

Case No:	<input type="text" value="2021-0093"/>	Date of visit:	<input type="text" value="05/05/2021"/>			
Time spent on site:	<input type="text" value="3h"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="FS0804"/>	Site Name:	<input type="text" value="Kishorn B (North)"/>			
Business No:	<input type="text" value="FB0125"/>	Business Name:	<input type="text" value="Scottish Sea Farms Ltd"/>			
Case Types:	1 <input type="text" value="ECI"/>	2 <input type="text" value="SLI"/>	3 <input type="text" value="CNA"/>	4 <input type="text" value="ESC"/>	5 <input type="text" value="VMD"/>	6 <input type="text" value="DIA"/>
Water Temp (°C):	<input type="text" value="7.8"/>	Thermometer No:	<input type="text" value="T173"/>	FHI 045 completed	<input type="text" value=""/>	
Observations:	Region:	HI	Water type:	S	CoGP MA	M-19
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:**

Paperwork completed on 30/4/2021 by [REDACTED] and [REDACTED] Site inspection and sampling completed on the 5/5/2021 by [REDACTED] and [REDACTED].

Report of seal in pen but no fish reported to have escaped.

A number of moribund fish observed across the site, some with physical damage. 5 sampled for diagnostics.

2019 Weeks 37, 38, 40 mortalities already reported to Marine Scotland.

2019 week 39 2.98% (3,892 fish) Complex Gill Disease. Added to mortality events.

Case No: **2021-0093** Site No: **FS0804**  
 Date of Visit: **05/05/2021** 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	10	Facilities stocked	10	No facilities inspected	10
Species	SAL	WRA			
Age group	2020	mix wild			
No Fish	413,414	14,963			
Mean Fish Wt	2.1kg	300g			
Next Fallow Date (Site)	September 2021		Next Input Date (Site)	March 2022	
Recent (last 4 wks) disease problems?			N	Any escapes (since last visit)?	Y
If yes, detail:	seal in the pen, no fish reported to have escaped.				

**Movement Records**

- 1. Movement records available for inspection?  Y
- 2. Date of last inspection: **10/09/2019**
- 3. Are records complete and correctly entered?  N
- 4. Are movement records available for dead fish and waste?  N/A
- 5. Are records complete and correctly entered?  N/A
- 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)?  N
- 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? **Incinerated - on site**
- If other detail: **[REDACTED]**
- 3. Mortality records complete and correctly entered?  Y
- 4. Recent mortality (last 4 wks): **wk 13 1841 (0.4%) wk 14 1119 (0.3%) wk 15 1889 (0.5%) wk 16 4309 (1%) -**
- 5. Evidence of recent increased/atypical mortalities?  Y
- If yes, facility nos/no mortality per facility/no stock per facility/reason: **[REDACTED]**
- 6. Any other peaks in mortality during period checked?  Y
- If yes, detail: **Refer to mortality event spreadhseet.**
- 7. Have increased (unexplained) mortalities been reported to vet or FHI?  N/A
- If yes, detail action: **[REDACTED]**
- 8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.  N

**Treatments and Medicines Records**

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

**Biosecurity Records**

1. Biosecurity records available for inspection?  y  
 2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?  y  
 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?  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 *how* and *when* that will be notified to Scottish Ministers?  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)?  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.)?  y  
 7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?  y  
 8. Have the biosecurity procedures been adequately implemented on site?  Y  
 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). AGD, some gill health issues,

Records checked between: 10/9/2019 to 5/5/2021

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					
Pool Group	P1	P1	P1	P1	P1								
Species	SAL	SAL	SAL	SAL	SAL	SAL	SAL	SAL					
Average weight	2.1000	2.1000	2.1000	2.1000	2.1000	2.1000	2.1000	2.1000					
Sex	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					
Stock Details		FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit	FS1328 Barcaldine Smolt Unit				
	Stock Origin												
Facility No	P8	P1	P1	P1	P3		P3	P6					



Case no: 2021-0093

Site No: FS0804

Method of killing: Percussive

Date of visit: 05/05/2021

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)		3.5h	3.5h	3.5h	3.5h	3.5h							
External Signs													
Behaviour	Moribund	M	M	M	M	M							
	Lethargic	S	S	S	S	S							
	Hanging vertical												
	Spiralling												
	Flashing												
	Loss of equilibrium												
Body	Dark												
	Distended abdomen												
	Anorexic		S	S	S	S							
	Scale Oedema												
Opercula	Shortened	W	W										
	Flared												
Haemorrhaging	Throat												
	Ventrum												
	Base of fins												
	Elsewhere												
Eyes	Exophthalmic	M											
	Enophthalmic (sunken)												
	Cataract												
	Haemorrhagic												
Gills	Pale	W											
	Zoned		W										
	Necrotic		W										
Lesions	Flank	W			S	S							
	Elsewhere				S	S							
Vent	Inflamed					W							
	Trailing faeces												
Lice Load	Estimate numbers												
Internal Signs													
Ascites	Clear												
	Bloody												
Oedema	In tissues												
Heart	Pale/anaemic												
	Granulomas												
	Deformed	W											
Liver	Petechial haem												
	Gross haem												
	Tissue breakdown												
	Enlarged												
	Colour number(s)	4	3	4	5	4							
	Granulomas												
	Lesions												
Pyloric caeca	Petechial haem												
	Tubules mauve												
	Lack of fat		W	W	M	M							
Spleen	Enlarged	S		S	W								
	Granulomas												
Gut	No food present												
	Yellow pseudo-faeces	M	M										
	External haem												
	Internal haem												
Body wall	Haemorrhaging												
Swim bladder	Haemorrhaging												
	Fluid filled												
Kidney	Swollen												
	Grey												
	Granular	W	W	W	W	W							
	Liquefied												
General	Parasites present												
	Anaemia												





Additional comments:

Possible signs of AGD on gills. Hind gut of fish 4 seemed inflamed, Delayed sampling due to logistic issues with boats and poor weather.

Case No: **2021-0093**

Site No: **FS0804**

**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
- 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 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
- 15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised
- 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)
- top net                      tensioned nets                      seal pro nets                      ADD
- If other, detail below:
- ADD has been installed post seal incident
- 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: 2021-0093

Site No: FS0804

Date of Visit: 05/05/2021

Inspector: [REDACTED]

**Point of Compliance**

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

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?

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

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

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

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

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

**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?

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

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

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

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?

**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?

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

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?

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?

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

**Live Fish Movements**

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

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

**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?

Site No: FS0804
Case No: 2021-0093
Nature of non-compliance:
Action taken (FHI):
Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology



Case No: 2021-0093 Site No: FS0804

Date of visit: 05/05/2021 Inspector(s):

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
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**ENHANCED CONTAINMENT INSPECTION (SEAWATER)**

**a. Enquiry relating to i) escape incidents and ii) contingency procedures**

1.1. Have escape incidents or events <sup>1</sup> been experienced on or in the vicinity of the site since the last MSS inspection?		Y		No fish reported to have escaped so didn't report
<b>If yes answer 1.2-1.8:</b>				
1.2. Have appropriate reports been made to Scottish Government within 24 hours of discovery?	High	Y	AAAH Regs <sup>4</sup> 31D,E	
1.3. Have these been reported to the SSPO <sup>2</sup> and, where in existence, the local DSFB and fisheries trust?	Medium	N	CoGP 4.4.37, 5.4.17	
1.4. Were methods (if any) used to recover escapees? If yes give detail		N/A		
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		
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	ADD installed, increased surveillance, divers patched hole in C1, at 1500, whole site inspected the next day

**b(i). Inspection of records relating to equipment, facilities and the site**

General records			CoGP: 4.4.9, 4.4.14, SSI 2,1		
2.1 With regard to each facility, net, screen and mooring at each site, a record should be maintained of:-					
			Facilities	Moorings	Nets
a) The name of the manufacturer	Low	n	N	N	Y
b) Any special adaptations	Low	N/A	N/A	N/A	N/A
c) The name of the supplier	Low	n	N	N	Y
d) The date of purchase	Low	n	N	N	Y

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
e) Each inspection including				Service
i) the name of the person conducting the inspection	Low	y	y Y	
ii) the date of each inspection	Medium	y	y Y	
iii) the place of each inspection	Low	y	y Y	
iv) the outcome of each inspection	High	y	y N	
f) the date and result of each repair, equipment test and antifouling treatment carried out	High	y	y Y	To check on site
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		
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	Y	SSI, 2,3	
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		
ii) The design and weight of the anchors	Low	y		
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	N	SSI, 2,5	
2.6 In respect of sites at which fish are farmed in inland waters <sup>3</sup>			SSI, 2,6	
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)	
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	

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
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	
2.12 Is there evidence of the competence of personnel involved in the design, installation and maintenance of pen and mooring systems?	High	Y	CoGP 4.4.12, 4.4.15	
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	
2.14 Do all nets used on site meet industry standards?	High	Y	CoGP 4.4.17	
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	Dive reports maintained but no record of repair following seal in cage
2.20 Are frequent net inspections conducted to look for damage?	High	Y	CoGP 4.4.23	
2.21 Are net inspection records maintained?	High	y	CoGP 4.4.23	
2.22 Is the system by which nets are attached to the pen and weighted inspected frequently?	High	Y	CoGP 4.4.24	
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	
<b>b(ii). Inspection of records relating to training</b>				
3.1 Are training programmes and plans relevant to the various onsite activities documented?	High	N	CoGP 7.1.8	Nothing related to containment
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	



Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
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	N	SSI 2,7,a	No formal training given so no records maintained
<b>b(iii). Inspection of records relating to procedures and risk assessments</b>				
4.1 Are procedures which could increase the risk of fish escaping considered to be carefully planned and supervised to minimise risk?	High	Y	CoGP 4.4.29, 5.4.12	
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/A	SSI 2,6,c	
4.4 Does the site suffer from regular or heavy predation?		n		
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		
- The use of lethal means by any person involved in operations on the site	Low	N/A	SSI, 2,8,b	
4.8 Where predator nets are deployed is the advice of Annex 7 considered?	Low	N/A	CoGP 4.4.27	
<b>c. Inspection of site and site equipment</b>				
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		
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		
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 <sup>5</sup> 2010 P4, S21	couldn't be located during inspection
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	N	SSI 2,5	
<b>d. Inspection of site specific procedures</b>				
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	
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
<b>Additional actions</b>	<b>Powers</b>			<b>Comments and advice given or action taken if necessary</b>
<b>e) Collection of samples</b> 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)			
<b>h) Enforcement Notice.</b> 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 Number:	2021-0093	Site No:	FS0804	Insp:		
Date of Visit	05/05/2021	No of movements/supp./dest.			Score	
<b>Live fish movements</b>		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	
Movements off	Frequency of movements off	0	3	6	10	10
	Number of destinations	0	3	6	10	3
<b>Exposure via water</b>	<b>Site contacts</b>	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		
<b>Management practices</b>		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				0
	Common processes with other farms	3				
	Collection point for waste from other farms	5				
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				
<b>Biosecurity</b>	<b>Number of sites</b>	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		0
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
<b>CoGP/Regulator</b>						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				
<b>Total Rank</b>					<b>16</b>	<b>MEDIUM</b>



# FISH HEALTH INSPECTORATE VISIT REPORT

## SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0125	<b>DATE OF VISIT</b>	05/05/2021
<b>SITE No</b>	FS0804	<b>SITE NAME</b>	Kishorn B (North)
<b>CASE No</b>	20210093	<b>INSPECTOR</b>	[REDACTED]

### Section 1: Summary

During a routine site inspection moribund fish were observed in most pens, five of which were removed for further examination and subsequent diagnostic sampling.

Histopathology examination revealed mixed pathology. Integument displayed ulcerative lesions with Gram-negative bacteria associated (potentially linked to mechanical damage) and the gill displayed complex gill pathology, although the reading of the gill, gut and pyloric caeca of some fish was compromised by autolysis artefacts. Liver of F2 displayed mild zonal hepatocellular necrosis.

Due to reported gill issues on site, gill samples were screened for *Paranucleospora theridion*, *Neoparamoeba perurans* (the causative agent of amoebic gill disease (AGD)) and salmon gill poxvirus (SGPV). Samples tested positive for all three pathogens.

A sample of heart and kidney tissue tested positive for the presence of infectious pancreatic necrosis virus (IPNV) by qPCR. Sequencing of the IPNV VP2 gene determined the material to be IPNV genogroup 5 with virulence markers PTA indicating a potential avirulent type.

Two *Vibrio* spp. and one *Photobacterium* sp were isolated. The level and purity of growth on the plates taken from kidney material would not suggest they be implicated in current morbidity, however, the growth observed on plates taken from lesion material may suggest they are significant as a primary source of those lesions and may be a risk to an immune compromised population.

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 moribund fish were observed in most pens, five of which were removed for further examination and subsequent diagnostic sampling. Elevated mortalities of 1% per week were reported on site due to a mechanical treatment. Gill health issues had been identified during routine health surveillance on site.

All fish sampled were moribund and lethargic, with fish 2 to 5 appearing anorexic. The opercula of fish 1 and 2 were shortened and the eyes of fish 1 were exophthalmic. Gills of fish 1 were pale, and zoned and necrotic in fish 2. Lesions were present on the flanks of fish 1, 4 and 5; and the dorsal surface of fish 4 and the vent of fish 5 was also inflamed.

R09



Internally, the heart of fish 1 appeared deformed and there was a note of lack of fat in the pyloric caeca of fish 2 to 5. The spleens of fish 1, 3 and 4 were enlarged. There was presence of yellow pseudo-faeces in fish 1 and 2 and the kidneys of all fish appeared slightly granular.

### Samples

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

Fish number	Pool number	Facility number	Species	Stage	Origin
1	1	8	Atlantic salmon	Growers	Barcaldine Smolt Unit (FS1328)
2, 3, 4	1	1	Atlantic salmon	Growers	Barcaldine Smolt Unit (FS1328)
5	1	3	Atlantic salmon	Growers	Barcaldine Smolt Unit (FS1328)

### Results

**Bacteriology:** Kidney, gill, and lesion material from fish 1 to 5 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- *Vibrio* sp. (Isolate A);
  - Fish 1,3,4 and 5 (kidney);
  - Fish 1, 4 and 5 (lesion);
  - Fish 4 and 5 (gill).
- *Photobacterium* sp. (Isolate B);
  - Fish 1,3 and 4 (lesion).
- *Vibrio* sp. (Isolate C);
  - Fish 1,3 and 4 (kidney);
  - Fish 1 (lesion).

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

#### Infectious pancreatic necrosis virus (IPNV)

Pool Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
P1	20.07	26.5	26.54	26.67	POSITIVE

Sequencing of the IPNV VP2 gene determined the material to be IPNV genogroup 5 with virulence markers PTA indicating a potential avirulent type.

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.32	35.72	37.89	37.01	POSITIVE
F2	19.85	30.41	30.52	30.14	POSITIVE
F3	19.66	26.33	26.36	26.44	POSITIVE
F4	18.98	28.46	28.55	28.90	POSITIVE
F5	19.55	34.23	34.86	34.85	POSITIVE

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

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

*Neoparamoeba perurans* (AGD)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.32	32.26	32.21	32.40	POSITIVE
F2	19.85	34.50	33.75	34.42	POSITIVE
F3	19.66	35.27	36.31	36.21	POSITIVE
F4	18.98	31.11	31.06	31.30	POSITIVE
F5	19.55	35.68	35.58	36.70	POSITIVE

*Paranucleospora theridion*

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.32	24.56	24.69	24.67	POSITIVE
F2	19.85	23.94	23.97	23.86	POSITIVE
F3	19.66	27.13	27.37	26.84	POSITIVE
F4	18.98	23.27	23.47	23.46	POSITIVE
F5	19.55	30.33	30.69	30.60	POSITIVE

**Histology:** Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen and kidney were taken from fish 1 to 5. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Tissues from 5 Atlantic salmon were examined by light microscopy. The following histopathological changes were observed:

Gill: Minor interlamellar epithelial hyperplasia, observed mainly at the tips of the gill filaments (F1). Two copepod-like structures and two nests of cell debris with bacteria noted among gill filaments (F1). F3 displayed mild multifocal interlamellar epithelial hyperplasia and lamellar fusion. Several basophilic epithelial inclusions (likely epitheliocystis) also noted in F3. Several scattered aneurysmal dilation/telangiectasia and lamellar thrombi (F1-F5). Mild to marked autolytic artefacts observed in all fish. The reading F2, F4 & F5 hindered by the autolyse artefacts.

R09

Skin & Muscle: Absence of epidermal layer. Mild oedematous dermis and mild leukocyte infiltration. A thick layer of bacteria was also noted within and on the outer layer of dermis and it reached hypodermal layer (F1, F4 & F5). Some haemorrhage also noted on the hypodermal layer. Necrosis of skeletal muscle with bacteria associated (F4, F5).

Heart: Small nests of inflammatory cell infiltration (F3).

Gut and pyloric caeca: Abdominal adipose tissue displayed some inflammatory cell infiltration and some fibrous adhesions (likely associated with vaccine administration) (F5). Some to marked cell sloughing, likely associated with post-mortem artefacts (F1, F2, F3, F4, F5).

Pancreas: Within the normal range.

Liver: Multifocal coalescing hepatocellular necrosis (F2), some diffuse hepatocyte vacuolation (macroviscules) (F1). F4 & F5 displayed evidences of liver autolysis.

Kidney: Increased numbers of melanomacrophage aggregates (F4).

Spleen: Foci of reduced white pulp (F1).

Signed:



Date: 04/06/2021

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

<b>BUSINESS No</b>	FB0125	<b>DATE OF VISIT</b>	05/05/2021
<b>SITE No</b>	FS0804	<b>SITE NAME</b>	Kishorn B (North)
<b>CASE No</b>	20210093	<b>INSPECTOR</b>	[REDACTED]

An enhanced inspection to ascertain the risk of escape from the fish farm was conducted in accordance with the Aquaculture and Fisheries (Scotland) Act 2007.

The visit consisted of an inspection of facilities, records and the provision of advice.

### **a) Inspection of i) escape incidents and ii) contingency procedures**

The escape incident that was reported on the 12<sup>th</sup> March 2021 was not reported to all relevant stakeholders as it was considered that no fish had escaped, any escape or **suspected** escape incident should be reported within 48 hours of discovery.

The following recommendation is made for improvement.

**It is recommended that procedures should be in place for any escape or suspected escape of live fish to be reported immediately to all relevant stakeholders, including the trade body, local District Salmon Fishery Board and Fisheries Trust (or at the latest, within 48 hours of discovery), in accordance with A Code of Good Practice for Scottish Finfish Aquaculture (CoGP) (Chapter 4, part 4.37).**

### **b)i) Inspection of records relating to equipment, facilities and the site**

Records relating to facilities, moorings and nets were not maintained correctly. The following recommendations are made for improvement.

**It is recommended that to meet the requirements of Schedule 2 of the Fish Farming Businesses (Record Keeping) (Scotland) Order 2008 (RKO) records must be kept in relation to each facility and mooring to include:**

- The name of the manufacturer;
- Any special adaptations;
- The name of the supplier;
- The date of purchase;
- A record of any navigation markers deployed.

**In relation to nets:**

- The outcome of each inspection.

### **b)ii) Inspection of records relating to training**

No records of any training programmes and plans relevant to the onsite activities were maintained. The following recommendations are made for improvement.

**It is recommended that in accordance with the CoGP (chapter 7 part 1.8) training should be an integral part of the operation of all finfish aquaculture businesses, with programmes and plans relevant to the various activities being documented.**

**To meet the requirements of the RKO (schedule 2, section 7(a)) a record must be maintained of all training of each person working there in relation to containment and prevention of escape of fish, and recovery of escaped fish.**

### **b)iii) Inspection of records relating to procedures and risk assessments**

Although the site met the requirement of current Scottish industry best practice, due to the nature of the containment incident reported on 12<sup>th</sup> March 2021 and that a second similar incident was reported on the 5<sup>th</sup> June 2021, the following recommendations are made for improvement:

**It is recommended that a documented review is undertaken of the site-specific risk assessment to ascertain the risks of predator attacks in accordance with A Code of Good Practice for Scottish Finfish Aquaculture (CoGP) (Chapter 4, point 4.26).**

**It is also recommended that a documented review should be undertaken and implemented to identify improvements to the equipment in use and farm design to protect the fish from predators in accordance with CoGP (Chapter 5, point 5.8).**

**It is also recommended that a record of any changes made should be recorded to meet the requirements of schedule 2, section 8(a) and 8(c) of the Fish Farming Businesses (Record Keeping) (Scotland) Order 2008, which requires a record to be kept of any anti-predator measures undertaken, including:**

- details of the type and location of each net, fence and scarer deployed;
- any assessment of risk of escape of fish carried out.

### **c) Inspection of site and site equipment**

The following recommendation is made for improvement.

**It is recommended that to meet the requirements the RKO (Schedule 2 part 5) that a record is maintained in relation to any navigation markers deployed on site.**

### **d) Inspection of site specific procedures**

The site meets the requirement of current Scottish industry best practice. No recommendations made or further action required.

The recommendations in this report should be implemented by 29th September 2021. Documentation should be provided as evidence that the recommendations have been implemented. Enforcement action may result if the recommendations are not implemented in the necessary time frame. Records should be sent to Marine Scotland Science's Fish Health Inspectorate (FHI) (contact details are provided below).

R04

Please do not hesitate to contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:

A black rectangular box redacting the signature of the Fish Health Inspector.

Fish Health Inspector

Date: 01/07/2021

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

# FISH HEALTH INSPECTORATE VISIT REPORT

## SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0125	<b>DATE OF VISIT</b>	05/05/2021
<b>SITE No</b>	FS0804	<b>SITE NAME</b>	Kishorn B (North)
<b>CASE No</b>	20210093	<b>INSPECTOR</b>	[REDACTED]

### Case completion report

Recommendations in relation to the above case were made for implementation by 10/12/2021. Following submission of the required documentation, evidence has now been provided to Marine Scotland to demonstrate that the recommendations have been implemented.

This case will now be closed. This site may be subject to further audit and recommendations in the future.

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

Signed:

[REDACTED]

Date: 20/12/2021

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

<b>BUSINESS No</b>	FB0125	<b>DATE OF VISIT</b>	05/05/2021
<b>SITE No</b>	FS0804	<b>SITE NAME</b>	Kishorn B (North)
<b>CASE No</b>	20210093	<b>INSPECTOR</b>	[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.

All epidemiological units were inspected. 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 found to be **inadequately** 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.

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:

- In the movement records some of the fish site (FS) numbers were not recorded. For future movements please ensure FS numbers are recorded for each movement on and off site.



## **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.

An enhanced containment inspection was conducted. A separate report will be issued in due course.

The farm management agreement/statement was inspected and found to be **inadequately** maintained. Please see the attached annex detailing the points that must be addressed.

Please ensure that these points have been addressed by 14/06/2021. Records or documentation demonstrating that these points have been addressed should be sent to the Fish Health Inspectorate (contact details below). The site may be subject to further inspection or enforcement action should the appropriate action regarding the above points not be taken within the time period stipulated.

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:



Date: 12/05/2021

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/>

## **Annex - The Aquaculture and Fisheries (Scotland) Act 2007**

Section 4A of the Aquaculture and Fisheries (Scotland) Act 2007, as amended, introduces the requirement for a person carrying out the business of fish farming within a farm management area<sup>(1)</sup> to;

(a) be party to a farm management agreement, or prepare and maintain a farm management statement, in relation to the fish farm, and

(b) ensure that the fish farm is managed and operated in accordance with the agreement or statement.

To ensure compliance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, the following points must be addressed in the farm management agreement/statement

R25

- The statement or agreement must identify the date of review (farm management agreements or statements must be reviewed at least every two years).

<sup>(1)</sup> Farm management area means an area specified as such in the Code of Good Practice for Scottish Freshwater Aquaculture