General%20Documents/Written_submission_FoSoJ_updated.pdf

- No data has been collected regarding the biodiversity of the Benthic zone.
- The moorings for the fish farm could be located in waters of only 45 metres in depth meaning that the whole installation will be close in shore due to this restriction.
- Ardentinny is situated many miles from open sea. This will negatively affect the timescale of change over and the dispersion of water around the fish farm area. This water will contain trade effluent of faeces, food and the toxic medicines azemethipos, cypermethrin and deltamethrin seriously impacting on water quality.
- Azemethipos is moderately toxic to mammals and highly toxic to bird and aquatic species particularly larvae.
- *"In a study entailing an exhaustive review of the literature evaluating lethal and sub-lethal effects of anti-sea lice pharmaceuticals on non-target crustaceans, in order to assess the extent of the effects, toxicity, and variables affecting such toxicity and identify potential synergistic affects previously unexplored, our results show clear negative effects at concentrations lower than those used in treatments against sea lice in all of the species studied. Likewise, this study demonstrates knowledge gaps that need to be addressed in order to improve our understanding of the affects of these pharmaceuticals on non-target species, ecosystems in general and other productive activities."*

Source:

<https://www.sciencedirect.com/science/article/pii/S0048969718333059>

- In 2017 Dawnfresh Ltd. breached rules on the use of drugs to control sea lice at their 'Loch Etive 6' site with the use of consecutive azemethipos bath treatments- less than 24 hours after the first treatment was investigated by SEPA.

- *“Antifoulant paints which contain toxic chemicals for preventing growth of marine plants and animals are used on fish cage structures and nets. These chemicals will gradually be released to the marine environment. The washing of antifoulant coated nets also causes concern as the spent washings have been found to contain unacceptably high concentration of copper and zinc.”*

Source: http://www.ukmarinesac.org.uk/activities/water-quality/wq8_22.htm

- *‘Waste feed and faeces from fish farms can collect on the seabed under fish cages. This increase in organic matter has an impact on this benthic environment, affecting the nature and chemistry of sediments, and can reduce the diversity of animals living there.’*

Source: <https://www2.gov.scot/uploads/documents/ae01environimpact.pdf>

- Between 2010 and 2021 Scottish water will have invested more than £600 million in waste water treatment works and sewerage systems in the river Clyde. They are currently working to improve the sewerage system between Kilmun and Strone to improve water quality.
To allow Dawnfresh to discharge tonnes of trade effluent which includes toxic medicines contradicts the aims of Scottish water and is counterproductive.

2. Assess the indirect effects of that impact on any other aspects of the environment likely to be significantly affected:

- AFF felt that SEPA could not predict with certainty where waste from the Ardentinny site would end up. At present plastic debris from the tidal flow is carried up the loch and deposited on Ardentinny beach and further up loch Long at Arrochar. The direction of flow means that waste from the fishfarm will be carried up the loch and deposited on Ardentinny beach. This is the only sand beach in the area. It is a leisure destination used by families, and is in clear view from the fish farm due to its close proximity.

- In 2017 the Scotsman paper reported the return of salmon to the upper Clyde where before pollution had driven the species almost to extinction:

"The Scottish Environment Protection Agency (Sepa) said the Clyde was in "significantly better health" than expected thanks to high levels of investment. Some parts of the river are now graded as "excellent" after recovering from years of pollution."

Source: <https://www.scotsman.com/news/environment/salmon-return-to-the-clyde-as-water-quality-improves-1-4456252>

- In 2018 the Marine Conservation Society submitted evidence to the Scottish Parliament Review on the Sustainability of Fish farming:

"One of our main concerns is that unacceptable sea lice numbers have been reported in Scottish salmon farms. High sea lice numbers mean that chemical treatments have to be used to get rid of them. On one hand, this continued chemical use means sea lice are becoming increasingly resistant to treatments. On the other, scientists don't fully understand the wider environmental impacts of their use on the marine environment."

Source: <https://www.mcsuk.org/news/is-scottish-farmed-salmon-sustainable>

- Loch Long's sealife is abundant: humpback whales, northern bottle nosed whales, porpoises, porbeagle sharks, seals and orca have all been seen and confirmed to visit the area. Loch Long also supports birds such as gannet, heron, cormorant, black guillemot and osprey. The area has also seen the return of otter, a protected, popular species. All of these animals are extremely reliant on unpolluted water and healthy fish stocks.
- In the AFF survey, 95% of respondents expressed "Serious Concern" regarding the fish farm's impact on the environment and wildlife of the local area. Concerns raised included:
 - Ardentinny has the only stretch of sandy beach in the area, used by residents and visitors who will risk exposure to chemical pollutants.

- Concerns about the small seal colony on the point near the lighthouse which is adjacent to the proposed development site.
- Concerns about sea lice infestations and their effect on local fish populations.

3. Consider any likely adverse social and economic effects of that impact and of any indirect environmental effects that have been identified:

- In relation to the importance of Cowal's waters to Scottish tourism, David Adams McGilp, Regional Director of Visit Scotland, said:

"The Year of Coasts and Waters 2020 (YCW2020) will shine a spotlight on the impact our waters have on our country and inspire visitors, locals, and the tourism and events sector to get involved and enjoy everything the year has to offer".

"Bordered by sea lochs on three sides and boasting beaches, beautiful coastal walks, a wonderful variety of wildlife and world class food and drink, the Cowal peninsula has a fantastic tourism offering that ties in perfectly with the year".

Source: Dunoon Observer & Argyllshire Standard, Friday 10th May 2019, No. 7694.

- Ardentinny is a tourist destination. Visitors come for the beautiful sandy beach, the attractive coastline, and to participate in various water-based activities. Visitors also come for the multiple holiday lets, the caravan park, to visit the community walled garden and to use the local hotel and restaurant which has moorings for visiting yachts. The beach is popular with responsible wild campers and fishing enthusiasts. Children from all backgrounds also come to stay in the Ardentinny Outdoor Education Centre, and a lot of their activities are water based. The loch's beauty, it's clean water, and its variety of wildlife brings tourists back year after year. This tourism is vital to the local economy, and provides local employment.

- The loch supports several local prawn fishing boats, one of which works directly and is moored in Ardentinny.
- Concerns raised by respondents to the AFF survey regarding potential effects of the fishfarm on local tourism and the local economy included:
 - *Tourists would find the aesthetics of the industrial fish farm visually unattractive.*
 - *Tourists comment on the wildlife of the area and in particular the local seal colony.*
 - *It is impossible to see how the fish farm would be other than detrimental to tourism in Ardentinny.*
 - *The proposed fish farm would destroy the appeal of the National Park area.*

4. Consider the likely environmental, social and economic benefits of the activity:

- 90% of residents surveyed were opposed to the industrial fish farm, and could see no social or economic benefits to the development.
- Dawnfresh have stated the provision of six jobs at the Ardentinny site. AFF feel that any benefit from these jobs would be negated by the adverse impact on the employment that is created by tourism. AFF also feel that there is no guarantee attached to these jobs as regards timescale once the fish farm is established. As technology advances in aquaculture there is a reduction in human input.

From an article from the Institute of Marine Research, In Bergen:
 “ You have huge variations in how much to feed every day,” says Mr Folkedal. He adds that “the data can be used to operate completely automated feeding systems, with humans simply overseeing the process.”

“It's not hard to imagine highly automated fish farms of the future, in which humans have very little to do.”

Source:

<https://www.bbc.co.uk/news/business-43032542>

5. Assess the impact of the controlled activity or activities on the interests of other users of the water environment:

- The loch is used by people of all ages for paddling, swimming, snorkelling, recreational fishing, prawn fishing, rock-pooling, sailing, kayaking/canoeing and other beach and water-based activities.
The position of this fish farm would force small boats, kayaks and canoes further out onto the loch and into deeper waters, where winds are stronger, leading to serious safety concerns.
- Responses gathered by the AFF survey on the topic include:
 - Concerns about the impact of chemical pollution in the water in relation to the Outdoor Education Centre based in the village which regularly takes groups of children out on and into the loch.
 - One respondent stated that it was, *“impossible to see how the fish farm couldn't have an impact on the children's use of the beach”*.
 - Concerns that pollution from the fish farm would prevent people from being able to wild swim safely.
- From the official SEPA website:
‘Improving Scotland's water environment remains a priority for us. We continue to work with our partners to raise all sites to the sufficient or better classification and to make our summer visits to the beach safer and more enjoyable’.

Source: <https://apps.sepa.org.uk/bathingwaters/>

Closing Statement

Against Fish Farming (AFF) and the residents of Ardentinny ask SEPA to uphold the aims outlined in their Bathing Waters Statement, and apply those same standards to protect our area's vulnerable beach and waters.

We ask that you refuse application CAR/L/1178003, which would discharge effluent from the proposed fish farm. This effluent, which includes residues from medicines and sea lice treatments, is a health risk to our sensitive wildlife, and to the many people who use and rely on our clean water environment. It could also irreparably damage tourism in the area, which would have a devastating effect on the local economy.