

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Notice: Variation of Authorisation

The authorisation detailed below is varied by the Scottish Environment Protection Agency (SEPA) in exercise of its powers under regulation 22 of the Water Environment (Controlled Activities)(Scotland) Regulations 2011 (“the Regulations”). This Notice is issued in accordance with Regulation 24(4) of the Regulations.

Authorisation Number:	CAR/L/1109999
Authorised Person:	Mowi Scotland Ltd SC 138843 1 st Floor Admiralty Park Admiralty Road Rosyth Fife KY11 2YW
Variation Number:	VAR01
Authorised Place:	Muck Marine Pen Fish Farm Isle of Muck
Effective Date of Variation:	1 May 2023
Details of Variation:	The authorisation is varied as specified in the Schedule attached.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01



Schedule

The authorisation is varied as follows:

1. The Contents page and Schedules 1 to 8 have been deleted and replaced with a new Contents page and new Schedules 1 to 8 as attached to this Schedule.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Contents

Schedule 1: The Authorised Person and Activities	2
1.1 Duty of Authorised Person	2
1.2 Authorised Activities.....	2
Schedule 2: Marine Pen Fish Farm Description	3
2.1 Fish Species.....	3
2.2 Maximum Weight of Fish.....	3
2.3 Fallow Period and Restocking.....	3
2.4 Pen Configuration	3
Schedule 3: Permitted Medicines and Substances.....	6
3.1 Medicine Discharge Minimisation	6
3.2 Medicines and Permitted Substances.....	6
3.3 Bath Medicinal Treatments	6
3.4 In-feed Medicinal Treatments	7
3.5 Permitted Substances.....	8
3.6 Notification of Medicine Use	10
Schedule 4: Seabed Standards	11
4.1 Biological Seabed Standards	11
4.2 Chemical Seabed Standards.....	11
Schedule 5: Environmental Monitoring.....	12
5.1 Environmental Monitoring Plan	12
5.2 Biological Sampling Period	13
5.3 Chemical Sampling Period and Locations.....	13
5.4 Notification of Monitoring.....	13
Schedule 6: Environmental Events.....	14
6.1 Notification of SEPA.....	14
6.2 Management of the Event.....	14
6.3 Reporting of the Event.....	14
Schedule 7: Record Keeping and Data Submission	15
7.1 Data Recording.....	15
7.2 Data Reporting.....	16
Schedule 8: Interpretation of Terms	19

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 1: The Authorised Person and Activities

Purpose: This schedule places responsibility on the authorised person to ensure compliance with the conditions of this authorisation, and details the activities that can be carried out.

1.1 Duty of Authorised Person

1.1.1 The authorised person must ensure compliance with the conditions of this authorisation.

1.2 Authorised Activities

1.2.1 The authorised activities are:

- (a) the discharge to the water environment of fish excreta, uneaten food and other substances as listed in this permit; and
- (b) the abstraction of more than 10m³/day of seawater.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 2: Marine Pen Fish Farm Description

Purpose: This schedule limits the scale of the adverse impact from the activities by controlling the maximum weight of fish, fallow periods and the specific location and layout of the fish farm

2.1 Fish Species

2.1.1 Atlantic Salmon (*Salmo salar*) must only be farmed at the authorised place.

2.2 Maximum Weight of Fish

2.2.1 The maximum weight of Atlantic Salmon held on at the authorised place at any one time must not exceed 4069 tonnes.

2.3 Fallow Period and Restocking

2.3.1 There must be a minimum period of 42 consecutive days between every production cycle during which Atlantic Salmon must not be kept at the authorised place.

2.3.2 SEPA must be notified in writing within 14 days of the authorised place being stocked.

2.3.3 SEPA must be notified in writing within 14 days of the authorised place being fallowed.

2.3.4 The information required by 2.3.2 and 2.3.3 must be sent to aquaculture.notifications@sepa.org.uk.

2.4 Pen Configuration

2.4.1 The fish pens must be configured as set out in Table 1.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Table 1 Pen Configuration

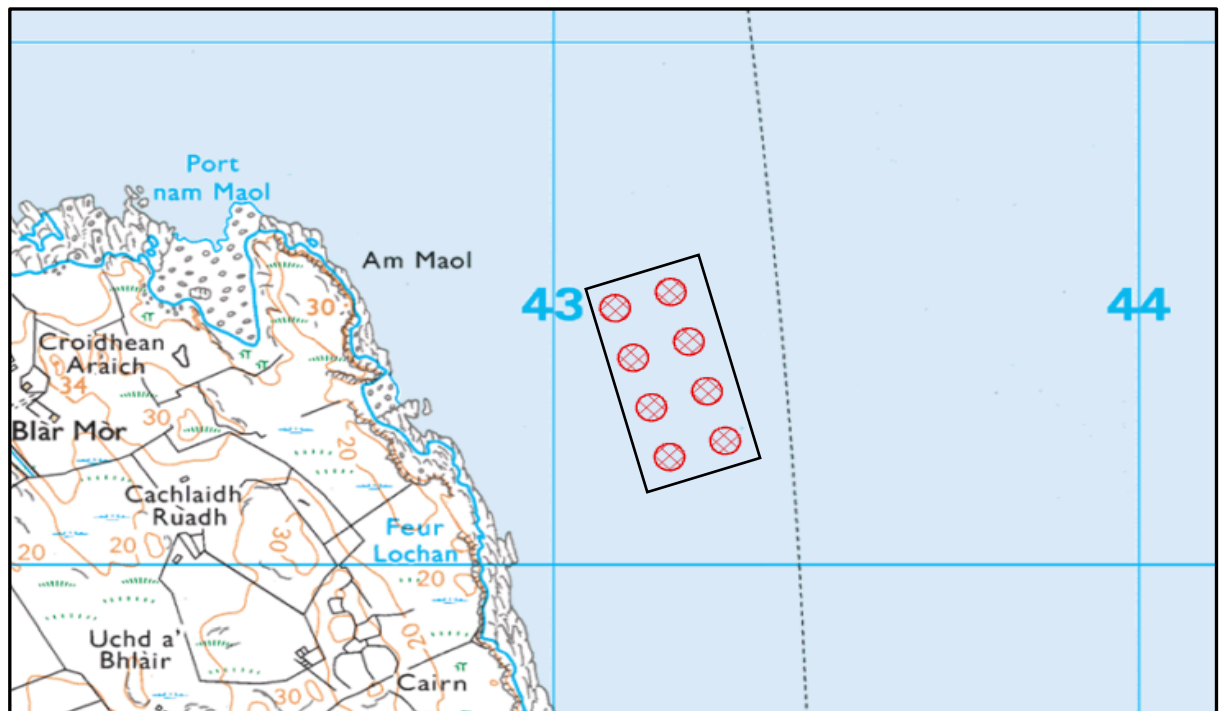
Number of pens	8
Circumference of pens	160m
Depth of nets	15m
Number of different pen groups	1
Number of pens in row 1	4
Number of pens in row 2	4

2.4.2 The authorised location of the fish pen group is within an area delineated in Figure 1 and bounded by the pen corner buoys located at the following National Grid References (NGRs):

1. NM 43044 80524 (NW)
2. NM 43234 80586 (NE)
3. NM 43168 80144 (SW)
4. NM 43358 80206 (SE)

2.4.3 The pen corner buoys must not be located at a distance greater than 50 metres in any direction from the NGRs listed in 2.4.2.

Figure 1 Fish Pen Location



Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 3: Permitted Medicines and Substances

Purpose: This schedule limits the risk to the water environment from the discharge of fish medicines and requires the authorised person to use the water environment efficiently by taking reasonable steps to minimise those discharges.

3.1 Medicine Discharge Minimisation

3.1.1 All reasonable steps must be taken to minimise the discharge of medicines.

3.2 Medicines and Permitted Substances

3.2.1 Only those medicines and other substances specifically authorised in this Permit may be discharged to the water environment.

3.3 Bath Medicinal Treatments

3.3.1 The medicines in Table 2 must only be discharged following treatment of fish within an enclosure fully separated from the water environment or following treatment of fish within a vessel.

Table 2 Permitted Medicines - Bath

Medicine name	Active ingredient
Salmosan, Salmosan Vet or Azasure	Azamethiphos
AMX or ALPHAMAX	Deltamethrin
Excis	Cypermethrin

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

- 3.3.2 The quantity of medicines in Table 2 used, whether in a pen or a vessel or a combination of both must not exceed:
- (a) 1020 grams of azamethiphos in any 24 hour period.
 - (b) 45 grams of deltamethrin in any 3 hour period.
 - (c) 0.45 grams of cypermethrin in any 3 hour period.
- 3.3.3 During any treatment:
- (a) the medicines in Table 2 must not be combined in either a pen or vessel;
 - (b) in-feed medicines and the medicines in Table 2 must not be used simultaneously in the same pen; and
 - (c) the medicines in Table 2 must not be combined with any other substance or compound unless the substance or compound is included as a category in Table 4.
- 3.3.4 When carrying out treatments in a pen, the enclosure in which fish are treated with the medicines in Table 2 must be reduced by a minimum of 70% of the full pen volume.
- 3.3.5 Discharges of medicines from a vessel must only be made whilst the vessel is moored to the fish pens or maintaining position immediately adjacent to the fish pens.

3.4 In-feed Medicinal Treatments

Table 3 Permitted Medicines – in-feed

Medicine name	Active ingredient
Slice or Quinafish	Emamectin benzoate

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

- 3.4.1 Any treatment with the medicines in Table 3 must be carried out over a minimum 7-day period.
- 3.4.2 Subject to 3.4.3, the total amount of the active ingredient in Table 3 used in any treatment must not exceed an amount equivalent to treating the Atlantic Salmon at a rate of 60 micrograms per kilogram of fish per day over a 7 day period.
- 3.4.3 Any discharge of the active ingredient in Table 3 must not exceed the maximum environmental quantity of 801.15 grams.

3.5 Permitted Substances

- 3.5.1 Substances listed as categories in Table 4 must only be discharged subject to the corresponding limits in Table 4.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Table 4 Permitted Substances

Category	Limits
Anaesthetics	<p>Prior to discharge, anaesthetics must be diluted to an appropriate working strength.</p> <p>Where the quantity of dilute anaesthetics is greater than 150 litres, it must be discharged over a minimum period of 15 minutes.</p>
Antifoulants	<p>Anti-foulants must only be used for the purposes of protecting fish farm infrastructure and equipment from excessive growth of marine flora and fauna.</p> <p>Discharge of anti-foulants to the water environment must only be as a result of leaching or erosion from previously treated surfaces.</p> <p>Removal of antifoulants must not be carried out at the authorised place.</p> <p>Application of antifoulants must not be carried out at the authorised place.</p>
Anti-microbials	<p>Anti-microbials must only be discharged to the water environment following treatment of fish with an in-feed formulation of the medicine.</p>
Anti-parasitics	<p>Must only contain hydrogen peroxide as the active ingredient.</p> <p>Must only be discharged following treatment of fish within an enclosure fully separated from the water environment or following treatment of fish within a vessel.</p> <p>When carrying out treatments in a pen, the enclosure in which fish are treated must be reduced by a minimum of 70% of the full pen volume.</p>
Detergents	<p>Discharge of detergents to the water environment must only be as a result of wash-off from treated surfaces.</p>
Disinfectants	<p>Discharge of disinfectants to the water environment must only be as a result of wash-off from treated surfaces.</p>
Lubricants of fish contact surfaces	<p>Must only contain tetrasodium EDTA as the active ingredient.</p> <p>Prior to discharge, products containing tetrasodium EDTA must be diluted to 0.2mg/l.</p>

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

3.6 Notification of Medicine Use

3.6.1 When, in the opinion of a veterinary surgeon, fish require to be treated with any medicine in Table 2 in less than 48 hours, SEPA must be given the information in Table 5 no less than 24 hours before any such treatment is carried out. In all other circumstances, SEPA must be given the information required in Table 5 no less than 48 hours before the use of any medicine in Table 3.

Table 5 Bath Medicine Notifications

Medicine type	Information required
Bath medicines	Name of medicine to be used
	Proposed start date of treatment

3.6.2 SEPA must be given the information required in Table 6 no less than 7 days before using any medicine in Table 3.

Table 6 In-Feed Medicine Notifications

Medicine type	Information required
In-feed medicines	Biomass at start of treatment (t)
	Biomass at end of treatment (t)
	Quantity of medicine to be used (kg)
	Quantity of active ingredient to be used (g)
	Proposed start and end date of treatment

3.6.3 The information required by 3.6.1 and 3.6.2 must be sent to aquaculture.notifications@sepa.org.uk.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 4: Seabed Standards

Purpose: This schedule details the minimum environmental standards that must be met in order to protect the flora and fauna within the seabed.

4.1 Biological Seabed Standards

- 4.1.1 The level of enrichment of the seabed immediately adjacent to the outer edge of any pen must not result in either:
- (a) fewer than 2 species of re-worker polychaete worms per square metre; or
 - (b) fewer than 1,000 individual re-worker polychaete worms per square metre.
- 4.1.2 In assessing compliance with 4.1.1, the results for a particular location may be disregarded if:
- (a) the seabed has been sampled at 4 or more locations immediately adjacent to the outer edge of any pens during the same monitoring period; and
 - (b) only one of the sampled locations does not meet the standard in 4.1.1.
- 4.1.3 The seabed around the fish farm at the boundary of an area of 177,100.8 m² (the “mixing zone”) must meet as a minimum an Ecological Quality Ratio (EQR) of 0.64 IQI (Infaunal Quality Index) at any time.

4.2 Chemical Seabed Standards

- 4.2.1 Emamectin benzoate concentrations must not exceed 763ng/kg (wet weight) in the seabed at the location specified in 5.3.2.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 5: Environmental Monitoring

Purpose: This schedule requires the authorised person to carry out environmental monitoring in line with SEPA guidance.

5.1 Environmental Monitoring Plan

5.1.1 Monitoring to assess the standards in 4.1.1, 4.1.3 and 4.2.1 must be carried out in accordance with:

- (a) The Environmental Monitoring Plan (EMP) 'Marine Pen Fish Farm, Muck, CAR/L/1109999', Version 2, dated 03/08/2022.
- (b) Measurement Assurance and Certification Scotland, Performance standard MACS-FFA-PS-01, Finfish Aquaculture Sector, Sampling of soft-substrate, version 1 dated March 2022.
- (c) Measurement Assurance and Certification Scotland, Performance standard MACS-FFA-PS-02 Finfish Aquaculture Sector, Physical and chemical testing, version 1, dated March 2022.
- (d) Measurement Assurance and Certification Scotland, Performance standard MACS-FFA-PS-03 Finfish Aquaculture Sector, Biological testing, version 1, dated March 2022.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

5.2 Biological Sampling Period

5.2.1 During each production cycle, sampling to assess the standards in 4.1.1, 4.1.3 and 4.2.1 must be carried out within a 70 day period beginning 35 days before the weight of fish is reduced to 75% of final peak biomass.

5.3 Chemical Sampling Period and Locations

5.3.1 During each production cycle, sampling to assess the standard in 4.2.1 must be carried out in the period between 80 & 169 days after:

- (a) the last use of in-feed medicine in each production cycle, or;
- (b) the date on which the authorised place is stocked with fish which have been treated with an in-feed medicine,

whichever is the later.

5.3.2 Samples collected in accordance with 5.3.1 must be collected 100m from the outer edge of the NE pen on bearing 342 degrees.

5.4 Notification of Monitoring

5.4.1 SEPA must be notified by email at aquaculture.notifications@sepa.org.uk no less than 14 days before sampling in accordance with 5.2.1 and 5.3.1 is undertaken.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 6: Environmental Events

Purpose: This schedule requires the cessation, prevention and reporting of any potentially polluting event that may arise from the authorised activities.

6.1 Notification of SEPA

6.1.1 SEPA must be notified via its pollution hotline contact telephone number as soon as reasonably practicable, and in any case within 24 hours of identification of an event, of any of the following:

- (a) an event that has caused or could cause adverse impact to the environment or harm to human health;
- (b) an event that results, or could result, in an emission to the environment that is not authorised by this permit; and
- (c) an event that has caused a breach of a condition of this authorisation.

In this condition, the meaning of 'event' is as defined in the Interpretation of Terms in Schedule 8 of this authorisation.

6.2 Management of the Event

6.2.1 All measures that are reasonably practicable must be taken to stop an event, as described in 6.1.1, and to minimise its effect on the environment.

6.3 Reporting of the Event

6.3.1 Within 14 days of an event as described in 6.1.1, a report must be submitted to SEPA detailing:

- (a) the reason(s) for the event;
- (b) the action(s) taken to stop the event and minimise the impacts; and
- (c) the action(s) taken to prevent the event from recurring.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 7: Record Keeping and Data Submission

Purpose: This schedule requires the authorised person to keep records of specific activities carried out on site and to provide SEPA with specified information at regular intervals, or upon request.

7.1 Data Recording

7.1.1 All information recorded, kept, or submitted to SEPA in accordance with a condition of this Permit must be:

- (a) true and accurate;
- (b) held for a minimum period of 6 years, and;
- (c) provided to SEPA upon request.

7.1.2 Records must be kept of the following:

- (a) all medicine use notifications;
- (b) quantities of medicine used during each medicinal treatment (g or l);
- (c) weight of Atlantic Salmon at the end of each medicinal treatment (t);
- (d) names and total amounts of each anaesthetic used each month (l);
- (e) names and total amounts of each detergent used each month (l);
- (f) names and total amounts of each disinfectant used each month (l), and;
- (g) total weight of Atlantic Salmon harvested per month (t).

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

7.2 Data Reporting

7.2.1 The information specified in Table 7 must be submitted on a quarterly basis in the 'SEPA Marine Fish Farm Data Return' Excel spreadsheet, supplied by SEPA, to ffbiomass@sepa.org.uk no later than the relevant submission deadline in Table 8 for every calendar year during which the site is operational.

Table 7 Data Reporting Requirements

Requirement number	Information to be Submitted
1	Maximum weight of Atlantic Salmon held on site during each month (t)
2	Total amount of feed used per month (kg)
3	Total Salmosan and/or Salmosan Vet and/or Azasure used in each treatment (g)
4	Total AMX and/or ALPHAMAX used in each treatment (l)
5	Total Slice and/or Quinafish used in each treatment (g)
6	Total azamethiphos used in each treatment (g)
7	Total deltamethrin used in each treatment (g)
8	Total emamectin benzoate used in each treatment (g)
9	Total Excis used in each treatment (l)
10	Total cypermethrin used in each treatment (g)
11	Daily start and end times of each bath medicinal treatment
12	Start and finish dates of each medicinal treatment
13	Dates in each medicinal treatment on which medicines were used
14	Name of vessel used, where applicable
15	The names and total amounts of each anti-parasitic from Table 4 used each month (kg)
16	The names and total amounts of each anti-microbial from Table 4 used each month (g)

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

17	The name of any substance listed in Table 4 used in combination with any bath medicinal treatment.
18	The number of pens treated in each bath medicinal treatment
19	Total weight of mortalities of Atlantic Salmon each month (kg)

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Table 8 Data Reporting Submission Deadline

Quarter	Reporting Period	Submission Deadline
1	1 January – 31 March	28 April
2	1 April – 30 June	28 July
3	1 July – 30 September	28 October
4	1 October – 31 December	28 January

- 7.2.2 Results from the analysis of all samples collected in accordance with 5.1.1 must be submitted to aquaculture.monitoring@sepa.org.uk in the Environmental Monitoring Survey Results Template Excel spreadsheet no later than 16 weeks from the final date of each sampling period, as described in 5.2.1.
- 7.2.3 Within 4 weeks of the end of each production cycle a description of each of the steps taken in accordance with 3.1.1 and the dates and/or time period(s) over which they were implemented must be sent to aquaculture.notifications@sepa.org.uk.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Schedule 8: Interpretation of Terms

For the purposes of this authorisation, and unless the context requires otherwise, the following definitions apply.

Term	Definition
authorisation	the water use licence granted by SEPA under Regulation 15 of The Water Environment (Controlled Activities) (Scotland) Regulations 2011 with licence number CAR/L/1109999
authorised activities	the activities which may be carried on under this authorisation, as detailed in Schedule 1 Any reference to "the controlled activity or activities" in the authorisation is a reference to the authorised activity or activities
authorised person	the holder of this authorisation, and person responsible for securing compliance with the conditions of it Any reference to "the responsible person" in the authorisation is a reference to the authorised person
authorised place	the geographic location or locations at which the authorised activities may be carried on.
biomass	the total weight of fish, in tonnes, held on site at any one time.
controlled activity	an activity to which the regulations apply, in accordance with regulation 3(1) of the Regulations
environmental harm	(a) Harm to the health of human beings or other living organisms, (b) Harm to the quality of the water environment, including: (i) harm to the quality of the water environment taken as a whole (ii) other impairment of, or interference with, the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems, (c) offence to the senses of human beings, (d) damage to property, or (e) impairment of, or any interference with, amenities or other legitimate uses of the water environment.

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Term	Definition
event	(a) any accident which has caused or could cause environmental harm; or (b) any malfunction, breakdown or failure of plant, infrastructure or techniques which has caused or could cause environmental harm; or (c) force majeure or action taken to save human life or limb
final peak biomass	the period during which the total weight of fish held on site is at peak biomass for the last time before harvesting in each production cycle
IQI (Infaunal Quality Index)	a multi-metric index used to describe changes in benthic invertebrate community in response to anthropogenic pressures.
maximum environmental quantity	the maximum residual quantity of Emamectin Benzoate in the environment at any one time taking into account excretion and decay of all previous treatments which if complied with will meet the environmental quantity standard at the edge of the mixing zone.
mixing zone	the area of seabed immediately under and extending outwards from a fish farm in which the discharge from the fish farm is likely to have an adverse impact on the environment.
peak biomass	the maximum weight of fish, in tonnes, held on site during a single production cycle.
pen	an enclosed cage, net or other structure in which fish are kept.
permit	an authorisation under regulation 8 of the Water Environment (Controlled Activities) (Scotland) Regulations 2011.
production cycle	any period of time during which fish are on-grown in pens at sea until they are removed for transfer and/or slaughter.
SEPA Officer	any person who is authorised by SEPA under regulation 31(4) of the Regulations to exercise the powers specified in Part 1 of Schedule 6 of the Regulations for the purposes specified in Regulation 31(5) of the Regulations.
SEPA	Scottish Environment Protection Agency.
the water environment	all surface water, groundwater and wetlands
vessel	any ship, boat, craft or other vehicle which is used to carry out sea lice medicine treatments

Authorisation Number: CAR/L/1109999

Variation Number: VAR01

Term	Definition
weight of fish	the weight of fish including stomach contents and body fluids. This shall not be after any period of starvation.

Except where specified otherwise, any reference to an enactment or statutory instrument includes a reference to it as amended (whether before or after the date of the authorisation) and to any other enactment, which may after the date of the authorisation replace or amend it.