Case No: 2021-0355 Date of visit: 23/09/2021

Time spent on site: 6.5 hours Main Inspector: [redacted]

Site No: FS1288 Site Name: Etive 6
Business No: FB0456 Business Name: Dawnfresh Farming Ltd

Case Types: 1 ESC 2 CNA 3 DIA 4 5 6

Water Temp (°C): 14.4 Thermometer No: T172 FHI 045 completed

Observations: Region: ST Water type: S CoGP MA M-36

Dead/weak/abnormally behaving fish present?	Y	If yes, see additional information/clinical score sheet.
Clinical signs of disease observed?	Y	If yes, see additional information/clinical score sheet.
Gross pathology observed?	Y	If yes, see additional information/clinical score sheet.
Diagnostic samples taken?	Y	

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Remote inspection undertaken by [redacted], observed by [redacted] on 16/09/2021. Physical inspection undertaken by [redacted], observed by [redacted].
Input of fish next week. 195,000 at average weight of 200g.
Largest fish (everything over 3kg) on site being emergency harvested at the time of inspection and over the next 3-4 weeks.
Usually harvest fish at 4.5kg but having to harvest early due to pre-empting lice issues.
Reportedly a substantial lice burden. Just Leps, very few Caligus on site.
Blair Mhor processing factory has had to close down due to COVID which hindered efforts to remove fish from area.

Some evidence of gill issues consistent with a plankton bloom. Pharmaq was the company who took the samples and reported on 16/08/2021. Site staff usually take water samples and check themselves to look for plankton but have been unable to due to staff numbers. This staffing issue appears to be long term issue due to poor quality of staff joining the company.
Larger fish are experiencing a higher mortality rate.
New "Skamik 1.5" lice cleaning system used on site. The system uses brushes and jets of water to remove lice. It was used on Skye (Organic Sea Harvest) before using in Loch Etive and reports were very good. They used it on site at Etive and lice clearance was very good and mortalities were low. Following the treatment lice numbers rose sharply on site. It is thought that there was a leak in the lice collection system that allowed lice to be discharged back into the sea, however, this was not confirmed by Skamik team

Escape: Pen 8 (S8) net lifted before treating. Alphamax bath treatment was about to be used but was aborted as the fish looked distressed during the crowd. Divers called in to check for morts after the crowding and they spotted a hole in the net, this was immediately repaired using cable ties. The hole was approximately 2m x 0.5m (no shape reported), hole 2-3m below base line. Nets are about 17m deep. Net raised by 7m before the treatment. Well boat on site on Monday following remote inspection to count fish and final notification will be sent once this has been completed. Site staff looking up and down Loch looking for escaped RTR. Some RTR caught in River Awe, approximately 40 fish caught. [redacted] has been in contact with the company about the catches. The site staff are currently in the process of installing seal pro nets on Etive 6. All nets in Loch will be delivered to site by the end of the financial year. They will be installed as they arrive and when staff have time. About 5 years ago there were no seal problems on site but recently there have been more seals observed close to site. Two Ortec systems being used in Loch Etive, on Etive 4 and Etive 6. Been in use for approx. two years, and there was a marked reduction in seal numbers and morts caused by seals when it was first installed, but the affect has reportedly reduced over the years. Many more seals in area being observed by staff. Etive 6 is closest to Connel bridge where most seal activity is.

Increase mortality on Etive 4 and Etive 6. Mortality on other sites in the Loch has been slightly higher than average. Divers used to take fish out but dive team was out of action for 10 days due to COVID. Boat breakdowns also hindered the removal effort. Issues with getting dead fish out of the cages and off the shore base. Biggest issue was getting fish out of the cages. Divers always used. They had issues getting enough skips to shorebase to shift the fish. Billy Bowie and Gogar used to remove skips. Most of pick-ups were Billy Bowie. Low bridge that has to be passed under to get to the shorebase so Billy Bowie can only use small skips to remove waste or they won't fit under the bridge. Tide is also an issue and they can't use uplifts in strong tides. Incinerator has been removed as it kept breaking down. Hoping to get a new one soon. Mass mortality SOP submitted via email. Reportedly followed during the mortality event. Was last reviewed at end of August this year by health manager since the increase in mortality in the area. Actual procedures have not been changed, just the wording of some sections. In the future the Skamik will not be used again as it was not tried and tested. They will only use tried and tested methods to reduce lice numbers. Hoping to use a Ferguson boat in the future to remove fish directly from cages and place the removed fish onto skips on the deck of the boat. These could then be taken away by boat.
Observed daily cage inspection record kept on barge
Whole of Loch Etive not fallowed synchronously. Etive 3, 4 and 6 being emergency harvested at the time of the inspection.
Emergency harvested conducted as the site manager is pre-empting issues from the lice.
Final escape notification has been changed since the initial notification. On the initial notification it was though that the hole observed by the divers was caused by a seal. However, the reason for the hole being created has been revised and now the dive team think the hole was caused by a down weight being dropped too quickly by an inexperienced member of staff. Currently there are many inexperienced staff on site.

Case No:	2021-0355	Site No:	FS1288
Date of Visit:	23/09/2021	Inspector(s):	[redacted]

Registration/Authorisation Details

1. Business/site details summary checked by site representative?	Y
2. Changes made to details?	N

Site Details (include cleaner fish for all sections)

Total No facilities		10	Facilities stocked		7	No facilities inspected		10
Species	RTR	RTR						
Age group	2020	2019						
No Fish	277,000	126,000						
Mean Fish Wt	1kg	3.2kg						
Next Fallow Date (Site)		Mar 2022	Next Input Date (Site)			Next week		
Recent (last 4 wks) disease problems?			Y	Any escapes (since last visit)?				Y
If yes, detail:	Gill issues, see additional comments							

Movement Records

1. Movement records available for inspection?	Y
2. Date of last inspection:	15/06/2021
3. Are records complete and correctly entered?	Y
4. Are movement records available for dead fish and waste?	Y
5. Are records complete and correctly entered?	Y
6. Are health certificates for introductions (outwith GB) available?	N/A

Transport Records

1. Are any movements carried out by (or on behalf) of the business (not using a STB)?	
If yes, is there a system in place for maintenance of transportation records?	

Mortality Records

1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Whole fish - Secanim, Widnes
If other detail:	
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	wk 37: 916 fish, wk 36: 3,972, wk 35: 517, wk 34: 2,660 fish
5. Evidence of recent increased/atypical mortalities?	Y
If yes, facility nos/no mortality per facility/no stock per facility/reason:	
See additional information	
6. Any other peaks in mortality during period checked?	Y
If yes, detail:	Week 33 mortality was high over the site at just over 10,000 fish dead caused by lice and treatments combined
7. Have increased (unexplained) mortalities been reported to vet or FHI?	N/A
If yes, detail action:	
8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.	N/A

Treatments and Medicines Records

1. Recent treatments (see comment)?	N/A
If yes, detail:	
If other, detail:	
2. Medicines records available for inspection?	N/A
3. Are records complete and correctly entered?	
4. Are fish in a withdrawal period?	N/A
5. If yes, what treatment(s)?	
If other, detail:	
6. Are medicines stored appropriately?	N/A

Biosecurity Records

1. Biosecurity records available for inspection?	
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any *increased* (*unexplained)* mortality at the site been included?	
4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease is detected been included and *how* and *when* that will be notified to Scottish Ministers?	
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	
6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)?	
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	
8. Have the biosecurity procedures been adequately implemented on site?	
If no, detail:	

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	Y
2. If yes, are results available for inspection?	Y
3. Any significant results?	Y
If yes, detail (if not detailed under recent disease problems).	Pathology consistent with gill issues possibly

Records checked between:	15/06/2021 - 16/09/2021

Case no:	2021-0355	Site No:	FS1288	Date of visit/ Sampling:	23/09/2021	23/(							
Priority samples:	VI		BA		PA		MG		HI				
Time sampling starts/ends:	13:00:00	14:15:00	Inspector:		VMD No.	0							
Environmental conditions:	1	Indoors	2		3		4		5				
Summary samples	HIST	Y	BA	Y	MG	Y	VI		PA		Total Samples		

Add Fish/Pools - click

	Pool/Fish No	F1	F2	F3	F4	F5	P1						
	Fish nos	1	2	3	4	5	1-5						
	Pool Group	P1	P1	P1	P1	P1							
Stock Details	Species	RTR	RTR	RTR	RTR	RTR							
	Average weight	3.0000	3.0000	1.0000	1.0000	1.0000							
	Sex	N/A	N/A	N/A	N/A	N/A							
	Water Type	SW	SW	SW	SW	SW							
	Stock Origin	Rocks Lodge	Rocks Lodge	Selcoth	Selcoth	Selcoth							
	Facility No	S9	S9	S6	S6	S6							

09/2021 Additional Sample Information:

No heart in F3. This fish had signs of a bird attack and a hole through the muscle wall to the visceral cavity. The heart may have escaped through this hole during transport from the cages to the sampling area.

6 Total Tests assigned 2

Case no: 2021-0355 Site No: FS1288 Method of killing: Percussive

Date of visit: 23/09/2021 Inspector(s): [redacted] Sheet Relevant: Y

S for strong presence: **M** for medium presence: **W** for weak presence

Fish Number		1	2	3	4	5					
Time sampled after death (if > 45 minutes)											
External Signs											
Behaviour	Moribund	S	S	S	S	S					
	Lethargic	M	M	M	M	M					
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic			W	W	W					
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract	S		M							
	Haemorrhagic										
Gills	Pale										
	Zoned										
	Necrotic										
Lesions	Flank										
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers	30	20	3	5	6					
Internal Signs											
Ascites	Clear										
	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)										
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve										
	Lack of fat			M	M	M					
Spleen	Enlarged										
	Granulomas										
Gut	No food present	M	M	M	M	M					
	Yellow pseudo-faeces	S			M						
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
	Fluid filled										
Kidney	Swollen										
	Grey	W	W								
	Granular										
	Liquefied										
General	Parasites present										
	Anaemia										

Case no: 2021-0355

Date of visit: 23/09/2021

S for strong presence: **M** for medium presence: **W** for w

Fish Number											
Time sampled after death (if > 45 minutes)											
External Signs											
Behaviour	Moribund										
	Lethargic										
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic										
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale										
	Zoned										
	Necrotic										
Lesions	Flank										
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers										
Internal Signs											
Ascites	Clear										
	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)										
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve										
	Lack of fat										
Spleen	Enlarged										
	Granulomas										
Gut	No food present										
	Yellow pseudo-faeces										
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
	Fluid filled										
Kidney	Swollen										
	Grey										
	Granular										
	Liquefied										
General	Parasites present										
	Anaemia										

Additional comments:

No heart present in F3

Case No: 2021-0355 Site No: FS1288

Date of visit: 23/09/2021 Inspector(s): ASM

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
ENHANCED CONTAINMENT INSPECTION (SEAWATER)				
a. Enquiry relating to I) escape incidents and ii) contingency procedures				
1.1. Have escape incidents or events[1] been experienced on or in the vicinity of the site since the last MSS inspection?		Y		
If yes answer 1.2-1.8:				
1.2. Have appropriate reports been made to Scottish Government within 24 hours of discovery?	High	Y	AAAH Regs[4] 31D,E	
1.3. Have these been reported to the SSPO[2] and, where in existence, the local DSFB and fisheries trust?	Medium	Y	CoGP 4.4.37, 5.4.17	[redacted] is unaware of the event being reported to SSPO. Reported to DSFB.
1.4. Were methods (if any) used to recover escapees?		N		Nets were used in a previous escape on Loch Etive and the attempt to recapture fish did not go well due to health and safety issues.
If yes give detail				
1.5 Was the decision to attempt to recapture and the method employed agreed with the local DSFB and FT	Low	N/A	CoGP 4.4.38, 5.4.18	
1.6. Was permission sought from Marine Scotland prior to recapture?	Medium	N/A	CoGP 4.4.38, 5.4.18	
1.7 Were the gill nets deployed in accordance with the permission issued by Marine Scotland?	Low	N/A	CoGP 4.4.38, 5.4.18	
1.8. In light of the escape event, has appropriate action been taken to prevent and minimise the risk of further escapes?	High	Y		Hole immediately repaired by dive team. To replace existing nets with seal pro nets. This process of installing new nets has started already. Fish in damaged net will be removed and placed into a seal pro net on 20/09/2021.
1.9. Is there a site specific contingency plan in response to failures in containment, aimed at preventing escapes and recovering escaped fish?	High	Y	SSI, 2,9	
b(I). Inspection of records relating to equipment, facilities and the site				
General records 2.1 With regard to each facility, net, screen and mooring at each site, a record should be maintained of:-			CoGP: 4.4.9, 4.4.14, SSI 2,1	
		Facilities	Moorings	Nets

Point of compliance	Risk level	Satisfactory?	Requirement		Comments and advice given or action taken if necessary
a) The name of the manufacturer	Low	Y	Y	Y	Cages manufactured and supplied by Fusion. Moorings manufactured and supplied by Gael Force. Morenot manufacture
b) Any special adaptations	Low	Y	Y	Y	
c) The name of the supplier	Low	Y	Y	Y	
d) The date of purchase	Low	Y	Y	Y	
e) Each inspection including					
I) the name of the person conducting the inspection	Low	Y	Y	Y	Annual ROV inspection records checked for moorings. [redacted] hold this info and will need to be observed during physical inspection. Dive records to be observed during physical inspection.
ii) the date of each inspection	Medium	Y	Y	Y	Dive reports observed during physical inspection.
iii) the place of each inspection	Low	Y	Y	Y	
iv) the outcome of each inspection	High	Y	Y	Y	
f) the date and result of each repair, equipment test and antifouling treatment carried out	High			Y	Invoices will be kept of facility repair and should be reviewed during physical inspection. [redacted] hold details of mooring repairs. Knox database hold details of net tests repairs etc. Nets sent to Knox at the end of each cycle.
2.2. In relation to each net a record of:					
I) The mesh size	Medium	Y	SSI, 2,2		
ii) The code which appears on the identification tag	Medium	Y			
iii) The place of use, storage and disposal	Medium	Y			Knox dispose of any nets and they will have details of disposal location.
iv) The depth of water between the bottom of the net and the seabed as measured at the mean low water spring	Low	Y			
2.3. In relation to each facility a record of:					
I) The date of construction	Low	N	SSI, 2,3		Date on certificate of conformity, but the date of construction was not recorded.
ii) The material used in construction	Low	Y			
iii) Its dimensions	Low	Y			
2.4. In relation to each mooring a record of-			SSI, 2,4		
I) The date of installation	Low	Y			Delivery date and certification date
ii) The design and weight of the anchors	Low	Y			Design not recorded but photos are available for each one
iii) The length of the mooring ropes or chains	Low	Y			
2.5. A record of any navigation markers deployed at each site at which fish are farmed	Low	Y	SSI, 2,5		
2.6 In respect of sites at which fish are farmed in inland waters[3]			SSI, 2,6		

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
a) The type, method of and date of construction of any flood prevention or flood defence measures in place	Low	N/A		
b) The date of and results of any tests conducted on any such measures	Low	N/A		
c) The date of any incident where the site was flood	Low	N/A		
d) The water course height during any such flood incident	Low	N/A		
2.7 A record of-			SSI, 2,7	
a) The date of any severe weather event which caused damage to any facility, net or mooring	Medium	N/A	SSI, 2,11 (a)	No severe weather events. Weather is recorded in the site diary.
b) Any action taken to rectify any such damage	High	N/A	SSI, 2,11 (b)	
Pen and mooring systems				
2.8 Are there documented procedures maintained regarding the selection and installation of pens and moorings?	High	Y	CoGP 4.4.8, 4.4.13	Hydrographic data taken by an external party and recorded.
2.9 Can the site demonstrate evidence that the design specification of pens and moorings are suitable for purpose and correctly installed?	High	Y	CoGP 4.4.9, 4.4.14	
2.10 Do pen systems meet the manufacturers guidelines?	High	Y	CoGP 4.4.10	
2.11 Are pen systems inspected and approved by suitably qualified / experienced person(s)?	High	Y	CoGP 4.4.11	Approx. 5 members of staff have undertaken an SVQ in Aquaculture and containment is covered in that qualification. All members of staff have signed an attestation stating that they have read and understood all the containment SOPs and RAs. However, it is suspected that the most recent escape event was due to staff inexperience. Dawnfresh has developed a containment training module and was looking into getting staff members to go through the course. However, that work at trying to begin training of staff fell by the way side when COVID-19 become an issue. [redacted] will reportedly look into getting this training module started in the near future. Training module observed during the physical inspection.
2.12 Is there evidence of the competence of personnel involved in the design, installation and maintenance of pen and mooring systems?	High	N	CoGP 4.4.12, 4.4.15	Certificate from Fusion attesting that the pens are maintained, and installed by suitably qualified personnel. Dawnfresh conduct own mooring maintenance and the inspection and maintenance is undertaken by experienced members of staff, some with over 20 years of experience.
2.13 Are pen and mooring components inspected with a) a documented SOP b) a documented inspection plan based on a risk assessment	High	Y	CoGP 4.4.16	SOP viewed.
2.14 Do all nets used on site meet industry standards?	High	Y	CoGP 4.4.17	

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
2.15 Can the site demonstrate an awareness of the minimum fish size in relation to net size	High	Y	CoGP 4.4.19	
2.16 Does the net design, quality and standard of manufacture take into account the conditions that are likely to be experienced on site and include adequate safety margins?	High	Y	CoGP 4.4.20	
2.17 Are nets treated with a UV inhibitor?	Low	Y	CoGP 4.4.21	
2.18 Are nets tested at a pre-determined frequency?	High	Y	CoGP 4.4.22	
2.19 Is the method of test procedure based upon the manufacturers advice?	High	Y	CoGP 4.4.22	Net testing done by Knox
2.20 Are frequent net inspections conducted to look for damage?	High	Y	CoGP 4.4.23	Divers in twice a week and inspections conducted daily from water surface.
2.21 Are net inspection records maintained?	High	Y	CoGP 4.4.23	Diver reports. Knox also hold details of net repairs.
2.22 Is the system by which nets are attached to the pen and weighted inspected frequently?	High	Y	CoGP 4.4.24	Daily checks by site staff cover this (available on barge). Weights removed from the water an inspected at the end of each cycle
2.23 Where damage to nets and/or associated fittings has occurred, or the potential for damage exists, has remedial action been taken?	High	Y	CoGP 4.4.25	Recorded on dive records
b(ii). Inspection of records relating to training				
3.1 Are training programmes and plans relevant to the various onsite activities documented?	High	Y	CoGP 7.1.8	
3.2 Is there a satisfactory record of all training and qualifications for each person working at the site in relation to any boat operations? (This excludes well boat operations)	High	Y	SSI 2,6,a	
3.5 With respect to any transfer of or handling of fish is there a record of all training of each person working on site in relation to containment and prevention of escape of fish, and recovery of escaped fish?	High	Y	SSI 2,7,a	All SOPs and Ras signed off by a member of staff when they have read through and understood each document. SVQ also covers containment in depth (course overview observed during physical inspection)
b(iii). Inspection of records relating to procedures and risk assessments				
4.1 Are procedures which could increase the risk of fish escaping considered to be carefully planned and supervised to minimise risk?	High	N	CoGP 4.4.29, 5.4.12	Most SOP's and risk assessment maintained in paper format and will be inspected during the physical inspection. Procedures such as SOPs and Ras being signed off in place but last escape could have been caused by human error that have possibly been averted with better supervision of inexperienced staff.

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
4.2 Before procedures are conducted on site, are the following in place:			CoGP 4.4.30, 5.4.13 SSI 2,7, b , SSI 2, 8, c	
a) a documented risk assessments	High	Y		
b) standard operating procedures	High	Y		
c) contingency plan	High	Y		
4.3 In relation to any boat operations at each site at which fish are farmed is there a record of				
-The type and size of each boat used for operations on the site	Low	Y	SSI 2,6,b	
- The type and size of any propeller guard fitted to each boat used on the site	Low	N	SSI 2,6,c	All large boats have prop guard fitted. Smaller boats are not fitted with a propeller guard and a risk assessment has been conducted detailing why.
4.4 Does the site suffer from regular or heavy predation?		Y		
4.5 Are there records of site specific risk assessments ascertaining the risk of predator attack?	Medium	Y	CoGP 4.4.26	
4.6 Are there risk assessments undertaken on a pre-determined frequency?	Low	Y	CoGP 4.4.26	
4.7 A record of any anti-predator measures undertaken at each site at which fish are farmed including:			SSI, 2,8,a	
The type and location of each net, fence and scarer deployed	Medium	Y		ADD on each pen.
- The use of lethal means by any person involved in operations on the site	Low	N	SSI, 2,8,b	No seals shot on site
4.8 Where predator nets are deployed is the advice of Annex 7 considered?	Low	Y	CoGP 4.4.27	Seal pro nets are installed on some nets and there are 7 new nets ready to be installed on site
c. Inspection of site and site equipment				
5.1 Are there any obvious containment issues on the site?	High	N		
5.2 Is the net mesh size considered to be capable of containing all fish sizes present on site?	High	Y	CoGP 4.4.18	

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
5.3 Do nets carry numbered ID tags?	Low	Y	SSI 2,2 ii	
Look at a percentage of nets on site - Does the net location meet the inventory?	Low	Y		Three cage number tags selected at random from the net inventory record. All tags matched the cage number allocated.
5.4 Are nets stored away from direct sunlight?	Low	Y	CoGP 4.4.21	
5.6 Are appropriate measures in place to mitigate predation on site? (Provide detail if necessary)		Y		Seal pro nets installed on site and reportedly adequately weighted
5.7 Are boat operations conducted in such a manner which prevents damage to nets and pens?	High	Y	CoGP 4.4.28	
5.8 Is there a requirement for navigation markers to be deployed?	Low	Y	MSA[5] 2010 P4, S21	
5.9 If yes, has this been done in accordance with the necessary requirements?	Low	Y	MS Marine licence	
5.10 If Yes to 5.8 is there a record of any navigation markers deployed?	Low	Y	SSI 2,5	
d. Inspection of site specific procedures				
6.1 Are pen nets examined for holes, tears or damage prior to and during the stocking, moving or crowding of fish?	High	Y	CoGP 4.4.31	Divers on site regularly. Site does have an ROV that can be used on site.
6.2 If helicopter transfer of fish is conducted are receiving pen(s) properly prepared:-			CoGP 4.4.32	
a) nets should be secure	High	N/A		
b) pens should be marked with buoys clearly visible from the air	High	N/A		
c) radio contact between farm staff and helicopter crew should be maintained or where this is not possible, pens receiving fish should be manned	High	N/A	CoGP 4.4.33	
Consideration should be given to all other site procedures being undertaken during the visit with respect to containment and the risk of fish farm escapes				

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
Additional actions	**Powers**			**Comments and advice given or action taken if necessary**
e) Collection of samples If necessary collect samples. Indicate if samples have been taken and detail what those samples are and the purpose of their collection	Power granted under the Act – section 5 (3) (a)			
h) Enforcement Notice. If an enforcement notice has been issued then maintain a copy / duplicate and record detail Guidance on completing the Enforcement Notice	Power granted under the Act – Section 6 (2)			

1 An 'escape event' can be defined as any circumstances on or in the vicinity of a fish farm which are believed to have caused an escape, or which may have given rise to a significant risk of an escape of fish.

2 FHI interpretation – Informing the SSPO is only a requirement where the site belongs to an Authorised Production Business which is signed up to the CoGP.

3 being waters which do not form part of the sea or any creek, bay or estuary or of any river as far as far as the tide flows

4 The Aquatic Animal Health (Scotland) Regulations 2009 (as amended)

5 The Marine Scotland Act 2010

Case No: 2021-0355 Date of visit: 23/09/2021

Site No: FS1288 Inspector: [redacted]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2nd Insp

Report Summary			
Case Type	Date	Insp	2nd Insp
ESC	06/10/2021	[redacted]	[redacted]

FARMED FISH MORTALITY EVENT – NOTIFICATION FORM

Business Name	Business No	Site Name	Site No	Start date:	End date: (if applicable)	Size of fish:	Average weight of affected population	Species:	Year class:	Mortality notification period: Weekly or 5 weekly?	Mortality rate recorded(%):	Explained /unexplained:	If explained, please supply details:	If unexplained, describe observations:	Total mortality during event (if available):	Additional information (e.g. action taken):
Dawnfresh Farming Ltd	FB0456	Etive 4	FS1112	13/08/2021		>750g	2.3Kg	Rainbow `	2021	Weekly	1.28% (5,008 number)	Explained	Hydrolicer and environmental gill irritation possibly phytoplankton		10,702 (2.59%)	Diver removal of mortalities

Date completed: **01/09/2021**

Once completed please e-mail to MS.fishhealth@gov.scot

See Guidance sheet for information on completion.
Insert additional lines as required.

FARMED FISH MORTALITY EVENT – NOTIFICATION FORM

Business Name	Business No	Site Name	Site No	Start date:	End date: (if applicable)	Size of fish:	Average weight of affected population	Species:	Year class:	Mortality notification period: Weekly or 5 weekly?	Mortality rate recorded(%):	Explained /unexplained:	If explained, please supply details:	If unexplained, describe observations:	Total mortality during event (if available):	Additional information (e.g. action taken):
Dawnfresh Farming Ltd	FB0456	Etive 6	FS1288	11/08/2021		>750g	1.7kg	Rainbow Trout	2019/2020	Weekly	1.15% (5,190 number)	Explained	Hydrolicer treatments		More expected wk 33	Follow up health visit 20/8/21

Date completed: **19/08/2021**

Once completed please e-mail to MS.fishhealth@gov.scot

See Guidance sheet for information on completion.
Insert additional lines as required.

FISH VET GROUP

Tel: 01463 717774
Fax: 01463 717775
Email: info@fishvet.co.uk

Please send samples to:
Fish Vet Group
22 Carsegate Road
Inverness IV3 8EX

LABORATORY SUBMISSION FORM

Company: DAWNFRESH FARMING	**Dawnfresh Sample ref:** DFF 105-21
Site: All DFF Etive Sites (Etive 2, 3, 4 & 6)	Freshwater **O** Seawater ● Processing **O**
Species: Rainbow Trout	

Sample Date: 20th August 2021
Submitted by: [redacted]
Contact telephone/email: [redacted]**@dawnfresh.co.uk**
Reporting to: [redacted]**@dawnfresh.co.uk**

Reason for Sampling
Disease Investigation **O** Disease Surveillance [e.g. PD] ● Other **O** (please specify) _____

Relevant History
Periods of low environmental oxygen across all sites at both 5m and 10m.

Mechanical treatment vessels both Hydrolicer and Skamik 1.5 system treating a variety of pens at all sites.

Tarpaulin treatments (both AMX and Azasure) carried out across a multitude of pens and across all sites.

Samples submitted

Histology	Bacteriology	Serology (bloods)	Other (please specify)
●	**O**	**O**	

Office Only

FVG Reference:		Received Date	
Histology	Bacteriology	Serology	Other (please specify)
Sample condition:			
Laboratory book **O**	Day book **O**	Initials _____	

Histology Copy **O** Bacteriology copy **O** Serology copy **O** Other **O** [Please specify _____]

Sample details:

No of fish sampled: 18

Stock Codes: S2- 205RLRVT, S1- 202RLRVT, S8- 204RLRVT, T2- 211SEAST, T7- 19NRLRVT, P8- 216SEAST, E3- 215SEAST

	FISH SAMPLE CODE					
Sample #	**Unit**	**Fish # or #'s**	**Sample type– histo bacti, viro, other**	**Pool – state organ**	**Fish weight/g**	**Comment**
1	S2	1	Histo	Full	~470g	Rockslodge. Recent AMX tarpaulin treatment.
2	S2	2	Histo	Full	~470g	Rockslodge. Recent AMX tarpaulin treatment.
3	S2	3	Histo	Full	~470g	Rockslodge. Recent AMX tarpaulin treatment.
4	S1	4	Histo	Full	~1.5kg	Rockslodge. No Hydrolicer treatment, Multiple Treatments e.g. Skamik, Tarpaulin, Wellboat.
5	S1	5	Histo	Full	~1.5kg	Rockslodge. No Hydrolicer treatment, Multiple Treatments e.g. Skamik, Tarpaulin, Wellboat.
6	S8	6	Histo	Full	~795g	Rockslodge. Recent move on to site from Etive 3, wellboat treatments and tarpaulin treatments.
7	S8	7	Histo	Full	~795g	Rockslodge. Recent move on to site from Etive 3, wellboat treatments and tarpaulin treatments.
8	E3	8	Histo	Full	~200g	Selcoth. Smalls of grade of Aquasearch, graded but no treatments.
9	E3	9	Histo	Full	~200g	Selcoth. Smalls of grade of Aquasearch, graded but no treatments.
10	E3	10	Histo	Full	~100g	Runt in pen. Selcoth. Smalls of grade of Aquasearch, graded but no treatments.
11	E3	11	Histo	Full	~200g	Selcoth. Smalls of grade of Aquasearch, graded but no treatments.
12	T2	12	Histo	Full	~1.3kg	Selcoth. No Mechanical treatments, wellboat and tarpaulin treatments. Moribund fish around outside of pen.
13	T7	13	Histo	Full	~3.3kg	Rockslodge, All mechanical treatments.
14	T7	14	Histo	Full	~3.3kg	Rockslodge, All mechanical treatments.
15	P8	15	Histo	Full	~370g	Selcoth. Previous high mortality (5000 fish).
16	P8	16	Histo	Full	~370g	Selcoth. Previous high mortality (5000 fish).
17	P8	17	Histo	Full	~370g	Selcoth. Previous high mortality (5000 fish).
18	P8	18	Histo	Full	~370g	Selcoth. Previous high mortality (5000 fish).
19						
20						

Samples submitted

Histology	Bacteriology	Serology (bloods)	Other (please specify)
●	o	o	

Pharmaq Analytiq
Tel: 01463 717774
Fax: 01463 717775
Email: analytiq.uk@zoetis.com

Please send samples to:
Pharmaq Analytiq
22 Carsegate Road
Inverness IV3 8EX

LABORATORY SUBMISSION FORM

Company: DAWNFRESH FARMING	**Dawnfresh Sample ref:** DFF111-21
Site: Loch Etive	Freshwater **O** Seawater **O** Processing **O**
Species: Rainbow Trout	

Sample Date: 27/8/21
Submitted by: <REDACTED>
Contact telephone/email: <REDACTED>
Reporting to: <REDACTED>

Reason for Sampling
Disease Investigation **O** Disease Surveillance [e.g. PD] **O** Other **O** (please specify) _____

Relevant History

- All fish sampled were moribund
- Please can heart tissue in RNALater be tested for SAV and PRV3

Samples submitted

Histology	Bacteriology	Serology (bloods)	Tissue in RNALater

Sample details:						
No of fish sampled: 26						
Stock Codes:						
	FISH SAMPLE CODE					
Sample #	**Unit**	**Fish # or #'s**	**Sample type– h**isto **b**acti, **v**iro, **o**ther	**P**ool – state organ	**Fish weight/g**	**Comment**
P2M	P2	Fish 8-11	tissue in RNALater	heart	3000	
E3M	E3	Fish 14-18	tissue in RNALater	heart	385	
S8M	S8	Fish 20-23	tissue in RNALater	heart	840	
Fish 1	P7	1	swab onto SWBA	kidney	3400	
Fish 2	P7	1	swab onto SWBA	kidney	3400	
Fish 3	P7	1	swab onto SWBA	kidney	3400	
Fish 4	P9	1	swab onto SWBA	kidney	2600	
Fish 5	P9	1	swab onto SWBA	kidney	2600	
Fish 6	P8	1	swab onto SWBA	kidney	380	
Fish 7	P8	1	swab onto SWBA	kidney	380	
Fish 8	P2	1	swab onto SWBA	kidney	3000	
Fish 9	P2	1	swab onto SWBA	kidney	3000	
Fish 10	P2	1	swab onto SWBA	kidney	3000	
Fish 11	P2	1	swab onto SWBA	kidney	3000	
Fish 12	E2	1	swab onto SWBA	kidney	200	
Fish 13	E4	1	swab onto SWBA	kidney	400	
Fish 14	E3	1	swab onto SWBA	kidney	385	
Fish 15	E3	1	swab onto SWBA	kidney	385	
Fish 16	E3	1	swab onto SWBA	kidney	385	
Fish 17	E3	1	swab onto SWBA	kidney	385	
Fish 18	E3	1	swab onto SWBA	kidney	385	
Fish 19	S1	1	swab onto SWBA	kidney	1600	
Fish 20	S8	1	swab onto SWBA	kidney	840	
Fish 21	S8	1	swab onto SWBA	kidney	840	
Fish 22	S8	1	swab onto SWBA	kidney	840	
Fish 23	S8	1	swab onto SWBA	kidney	840	
Fish 24	S10	1	swab onto SWBA	kidney	3400	
Fish 25	S10	1	swab onto SWBA	kidney	3400	
Fish 26	S10	1	swab onto SWBA	kidney	3400	

PURPOSE

To describe the actions to be taken in the event of a suspected mass mortality.

SCOPE

This procedure applies to Loch Etive Fish Farm only.

REFERENCES

DFF10036 – Dawnfresh Farming Health and Welfare Corrective Action Plan
PRO-019 – Notifiable Diseases Procedure
Code of Good Practice for Finfish Aquaculture

DEFINITIONS

DFF – Dawnfresh Farming
VHWP – Veterinary Health and Welfare Plan
Mass Mortality – Dramatic increase in mortality levels above background in a short period of time.

RESPONSIBILITIES

All members of staff have the responsibility to maintain and monitor the health and welfare of fish kept on site. In the occurrence of a suspected mass mortality the staff members will immediately report mortality levels to <REDCATED> - it is then their responsibility to inform the DFF Management Team of the event.

PROCEDURE

In the event of a suspected mass mortality, the procedure is as follows:

1. Immediately inform the <REDACTED>. They will then be responsible for notifying the <REDACTED>, <REDACTED> and the <REDACTED>.

2. Ascertain if there are live fish in the unit and whether there is opportunity for recovery.

3. If the cause of the mortality can be easily identified and fixed (without endangering Health and Safety), then this should be the priority.

4. Any moribund fish present which cannot reasonably be expected to recover must be humanely euthanised by the most appropriate method; either by overdose by suitable anaesthetic (as specified in VHWP) or via non-recoverable percussive blow to the head which renders the fish immediately insensible.

   Depending on the size and scale of moribund fish during a mass mortality event, the site manager or assistant manager will determine which method of euthanasia will be most be appropiate.

5. Investigate the cause of the event. This can be achieved through different options, depending on the situation:

   - Monitor oxygen level

- Check salinity of the water
- Record water temperature and visibility
- Take 3 samples for water quality analysis and freeze them
- Perform a phytoplankton check/count.
- Take 10 fish samples and freeze them
- Sample 5-10 fish for a comprehensive health check to be recorded on the VHWP then send away samples for histology as soon as possible. (N.B. For any mass mortality event 5 to 10 fish histology samples taken from moribund/affected fish is a minimum requirement in order, through reference to an independent veterinary report, to (a) prove to the competent authorities that no emerging/notifiable disease is present and to (b) provide evidence to insurers, if required, of the cause of mortality)

6. The <REDACTED> will discuss with the DFF Farm Management Team the best way of mortality recovery from the unit. Depending on the volume of the mortalities, they will either be incinerated on site or uplifted directly in fish skips by Billy Bowie.

7. All such mortalities must be accurately counted prior to disposal in order to maintain correct production figures on the site.

8. Fill in the DFF Health and Welfare Corrective Action Plan (DFF10036) and circulate to the Farm Management Team.

9. Implement the corrective actions described.

10. Continue monitoring in order to ensure that the corrective actions have been commensurate and effective.

11. If the mortality levels exceed the thresholds (see below) stated in the Code of Good for Finfish Aquaculture (3.5 Mortality Notification), and the Marine Scotland mortality reporting requirements (2016) the <REDACTED> must notify notify the <REDACTED> and the <REDACTED>. The <REDACTED> must then report these figures to Marine Scotland's Fish Health Inspectorate and to RSPCA Assured.

CoGP Mortality Notification Thresholds:

Site Ave. Weight (g) Max. 5-week rolling mortality (%)	***Max. weekly mortality (%)***	***Max. 5-week rolling mortality (%)***
Under 750 *750+*	*1.5* *1.0*	*6* *4*

N.B. If at any time during the above process, any person who is responsible for the fish or the investigation suspects the presence of a notifiable disease, they must immediately inform the competent authorities at Marine Scotland. See PRO-019.

Mortality Event Report

Mortality Event ID	MRT02315
Site Name:	Etive 6
Site No:	FS1288
Start date of mortality:	16/08/2021
Period of mortality:	Weekly
Percentage mortality:	2.37
Explained/unexplained:	Explained
Reason (if explained):	Hydrolicer treatments and low disolved oxygen
Business Name:	Dawnfresh Farming Ltd
Business Number:	FB0456
Species:	RTR
Water Type:	SW
Weight (site average):	>750g
Weight (affected population average):	1.7
Age:	2019/2020
Estimated number of fish lost:	10292
Additional information:	
MS action:	Continuation of mortality even that occured in wk 32, issues with staff and diver availability has resulted in a delay in removing the morts from the pens. Morts in wk 34 (reported up until 27/8/21) are 0.2% 828.

Mortality Event Report

Mortality Event ID	MRT02406
Site Name:	Etive 4
Site No:	FS1112
Start date of mortality:	19/09/2021
Period of mortality:	Weekly
Percentage mortality:	1.37
Explained/unexplained:	Explained
Reason (if explained):	Treatment and harvests following recent gill event. Some old pockets of decayed fish still being recovered as well after limited diver availability.
Business Name:	Dawnfresh Farming Ltd
Business Number:	FB0456
Species:	RTR
Water Type:	SW
Weight (site average):	>750g
Weight (affected population average):	2.3Kg
Age:	
Estimated number of fish lost:	4617
Additional information:	Health manager visited the site Monday 20/09 with company vet. Lice numbers are high but no signs of additional new disease.
MS action:	Contacted health manager. Partial harvest of the site began 20/09/2021. Cage T7 was completely emptied this week (29T) with 2 more cages expected to be harvested out in wk39 (total of 70T). Sea lice treatments are also being arranged, prioritising cages with highest lice loads. FHI visited neighbouring Etive 6 on 23/09. FHI to continue to monitor.

Mortality Event Report

Mortality Event ID	MRT02336
Site Name:	Etive 4
Site No:	FS1112
Start date of mortality:	16/08/2021
Period of mortality:	Weekly
Percentage mortality:	1.28
Explained/unexplained:	Explained
Reason (if explained):	Hydrolicer and environmental gill irritation and possibly phytoplankton
Business Name:	Dawnfresh Farming Ltd
Business Number:	FB0456
Species:	RTR
Water Type:	SW
Weight (site average):	>750g
Weight (affected population average):	2.3
Age:	
Estimated number of fish lost:	5008
Additional information:	Diver removal of mortalities. Total mortality at siteover weeks 10,702 (2.59%)
MS action:	Company heath rep concluded; “This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don’t suspect any new events. ...histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point. Although it doesn’t seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event.” FHI to pay a visit when in area W/B 20/9/21

Mortality Event Report

Mortality Event ID	MRT02337
Site Name:	Etive 4
Site No:	FS1112
Start date of mortality:	23/08/2021
Period of mortality:	Weekly
Percentage mortality:	3.37
Explained/unexplained:	Explained
Reason (if explained):	Hydrolicer and environmental gill irritation and possibly phytoplankton
Business Name:	Dawnfresh Farming Ltd
Business Number:	FB0456
Species:	RTR
Water Type:	SW
Weight (site average):	>750g
Weight (affected population average):	2.3
Age:	
Estimated number of fish lost:	12982
Additional information:	No ongoing excess mortality suspected. Diver removal of mortalities ongoing. Total mortality at site over weeks 25,303 (6.12%)
MS action:	Company heath rep concluded; “This is all related to removal of the mortalities incurred by the hydrolicer event between 11 and 13/8/21 and we don’t suspect any new events. ...histology from right across Loch Etive taken 20/8/21 which is now strongly indicating a loch-wide low-level gill insult at some point. Although it doesn’t seem likely that this has caused mortality directly by itself, it does now seem likely that it was a significant factor when coupled with the hydrolicer event.” FHI to pay a visit when in area W/B 20/9/21

FARMED FISH SEA LICE NOTIFICATION - FORM

Template Version #: 1.0

Site No	Site Name	Business No	Business Name	Calendar Week No	Week beginning	Weekly avg. AF No./fish	Reason for no count
FS1067	Inverawe (East) Etive 2	FB0456	Dawnfresh Farming Ltd	39	27/09/2021	13.03	
FS1101	Etive 3 (Port na Mine)	FB0456	Dawnfresh Farming Ltd	39	27/09/2021	25.26	
FS1112	Etive 4	FB0456	Dawnfresh Farming Ltd	39	27/09/2021	21.98	
FS1288	Etive 6	FB0456	Dawnfresh Farming Ltd	39	27/09/2021	12.30	

FARMED FISH SEA LICE NOTIFICATION - FORM

Template Version #: 1.0

Site No	Site Name	Business No	Business Name	Calendar Week No	Week beginning	Weekly avg. AF No./fish	Reason for no count
FS1067	Inverawe (East) Etive 2	FB0456	Dawnfresh Farming Ltd	40	04/10/2021	0.48	
FS1101	Etive 3 (Port na Mine)	FB0456	Dawnfresh Farming Ltd	40	04/10/2021	5.08	
FS1112	Etive 4	FB0456	Dawnfresh Farming Ltd	40	04/10/2021	10.66	
FS1288	Etive 6	FB0456	Dawnfresh Farming Ltd	40	04/10/2021	13.12	