

Our ref: CAR/L/1178003
Your ref:

**FAO: Those who made original representation to adverts
placed in the Dunoon Observer and the Edinburgh Gazette
on 10 May 2019**

10 September 2021

Dear Sir/Madam,

**THE WATER ENVIRONMENT (CONTROLLED ACTIVITIES) (SCOTLAND)
REGULATIONS 2011 (“THE REGULATIONS”)**

NOTIFICATION OF THE PROPOSED DETERMINATION OF AN APPLICATION

**APPLICATION FOR: AUTHORISATION
REFERENCE NUMBER: CAR/L/1178003
LOCATION: ARDENTINNY MARINE PEN FISH FARM**

Thank you for your written representation to us regarding the above application.

We are writing to let you know that we have considered the application and are now ready to make our decision and that you now have the opportunity to object to the proposed decision, if you so wish.

SEPA now hereby gives you notice that it proposes to grant an authorisation for the operation of a marine pen fish farm subject to the conditions in the draft authorisation attached to this letter.

In reaching the decision to grant an authorisation, we considered a range of information, including the duly made written representation you submitted to us. Details of how each representation, including yours, was taken into account can be found in the Appendix to this letter.

If you object to our proposed decision to grant an authorisation, you have 21 days (“the 21-day period”) from the date on this letter to notify the Scottish Ministers of your objection by emailing them at:

EQCAT@gov.scot

Or by writing to them at the following address:

Scottish Ministers, Scottish Government, Environment and Forestry Directorate, Environmental Quality Division, Area 1-D (North), Victoria Quay, Edinburgh EH6 6QQ

If you, or anyone else, submits a notification objecting to our decision within the 21-day period, the Scottish Ministers may direct us to refer the application to them so that they can make their own determination. This is known as “calling in” an application.

Any such notification **must** also be copied to SEPA at:

registry@sepa.org.uk

If a notification is sent to the Scottish Ministers **and** copied to SEPA within the 21 day period, our proposed decision to grant a permit will be put on hold until either:

- we receive written notice from the Scottish Ministers that they do not intend to call in the application; or
- a period of 63 days, beginning with the date of service of this notice, has expired and we have received no written notice from the Scottish Ministers.

Important note, please read: In order for your objection to the Scottish Ministers to be considered by SEPA you **must** send a copy of your objection notification to us **within 21 days of the date of this letter**. If we do not receive a copy of any objection to the Scottish Ministers, we may proceed with our determination irrespective of your objection.

If you do not object to our proposal to grant an authorisation, you do not need to take any further action.

If you have any questions regarding this letter, please contact registry@sepa.org.uk, using the reference ‘CAR/L/1178003 – Ardentenny Marine Pen Fish Farm’ in the subject line.

Yours faithfully

Appendix to 21 Day Notice Letter re: CAR/L/1178003 – Ardentinny Marine Pen Fish Farm

Section 1 of this Appendix will address the issues that have been raised by representees that are under the regulatory remit of SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 or 'CAR'. Section 2 will address the issues that have been raised that do not fall under the regulatory remit of SEPA under CAR.

SECTION 1

Organic wastes and seabed impacts

Limiting the impact of organic waste deposition on the seabed in the vicinity of the fish farm is a cornerstone of SEPA's licensing approach for Marine Pen Fish Farms (MPFFs).

SEPA was involved in the development of the Depomod models which simulate the transport and deposition of particulate matter (for example fish faeces and waste feed) from MPFFs. AutoDepomod modelling was included as part of this application as was acceptable to SEPA at the time of submission. Since then, the more sophisticated NewDepomod has replaced Autodepomod as the industry standard and an application minimum requirement. As a result, SEPA has undertaken its own NewDepomod modelling of this site as part of the application determination.

The new licensing framework developed by SEPA and introduced in 2019 allows the degradation of an area of seabed around the fish farm known as a 'mixing zone'. It is equivalent to the area of the cages plus 100m in all directions, referred to as the Allowable Mixing Zone (AMZ). This degradation is measured, for example, in terms of the impact of pollution on the populations of animals in the seabed described by an index known as the Infaunal Quality Index (IQI). At the edge of the mixing zone, conditions should be returning to normal as demonstrated by the IQI score being "Good" or better. Additionally, SEPA places limits on the intensity of impacts within the mixing zone, such that even where the predicted footprint does not exceed the 100m mixing zone, the scale of operations at the site can be restricted to ensure that flora and fauna within the mixing zone are not too severely impacted.

Modelling at the application biomass of 2127.6 tonnes predicted a mean deposition within the AMZ of 6249g/m², which greatly exceeds SEPA's permitted mean deposition of 2000g/m² and thus the application biomass is not acceptable to SEPA as it does not meet the requirements of the regulatory framework for MPFFs. At a biomass of 570 tonnes, modelling predicts a mean deposition within the AMZ of 2028g/m² and an 0.64 IQI impact area of 58.5% of the AMZ. The figure of 2028g/m² is within the 5% model variation of the threshold, and therefore the farm is predicted to be able to meet both biological standards under the new framework. SEPA has therefore recommended a maximum biomass of 570 tonnes, as opposed to the application biomass of 2127.6 tonnes, in the original proposed site configuration of 10 x 120m pens. This information was communicated to Dawnfresh Farming Limited (DFL) who have stated their agreement to the revised maximum biomass of 570 tonnes.

Water Column Nutrient Levels

In assessing water column nutrients e.g., Phosphorus and Nitrogen which could contribute to eutrophication and algal blooms, SEPA consults with Marine Scotland who undertake hydrographic modelling on our behalf. Marine Scotland's consultation response received on 9 April 2019 confirmed that their modelling of the proposal suggests that the impact of nutrients is acceptable, and they had no objection to the proposal. Loch Long is a Category 3 sea loch under the Scottish Government's Locational guidelines and will remain so with this proposal.

Sea Louse Treatment Medicines

A number of concerns were raised relating to the use of sea louse medicines azamethiphos, deltamethrin, cypermethrin and hydrogen peroxide. These included the impact on marine life in general, but in particular commercial shellfish and fish stocks; priority marine features; and on plankton.

During the determination period, SEPA informed DFL that the modelling suggested they were unlikely to get any practically useable quantity of cypermethrin. DFL confirmed on the 28 June 2021 that they wished to withdraw the application for the use of cypermethrin.

Sea louse medicine releases have the potential to negatively impact on plankton populations in the vicinity of the fish farm. However, SEPA seeks to control and limit the extent of the harm by imposing conditions on the use of these products such that either the area or time over which they may have an impact is restricted. Environmental Quality Standards (EQS) are safe concentrations for sea louse medicines and have been set to be protective of all species in the environmental matrix where exposure is likely to be highest. For bath medicines, this is the water column where they are predicted to be likely to disperse in a plume which stays near the surface down to a maximum of 10m. Modelling to determine the fate of residues following the use of bath treatment sea-lice medicines containing azamethiphos and deltamethrin has been carried out. According to the modelling undertaken, the EQS for azamethiphos and deltamethrin will not be breached if releases are restricted to the quantities set out in the draft permit.

Concerns were raised regarding the effect sea louse medicines could have on recreational water users e.g. pleasure boaters, leisure divers, surfers, paddle boarders, kayakers, wild swimmers or anglers. A claim was also made that azamethiphos and deltamethrin were carcinogenic and therefore a risk to recreational water users. The potential for human health impacts arising from azamethiphos, deltamethrin or hydrogen peroxide releases from fish farms is not considered as part of SEPA's determination under CAR. It is the responsibility of the Local Authority to assess potential impacts of sea louse medicines on human health under the planning function. Planners should be advised by their own local health board, who in turn can seek assistance from the Public Health Scotland if they feel it is needed. SEPA can provide assistance in relation to relevant modelling.

Zinc and Copper

Concerns were raised that the leaching of Zinc (from fish feed) and Copper (from net anti foulant) would be a risk to marine life and result in environmental damage. Releases of zinc and copper to the environment from MPFFs are known but the concentrations have been assessed as being unlikely to significantly adversely impact the environment out with the vicinity of the MPFF.

Antibiotics / Antimicrobials

Antibiotics used in MPFFs are licensed by the Veterinary Medicines Directorate as part of the Market Authorisation process. Environmental risk assessments are undertaken as part of this licensing process to limit environmental impacts.

Benthic Survey

Claims have been made that no seabed survey has been undertaken of the proposed site location to assess biodiversity of the benthic communities. SEPA can confirm that a survey of the proposed farm location was undertaken and submitted. That survey met with SEPA's application requirements.

Closed containment

Closed containment is an approach to fish farming that reduces the impact of the farming activities on the environment by allowing the collection of particulate wastes and residues and reducing the likelihood of sea louse infestations. SEPA's licensing framework permits the operation of farms

based upon open-net technologies provided that they meet the standards set out by SEPA. The proposal for Ardentinny is based on open-net technology that meets required current standards.

Priority Marine Features

There are records of the following Priority Marine Features (PMFs) within 3km of the fish farm, though none are known to be of national importance, and some are mobile species:

Habitat PMFs:

- Kelp and seaweed communities on sublittoral sediment
- Burrowed mud
- Burrowed mud or inshore deep mud with burrowing heart urchins

Species PMFs:

- Basking shark
- Ocean quahog

SEPA determines whether there is a likely significant risk that the operation of a fish farm will harm a PMF. In coming to a determination, SEPA uses its own expertise but also considers advice and information provided by others, for example Nature Scot.

In the case of the proposed Ardentinny fish farm, SEPA has concluded, that while there will be some impact to PMFs within proximity to it, the impact of the fish farm is not likely to be significant. This is because, although there are PMFs within the likely footprint of the farm, the quantity and/or quality of the PMFs in the area is not substantial and even if they were lost by the impact of the fish farm, it would not represent a nationally significant issue. Furthermore, mobile PMF species are able to avoid the location of the fish farm if the conditions in the vicinity of the farm are unfavourable to them.

REC/ECCLR SG Inquiry

SEPA took part in the inquiries run by the Rural Economy and Connectivity Committee and the Environment Climate Change and Land Reform Committees in 2016. While the committees suggested that the *status quo* was not an option for the salmon farming sector, no direct changes to the pollution control legislation relating to the sector arose from the committees' deliberations. SEPA has, however, substantially changed the regulatory framework for the sector under CAR with the introduction of a new framework during 2019. This has changed much of the way SEPA regulates the industry including changes to monitoring and modelling. The application for Ardentinny was handled under transitional arrangements that were in force at the time the application was made. The transitional arrangements meant AutoDepomod was accepted as part of the application and SEPA subsequently undertook NewDepomod so that the determination fulfilled all the criteria of the new framework.

Dawnfresh Farming Ltd

A concern was raised about DFL's performance as a company as a fish farm operator. CAR requires (under Regulation 8) that SEPA should only grant an authorisation to a person or corporate body where "*it is satisfied that that person will secure.....compliance*" [with the authorisation]. SEPA is satisfied in this case, that DFL are capable of securing compliance with the authorisation for the new proposed fish farm.

SECTION 2

Wild Salmonids, Farmed Fish Escapes and Sea Lice

A number of representations raised the possibility that the operation of the fish farm at Ardentinny would have impacts upon wild populations of salmonids. The concerns surrounded the effects of sea lice emanating from the cages, the spread of salmonid diseases and the escape of farmed stock.

SEPA are in the process of developing a new regulatory framework for managing the interaction between sea lice and wild salmonid fish. This will be consulted on in due course. Currently sea lice and wild fish interactions will continue to be considered by local authorities during the determination of planning applications and any impacts from sea lice aren't considered as part of an application determination under CAR.

Sea louse levels, salmonid diseases, and farmed fish escapes at an MPFF is a matter currently considered and advised on by Marine Scotland, as part of its functions under the Aquatic Animal Health (Scotland) Regulations 2009 and the Aquaculture and Fisheries (Scotland) Act 2007, as amended by the Aquaculture and Fisheries (Scotland) Act 2013.

Inshore Fisheries

It is clear that the establishment of the marine fish farm at Ardentinny will exclude fishing operations from the area occupied by the farm cages. It is also likely that the emissions from the farm will potentially impact upon commercially important species over the benthic footprint of the farm. As discussed in Part 1 above, SEPA includes conditions in the permit for a fish farm to ensure that the extent and intensity of impacts upon the fauna on the seabed are limited. These include conditions relating to seabed enrichment and the discharges of sea louse medicines. Thus, while there will be an effect on inshore fisheries from the presence of the fish farm, this effect is limited by conditions in the permit issued by SEPA. Competition for space within inshore waters and the priority that one sector might be given over another is dealt with via the Town and Country Planning framework for which the responsibility lies with the Local Authority.

Fish Welfare Issues

Concerns were raised about general fish welfare issues involved in rearing fish in marine pens. The welfare of fish lies with the veterinarians employed by the fish farm operator. Regulation of welfare issues in farmed fish rests with the Marine Scotland Fish Health Inspectorate or the Animal and Plant Health Agency of the Scottish Government.

Impact on Marine Megafauna

SEPA's statutory regulatory remit under the provisions of CAR deals with the authorisation of discharges of polluting matter from the proposed fish farm. It does not extend to the regulation of Acoustic Deterrent Devices or the risk of entanglement or the disturbance of animals such as seals, cetaceans, otters, basking sharks, marine birds, etc. The use of these devices and questions of noise and disturbance to marine megafauna principally falls to be regulated by the Local Authority and/or Marine Scotland in regard to their respective regulatory remits.

Local Economy, Tourism and Recreation

A number of concerns were raised regarding the impact of the proposal on tourism businesses and recreation in the area e.g. charter boats, pleasure boaters, leisure divers, surfers, paddle boarders, kayakers, wild swimmers, anglers who visit the area. While the degradation of seabed caused by the discharges from the fish farm may discourage these activities close to the cages, the area of impact is restricted by conditions set in the draft permit and will be monitored by the operator or consultants working on their behalf. The competing interests including spatial disputes of different

sectors in a particular area is dealt with via the Town and Country Planning framework for which the responsibility lies with the Local Authority.

Visual Amenity and Noise

SEPA's statutory regulatory remit under the provisions of CAR does not extend to consideration of impacts to the visual landscape, nuisance smells or noise associated with either the proposed site or associated ancillary operations. These issues principally fall to be regulated by the Local Authority with regard to their respective regulatory remit.

Shipping hazard

The site and its ancillary equipment posing a hazard in busy shipping lane has been raised as a concern. The risk posed to shipping by a fish farm is not a consideration under CAR. This matter is dealt with as part of the licensing arrangements operated by local authorities and Marine Scotland with input from the Northern Lighthouse Board.

Military activities

The potential for conflict with military activities are similar to the issues surrounding the proposed farm being a hazard to shipping dealt with above. The possibility that the establishment of the fish farm may interfere with military activities, for example a naval anchorage, would be dealt with during the determination of a planning application by the local planning authority.

No Environmental Impact Assessment completed

The Environmental Impact Assessment (EIA) process is not managed by SEPA, nor may SEPA require an EIA as part of the documentation accompanying a CAR application. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 are regulated by local planning authorities. They are responsible, under these regulations for deciding whether an EIA is required, known as the "Screening" process and the extent of that EIA - the "Scoping" process. Whilst not the body that manages EIA, SEPA is a contributor to both the Screening and Scoping processes in its role as a consultee to the process.

General Litter and Fallen Stock

Whilst the CAR permit does not directly regulate littering and fallen stock disposal, DFL have a legal responsibility under what is known as Duty of Care legislation to appropriately dispose of any wastes generated as part of their activities. During site inspections at MPFFs, SEPA officers may routinely check for Waste Transfer Notes as evidence that the correct disposal of wastes arising from farming activities is being undertaken.