

Case No: 2022-0145 Date of visit: 09/05/2022

Time spent on site: 1h Main Inspector: [Redacted]

Site No: FS1119 Site Name: Rothiemurchus Fishery
Business No: FB0018 Business Name: Rothiemurchus Estate

Case Types: 1 ECI 2 CNI 3 4 5 6

Water Temp (°C): 12.4 Thermometer No: T305 FHI 045 completed N/A

Observations: Region: HI Water type: F CoGP MA:

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

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

Additional Case Information:

Records kept for fish caught by customers and taken away through the fishery FS1119.

4 Ponds, 1 large Fly fishing pond with netting to separate some areas. 2 Bait Ponds, and the Osprey pond. Small part of the large Fly fishing pond separated of into a second Bait Pond.

No treatments conducted, or planned.

Case No: Site No:

Date of Visit: Inspector(s):

Registration/Authorisation Details

1. Business/site details summary checked by site representative?

2. Changes made to details?

Site Details (include cleaner fish for all sections)

Total No facilities	<input type="text" value="4"/>	Facilities stocked	<input type="text" value="4"/>	No facilities inspected	<input type="text" value="4"/>
Species	<input type="text" value="RTR"/>	<input type="text" value="RTR"/>			
Age group	<input type="text" value="2022"/>	<input type="text" value="2018-2020"/>			
No Fish	<input type="text" value="40"/>	<input type="text" value="300"/>			
Mean Fish Wt	<input type="text" value="0.5-1kg"/>	<input type="text" value="1.5-3kg"/>			
Next Fallow Date (Site)	<input type="text" value="N/A"/>		Next Input Date (Site)	<input type="text" value="next week"/>	
Recent (last 4 wks) disease problems?			Any escapes (since last visit)?	<input type="text" value="N"/>	
If yes, detail:	<input type="text" value=""/>				

Movement Records

1. Movement records available for inspection?

2. Date of last inspection:

3. Are records complete and correctly entered?

4. Are movement records available for dead fish and waste?

5. Are records complete and correctly entered?

6. Are health certificates for introductions (outwith GB) available?

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?

2. How are mortalities disposed of?

If other detail:

3. Mortality records complete and correctly entered?

4. Recent mortality (last 4 wks):

5. Evidence of recent increased/atypical mortalities?

If yes, facility nos/no mortality per facility/no stock per facility/reason:

6. Any other peaks in mortality during period checked?

If yes, detail:

7. Have increased (unexplained) mortalities been reported to vet or FHI?

If yes, detail action:

8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.

Treatments and Medicines Records

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

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>	Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/>	Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>	Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>	Y
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.)?	<input type="checkbox"/>	Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>	Y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>	Y
If no, detail: <input type="text"/>		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	N
2. If yes, are results available for inspection?	<input type="checkbox"/>	
3. Any significant results?	<input type="checkbox"/>	
If yes, detail (if not detailed under recent disease problems). <input type="text"/>		

Records checked between:	<input type="text" value="24/02/2020 - 09/05/2022"/>
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Case Number:	2022-0145	Site No:	FS1119	Insp:		
Date of Visit	09/05/2022	No of movements/supp./dest.			Score	
Live fish movements		0	1-5	6-10	>10	
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14	0
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26	
	Number of suppliers	0	5	10	14	0
Movements off	Frequency of movements off	0	3	6	10	0
	Number of destinations	0	3	6	10	0
Exposure via water	Site contacts	0	1-5	6-10		
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0				
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4		2
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6		
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8		
Management practices		None	Secure	Unsecure		
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2		0
On farm processing within the rules of the directive	No on farm processing	0				
	Processing own fish (re-cycling risk)	1				1
	Processing fish from MS of equivalent status	2				
	Processing fish from zone or compartment of equivalent status	4				
	Processing fish from Category III farm	8				
	Processing fish from Category V farm	10				
Disposal of fish and fish by-products	Site's own waste only processed.	0				
	Common processes with other farms	3				3
	Collection point for waste from other farms	5				
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				
Biosecurity	Number of sites	1	2 or 3	≥ 4		
Contacts with other sites	Sites operating from single shorebase	0	1	2		1
	Sites sharing staff and equipment	0	1	2		1
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
CoGP/Regulator						
Practices in accordance with regulator or industry code of practice	Yes	0				
	No	3				3
Platform access to cages	Yes	0				0
	No	2				
Total Rank					11	LOW

Case No: **2022-0145**

Site No: **FS1119**

Sea Lice Inspection (Seawater Sites Only)

1. Has the site experienced sea lice problems in the previous 4 years?
2. Is the CoGP Farm Management Area (or equivalent) followed synchronously on a single year class basis?
3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?
4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)
8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been administered or other actions taken when *L. salmonis* levels have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)
11. Has any other action been taken (where applicable)?
12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
13. Are treatments, where conducted, carried out in cooperation between participating farms?
14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

1. Has the site experienced equipment damage due to predators in the current or previous production cycles? N
 2. Are measures in place to mitigate against the predation experienced on site? (Detail below) Y
- If other, detail below:
- Screens on inflow and outflow
3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection? N
If Yes proceed with questions 4 – 9. If No skip to question 10
 4. Have these been reported to Scottish Ministers?
 5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
 6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
 7. Were methods (if any) used to recover escapees? If yes give detail
 8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)
 9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)
 10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s) Y

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0018	DATE OF VISIT	09/05/2022
SITE No	FS1119	SITE NAME	Rothiemurchus Fishery
CASE No	20220145	INSPECTOR	██████████

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as low. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every third year. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

Aquaculture animal and aquaculture animal product movement records were inspected and found to be inadequately maintained.

Records in relation to aquaculture animals transported by the business were inspected and found to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

No mortality levels exceeding the reporting criteria have been recorded since the last inspection.

No animal health surveillance had been carried out on behalf of the business and/or Marine Scotland since the last Marine Scotland Inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

The following points were raised with the site representative during the inspection:

R04

- FS numbers must be recorded in the source/destination section of the movement record book, to allow for better traceability of stocks. It was discussed with the site manager that this would be recorded in future. No further action is required.
- No records were kept of mortalities removed from the site by general waste collection. It was discussed with the site manager that this would be recorded in future. No further action is required.

These must be addressed to ensure the conditions of authorisation for your Aquaculture Production Business (APB) are being met.

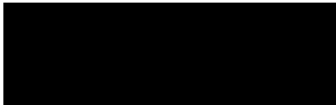
Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

The site was also inspected in accordance with the Aquaculture and Fisheries (Scotland) Act 2007 with respect to section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory.

Please contact myself or the duty inspector should you require any assistance or clarification in implementing any requirement or recommendation detailed in this report.

Signed:



Fish Health Inspector

Date: 19/05/2022

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at <https://www.gov.scot/publications/fish-health-inspectorate-service-charter/>

Case No:	<input type="text" value="2022-0173"/>	Date of visit:	<input type="text" value="31/05/2022"/>			
Time spent on site:	<input type="text" value="5h"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="FS1118"/>	Site Name:	<input type="text" value="Trilleachan Mor"/>			
Business No:	<input type="text" value="FB0119"/>	Business Name:	<input type="text" value="Mowi Scotland Ltd"/>			
Case Types:	1 <input type="text" value="ECI"/>	2 <input type="text" value="CNI"/>	3 <input type="text" value="SLI"/>	4 <input type="text" value="VMD"/>	5 <input type="text" value="DIA"/>	6 <input type="text" value=""/>
Water Temp (°C):	<input type="text" value="10.1"/>	Thermometer No:	<input type="text" value="T173"/>	FHI 045 completed	<input type="text" value=""/>	
Observations:	Region:	WI	Water type:	S	CoGP MA:	W-6
Dead/weak/abnormally behaving fish present?	<input type="text" value="y"/>	If yes, see additional information/clinical score sheet.				
Clinical signs of disease observed?	<input type="text" value="y"/>	If yes, see additional information/clinical score sheet.				
Gross pathology observed?	<input type="text" value="y"/>	If yes, see additional information/clinical score sheet.				
Diagnostic samples taken?	<input type="text" value="y"/>					

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

Additional Case Information:

Records only available from wk 14 2022 as this is the first cycle of fish to be grown at the site since it was taken over by Mowi. Some assessments on SLI is based on submissions made by TSSC to FHI.

Stock on site a thin down from Seaforth, historic AGD on site.

Seven day treatment of Slice administered on the 24th April to the 30th April, site records indicate withdrawal but standard treatment.

A high number of lethargic/moribund fish evident in all cages, some lice grazing damage and evidence of net abrasion noted. These fish were all high in the pens and the general population appeared in reasonable condition although they were deep in the water column. Advised that focus on moribund removal should be prioritised.

Five fish were removed for diagnostic sampling.

Case No: **2022-0173** Site No: **FS1118**
 Date of Visit: **31/05/2022** Inspector(s): **[REDACTED]**

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	8	Facilities stocked	8	No facilities inspected	8
Species	SAL				
Age group	2021 Q2				
No Fish	337,466				
Mean Fish Wt	3.7				
Next Fallow Date (Site)	July 2022	Next Input Date (Site)	April 2023		
Recent (last 4 wks) disease problems?		Any escapes (since last visit)?	Y		N
If yes, detail:	AGD/moritella				

Movement Records

1. Movement records available for inspection? **Y**
 2. Date of last inspection: **02/04/2020**
 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)? **Y**
 If yes, is there a system in place for maintenance of transportation records? **Y**

Mortality Records

1. Mortality records available for inspection? **Y**
 2. How are mortalities disposed of? **Ensiled - on site**
 If other detail: **Also whole fish to whiteshore**
 3. Mortality records complete and correctly entered? **Y**
 4. Recent mortality (last 4 wks): **wk 18 613 (0.38%) Wk19 131 (0.04%) wk 20 1052 (0.31%) wk 21 486 (0.14%) attributed to thermolicer, moritella, physical damage and seals.**
 5. Evidence of recent increased/atypical mortalities? **N**
 If yes, facility nos/no mortality per facility/no stock per facility/reason:
 6. Any other peaks in mortality during period checked? **N**
 If yes, detail:
 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)?	<input type="checkbox"/>	Y
If yes, detail:	TMS	
If other, detail:		
2. Medicines records available for inspection?	<input type="checkbox"/>	Y
3. Are records complete and correctly entered?	<input type="checkbox"/>	Y
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	TMS	
If other, detail:		
6. Are medicines stored appropriately?	<input type="checkbox"/>	Y

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>	y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>	y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained) mortality</i> at the site been included?	<input type="checkbox"/>	y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>	y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>	y
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.)?	<input type="checkbox"/>	y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>	y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>	y
If no, detail:		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	Y
2. If yes, are results available for inspection?	<input type="checkbox"/>	Y
3. Any significant results?	<input type="checkbox"/>	Y
If yes, detail (if not detailed under recent disease problems).	Moritella	

Records checked between:	4/4/2022 to 25/5/2022
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Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG 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	6	7	8	9	10		
Pool Group	P1	P1	P1	P1	P1								
Species	SAL	SAL	SAL	SAL	SAL	SAL	SAL	SAL	SAL	SAL	SAL	SAL	
Average weight	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	3.5000	
Sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Water Type	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	
Stock Details		Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	Sea forth	
	Stock Origin												
Facility No	4	6	2	2	4		3	2	6	4	5		

Case no: 2022-0173

Site No: FS1118

Method of killing: Percussive

Date of visit: 31/05/2022

Inspector(s):

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

Additional comments:

Case Number:	2022-0173	Site No:	FS1118	Insp:			
Date of Visit	31/05/2022	No of movements/supp./dest.			Score		
Live fish movements		0	1-5	6-10	>10		
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14	0	
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26	0	
	Number of suppliers	0	5	10	14	0	
Movements off	Frequency of movements off	0	3	6	10	10	
	Number of destinations	0	3	6	10	3	
Exposure via water		Site contacts			0	1-5	6-10
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0					
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4		2	
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6			
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8			
Management practices		None	Secure	Unsecure			
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2		0	
On farm processing within the rules of the directive	No on farm processing	0				0	
	Processing own fish (re-cycling risk)	1					
	Processing fish from MS of equivalent status	2					
	Processing fish from zone or compartment of equivalent status	4					
	Processing fish from Category III farm	8					
	Processing fish from Category V farm	10					
Disposal of fish and fish by-products	Site's own waste only processed.	0					
	Common processes with other farms	3				3	
	Collection point for waste from other farms	5					
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0	
	Feeding unpasteurised feed	5					
Biosecurity		Number of sites	1	2 or 3	≥ 4		
Contacts with other sites	Sites operating from single shorebase	0	1	2		1	
	Sites sharing staff and equipment	0	1	2			
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0	
	No	1					
CoGP/Regulator							
Practices in accordance with regulator or industry code of practice	Yes	0				0	
	No	3					
Platform access to cages	Yes	0				0	
	No	2					
Total Rank					19	MEDIUM	

Case No: **2022-0173**

Site No: **FS1118**

Sea Lice Inspection (Seawater Sites Only)

- 1. Has the site experienced sea lice problems in the previous 4 years?
- 2. Is the CoGP Farm Management Area (or equivalent) followed synchronously on a single year class basis?
- 3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?
- 4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
- 5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
- 6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
- 7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)
- 8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?
- If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
- 9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
- 10. Have therapeutic treatments been administered or other actions taken when *L. salmonis* levels have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)
- 11. Has any other action been taken (where applicable)?
- 12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
- 13. Are treatments, where conducted, carried out in cooperation between participating farms?
- 14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
- 15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?
- 16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

- 1. Has the site experienced equipment damage due to predators in the current or previous production cycles?
- 2. Are measures in place to mitigate against the predation experienced on site? (Detail below)

Tensioned nets top nets
 If other, detail below:

- 3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection?
- If Yes proceed with questions 4 – 9. If No skip to question 10
- 4. Have these been reported to Scottish Ministers?
- 5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
- 6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
- 7. Were methods (if any) used to recover escapees? If yes give detail
- 8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)
- 9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)
- 10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s)

Case No: 2022-0173

Site No: FS1118

Date of Visit: 31/05/2022

Inspector: [REDACTED]

Point of Compliance

1. Is the farm under inspection located within a farm management area?

Y

If N, no further questions require completion.

Points of Compliance for Both Farm Management Agreements and Statements

2. Has a current farm management agreement or statement (FMAg/S) been prepared?

y

3. Is the current FMAg/S available for inspection?

y

4. Does the FMAg/S identify the relevant farm management area?

y

5. Does the FMAg/S identify the fish farm site(s) to which it applies?

y

6. Does the FMAg/S identify the date of commencement of the agreement or statement?

y

7. Does the FMAg/S identify the date of review?

y

Arrangements for Fish Health Management

8. Does the FMAg/S identify the minimum health standards for the stocks to be introduced to the area or farm?

y

9. Does the FMAg/S identify the vaccination requirements for stocks held in the area or farm?

y

10. Does the FMAg/S identify the species of fish which may be stocked into the area or farm?

y

11. Does the FMAg/S identify the maximum stocking density of any pen on any farm in the area or the individual farm?

y

12. Does the FMAg/S identify the arrangements for the storage and disposal of any dead fish from any fish farm in the area or the individual farm?

y

Arrangements for The Management of Sea Lice

13. Does the FMAg/S identify arrangements for the sharing of data on sea lice numbers and treatments?

y

14. Does the FMAg/S identify the availability and the use of medicines on farms covered by the agreement of statement?

y

15. Does the FMAg/S identify any requirements for the sensitivity testing of available treatments for sea lice on farms in the area or individual farms?

y

16. Does the FMAg/S identify the circumstances under which biological controls and cleaner fish are to be used on farms in the area or individual farms?

y

17. Does the FMAg/S identify the arrangements for synchronous treatments on farms within the area?

y

Live Fish Movements

18. Does the FMAg/S identify the circumstances when live fish may be introduced or removed from the area or farm?

y

19. Does the FMAg/S identify the arrangements for the movement of live fish on and off sites in the area or individual farms?

y

Harvesting

20. Does the FMAg/S identify acceptable harvest practices on farms in the area or individual farms?

Fallowing

21. Does the FMAg/S identify the dates by which the area or individual farm will be fallow and the earliest date when a farm or area may be restocked?

22. Does the FMAg/S identify whether one or more year classes may be stocked onto sites covered by the agreement or statement?

23. Does the FMAg/S identify whether broodstock or potential broodstock are to be kept on any site covered by the agreement or statement?

Point of Compliance for Farm Management Agreements Only

24. Does the farm management agreement include arrangements for persons to become, or cease to be, parties to the agreement?

Management and operation

25. Is the fish farm being managed and operated in accordance with the agreement or statement?

26. What is the version no/date of issue of the FMAg/S?



Case No: **2022-0173** Date of visit: **31/05/2022**
 Site No: **FS1118** Inspector: **[REDACTED]**

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 nd Insp
MG AGD	0/5	07/06/2022		14/06/2022		04/08/2022		
MG IHN	0/3	07/06/2022		14/06/2022		04/08/2022		
MG IPN	3/3	07/06/2022		14/06/2022		04/08/2022		
MG ISA	0/3	07/06/2022		14/06/2022		04/08/2022		
MG PARA THER	3/5	07/06/2022		14/06/2022		04/08/2022		
MG PMCV	2/3	07/06/2022		14/06/2022		04/08/2022		
MG SAL POX	0/5	07/06/2022		14/06/2022		04/08/2022		
MG SAV	0/3	07/06/2022		14/06/2022		04/08/2022		
MG VHS	0/3	07/06/2022		14/06/2022		04/08/2022		
BA VSPE	5/5	20/06/2022		20/06/2022		04/08/2022		
COST	2/5	13/07/2022		14/07/2022		04/08/2022		
LPAT	3/5	13/07/2022		14/07/2022		04/08/2022		
HPAT	5/5	13/07/2022		14/07/2022		04/08/2022		
CMPS	2/5	13/07/2022		14/07/2022		04/08/2022		
IHNV	0/2	13/07/2022		14/07/2022		04/08/2022		
IPNV	1/2	13/07/2022		14/07/2022		04/08/2022		
ISAV	0/2	13/07/2022		14/07/2022		04/08/2022		
VHSV	0/2	13/07/2022		14/07/2022		04/08/2022		
SAVV	0/2	13/07/2022		14/07/2022		04/08/2022		
SULC	1/5	13/07/2022		14/07/2022		04/08/2022		

Report Summary			
Case Type	Date	Insp	2 nd Insp
ECI,CNI,SLI,VMD	23/06/2022		
DIA	04/08/2022		

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0119	DATE OF VISIT	31/05/2022
SITE No	FS1118	SITE NAME	Trilleachan Mor
CASE No	20220173	INSPECTOR	██████████

Section 1: Summary

During a routine site inspection five moribund and lethargic fish were removed for further examination and subsequent diagnostic sampling.

Histopathology examination revealed pathology consistent with cardiomyopathy syndrome (CMS) (confirmed by qPCR in F1 and F3), mild ulcerative dermatitis, mild hepatic necrosis and nephritis. Gills displayed several Costia-like (*Ichthyobodo* sp.) parasites.

Gill samples from F1, F2 and F5 tested positive for *Paranucleospora theridion* by qPCR. Samples of heart and kidney tested positive for Infectious pancreatic necrosis virus (IPNV) in F1, F3 and F4 by qPCR.

Due to a failure of the endogenous control, no virology results were available for F2 and F5 by qPCR, tissue samples were therefore screened for specific pathogens (as detailed in the virology section below) by cell culture, IPNV was isolated from F5.

Three separate *Vibrio* sp. were identified (isolates A, B and C) on plates taken from kidney, lesion and gill material, whilst the level of growth on plates taken from lesion material was significant the purity would not suggest that any of the isolates be implicated as the primary source of the lesions or morbidity.

Please contact myself or the duty inspector should you require any further information, have any queries regarding this report or if any problems develop.

Section 2: Case Detail

Observations

During a routine site inspection a high number of lethargic and moribund fish were observed in all cages. Fish had been recently input to the site from Seaforth which had issues with *Pasteurella skyensis* earlier in the cycle and more recently gill health challenges. Five fish were removed from the pens for further examination and subsequent diagnostic sampling.

All fish sampled were lethargic and moribund with a darkened body. Some haemorrhaging was evident on the flanks of all fish with lesions also present to varying degrees. The gills of all fish were pale and appeared necrotic in F3.

R09

Internally all fish displayed pale hearts but the heart was also deformed in a F3. The pyloric caeca of F1 and F3 appeared mauve in colour, splenomegaly was evident in F3. All fish had granular kidneys with yellow pseudo faeces present within the hind gut.

Samples

Samples were collected from five fish according to the table below:

Fish number	Facility number	Species	Stage	Origin
1 & 5	4	Atlantic salmon	3.5kg 2021 Q2	Seaforth
2	6	Atlantic salmon	3.5kg 2021 Q2	Seaforth
3 & 4	2	Atlantic salmon	3.5kg 2021 Q2	Seaforth

Bacteriology: Kidney, gill and lesion material from F1 to F5 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated from fish F1 to F5:

- *Vibrio* sp. (isolate A) from;
 - kidney of F1, F3 and F4;
 - lesion of F1- F5;
- *Vibrio* sp. (isolate B) from;
 - kidney F1, F3 and F5;
 - gill F2, F3 and F5;
 - lesion F1-F5;
- *Vibrio* sp. (isolate B) from:
 - Kidney F1 and F4;
 - Lesion of F1-F5.

Virology: Tissue samples were tested for segments of nucleic acid indicative of the presence of the pathogens specified below using real-time PCR (qPCR).

Piscine myocarditis virus

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	18.49	16.35	16.39	16.44	POSITIVE
F2	-	-	-	-	NO RESULT
F3	18.23	24.17	24.27	24.20	POSITIVE
F4	-	-	-	-	NEGATIVE
F5	-	-	-	-	NO RESULT

Infectious pancreatic necrosis virus

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	18.49	28.73	28.86	28.68	POSITIVE
F2	-	-	-	-	NO RESULT
F3	18.23	34.14	34.52	34.72	POSITIVE
F4	15.08	34.92	35.23	34.57	POSITIVE
F5	-	-	-	-	NO RESULT

Due to a failure of the endogenous control tissue samples from F2 and F5 were screened for the pathogens specified below by cell culture. The following pathogen was identified:

- IPNV F5

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious salmon anaemia virus (ISAV), salmonid alphavirus (SAV) and viral haemorrhagic septicaemia virus (VHSV) and salmon gill poxvirus (SGPV).

Parasitology: Tissue samples were tested for segments of nucleic acid indicative of the presence of the parasites specified below using real-time PCR (qPCR).

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	22.11	32.28	32.32	32.16	POSITIVE
F2	22.19	37.7	36.61	36.69	POSITIVE
F3	-	-	-	-	NEGATIVE
F4	-	-	-	-	NEGATIVE
F5	21.93	34.89	34.84	34.98	POSITIVE

The samples tested negative for *Neoparamoeba perurans* (AGD).

Histology: Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen and kidney were taken from F1 to F5. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Gill: Some minor interlamellar hyperplasia (F1), several lamellae displayed lamellar thrombi and epithelial thickness (F3, F5). F5 also exhibited some gill filament bluntness and cell infiltration. Several Costia-like cells free among lamellae and attached to the lamellar epithelium (F1 -F2). One basophilic epithelial inclusion (likely epitheliocystis) (F5). Few aneurysmal dilation/telangiectasia noted in one individual (F4);

Skin & Muscle: Several individual white fibres displaying features of degeneration and some cellular inflammatory infiltration (F3, F5). F4 lesion: absence of epidermal layer, some oedematous dermis and the outer layer displayed presence of rod-shaped Gram-negative bacteria and some inflammatory cellular infiltration;

Heart: F1 & F5 displayed moderate to marked myocardial mononuclear inflammatory cell infiltration (endocarditis) and marked myocardial degeneration and necrosis in the ventricle and atrium

R09

Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB

Tel - 0131 244 3498 Fax - 0131 244 0944 Email - ms.fishhealth@gov.scot

Website - www.gov.scot/Topics/marine/science

chamber. F1 also exhibited a massive clot in the atrium chamber. A small area of inflammatory cellular infiltration was noted in the compact layer of F2 and F5. Mild pericarditis (F3, F4);

Gut and pyloric caeca: Some to moderate fibrous adhesions (likely associated with vaccine administration) (F1). F4 displayed some cell sloughing potentially associated with post-mortem artefact);

Pancreas: Within normal range;

Liver: Mild multifocal hepatic necrosis (F5), mainly at the edge of the liver tissue, some vessels displayed mild fibrosis, mild diffuse hepatocellular vacuolation (macrovisicules) (F1, F3);

Kidney: Reduced haematopoietic tissue and some inflammatory cell infiltration (F4);

Spleen: Small area of infiltration of mononuclear cells (F3), some cuffing (F3) and some evidence of erythrophagocytosis (F5). Slight congested (F2, F4, F5).

Signed:



Date: 04/08/2022

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at <https://www.gov.scot/publications/fish-health-inspectorate-service-charter/>

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0119	DATE OF VISIT	31/05/2022
SITE No	FS1118	SITE NAME	Trilleachan Mor
CASE No	20220173	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

Samples were taken for diagnostic purposes. A separate report will be issued detailing the results of these tests.

Records

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

Aquaculture animal and aquaculture animal product movement records were inspected and appeared to be adequately maintained.

Records in relation to aquaculture animals transported by the business were inspected and found to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

No mortality levels exceeding the reporting criteria have been recorded since the last inspection.

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Scotland were available for inspection.

Inspection under the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015

Medicine records were inspected and found to be adequately maintained.

Samples were taken to be analysed for veterinary residues.

Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

The site was also inspected in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice), section 4A regarding fish farm management agreements and statements and section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory with regards to parasites, fish farm management agreements and statements, containment and escapes.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:



Date: 23/06/2022

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at <https://www.gov.scot/publications/fish-health-inspectorate-service-charter/>