Case No:	2023-0080	Date of visit:	10/05/2023
Time spent on site:	7 hrs	Main Inspector:	[redacted]
Site No:	FS0361	Site Name:	Sian Bay
Business No:	FB0125	Business Name:	Scottish Sea Farms Ltd

Case Types: 1 ECI 2 CNI 3 SLI 4 VMD 5 REP 6 DIA

Water Temp (°C):	9.2	Thermometer No:	T304	FHI 045 completed	N/A

Observations: Region: HI Water type: S CoGP MA: M-1

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

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

Additional Case Information:

Site inspected following mortality reports above the reporting threshold.
5 cages still holding stock on site, decision on whether to hold fish to scheduled harvest date (July 2023) or bring forward the fallow date was due to be made WK 19.
Site experienced a peak in mortalites following FW treatments by wellboat (Intercaledonia). The FW treatments were reported to be 12 hours (between 08/04/23 to 15/04/23). Following the increasing mortalities samples were taken and Aeromonas salmonicida was the primary pathogen identified - vet report stated "Aeromonas salmonicide is likely to have been present during freshwater bathing, which alongside handling stress and/or previous handling through the cycle has resulted in a severe infection challenge".
The majority of mortalities are acute infections, with these fish showing no or very few external signs of furunculosis. The fish with acute infections displayed various internal signs, mainly haemorrhaging on the swim bladder, enlarged spleens and clear ascites. The fish with chronic infections displayed external signs including furuncles
Vet from Pharmaq Analytiq was on site during site inspection to conduct a follow up visit to previous sampling trips. They inspected recently removed mortalities and examined these externally and internally. They also opened a number of lumpfish mortalities.
Cleaner fish on site are from Otterferry, unsure of future stocking plans for cleaner fish, however, if they are to be used they will be source from within Scotland.
Fish on site vaccinated with PD3 vaccine - Salmon pancreas disease, infectious pancreatic necrosis and aeromonas salmonicida. Fish vaccinated at Barcaldine.
Approximately 15 - 40 moribund or lethargic fish observed per cage. Three fish observed deeper in the water column with severe exophthalmia.

Case No: 2023-0080 Site No: FS0361

Date of Visit: 10/05/2023 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	5		No facilities inspected		10
Species	SAL	LUM						
Age group	2022 Q1	2022						
No Fish	90,614	24,763						
Mean Fish Wt	4.05kg	mixed						
Next Fallow Date (Site)	July 2023		Next Input Date (Site)			Jan 2024		
Recent (last 4 wks) disease problems?			Y	Any escapes (since last visit)?				N
If yes, detail:	Furunculosis							

Movement Records

1. Movement records available for inspection?	Y
2. Date of last inspection:	18/10/2022
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?	Incinerated - on site
If other detail:	Increased mortalities are being disposed of to Pelagia - Aberdeen.
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	WK 15 -1,772 (0.6%), WK 16 - 7,141 (2.5%), WK 17 - 55,403 (20.2%), WK 18 - 13,636 (8.8%)
5. Evidence of recent increased/atypical mortalities?	Y

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

Wk 17 site wide rather than specific cages - post treatment (FW) and furunculosis.

6. Any other peaks in mortality during period checked?	Y
If yes, detail:	2022 WK 45 - 12,648 (3.5%), 2022 WK 47 - 14,225 (4.1%), 2022 WK 48 - 11,348 (3.4%) - all attributed to CGD
7. Have increased (unexplained) mortalities been reported to vet or FHI?	Y
If yes, detail action:	Depopulated 5 cages, final decision on remaining cages to be made wk 19.
8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.	Y

Treatments and Medicines Records

1. Recent treatments (see comment)?	N
If yes, detail:	
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?	N
5. If yes, what treatment(s)?	
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).	Aeromonas salmonicida

Records checked between: 18/10/2022 to 10/05/23

Case no:	2023-0080	Site No:	FS0361	Date of visit/ Sampling:	10/05/2023	10/0							
Priority samples:	VI		BA		PA		MG		HI				
Time sampling starts/ends:	12:00:00	12:45:00	Inspector:		VMD No.	13							
Environmental conditions:	1	Dry	2	Sunny	3	Cloudy	4		5				
Summary samples	HIST	Y	BA	Y	MG	Y	VI		PA		Total Samples		

Add Fish/Pools - click

	Pool/Fish No	F1	F2	F3	F4	F5							
	Fish nos	1	2	3	4	5	6	7					
	Pool Group												
Stock Details	Species	SAL	SAL	SAL	SAL	SAL	SAL	SAL					
	Average weight	4kg	4kg	4kg	4kg	4kg	4kg	4kg					
	Sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
	Water Type	SW	SW	SW	SW	SW	SW	SW					
	Stock Origin	Barcaldine Smolt Unit	Barcaldine Smolt Unit	Barcaldine Smolt Unit	Barcaldine Smolt Unit	Barcaldine Smolt Unit	Barcaldine Smolt Unit	Barcaldine Smolt Unit					
	Facility No	6	6	6	6	6	6	4					

05/2023 Additional Sample Information:

5 Total Tests assigned 6

Case no: 2023-0080 Site No: FS0361 Method of killing: Percussive

Date of visit: 10/05/2023 Inspector(s): [redacted] Sheet Relevant: Y

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

Fish Number		1	2	3	4	5					
Time sampled after death (if > 45 minutes)											
External Signs											
Behaviour	Moribund	S									
	Lethargic		S	S	S	S					
	Hanging vertical		W								
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic										
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale										
	Zoned										
	Necrotic										
Lesions	Flank	S									
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers	0	0	0	0	0					
Internal Signs											
Ascites	Clear	W	W	W	W	W					
	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)	4	5	3	4	4					
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve										
	Lack of fat										
Spleen	Enlarged	M	M	W	W	W					
	Granulomas										
Gut	No food present										
	Yellow pseudo-faeces	S	W								
	External haem										
	Internal haem			W	W						
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging	M	W	W	W	W					
	Fluid filled										
Kidney	Swollen										
	Grey										
	Granular										
	Liquefied										
General	Parasites present										
	Anaemia										

Case no: 2023-0080

Date of visit: 10/05/2023

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

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

Additional comments:

Case Number:	2023-0080		Site No:	FS0361	Insp:	
Date of Visit	10/05/2023					

		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

					Score
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			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	0
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8	0

					Score
Management practices		None	Secure	Unsecure	
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2	0

			Score
On farm processing within the rules of the directive	No on farm processing	0	0
	Processing own fish (re-cycling risk)	1	0
	Processing fish from MS of equivalent status	2	0
	Processing fish from zone or compartment of equivalent status	4	0
	Processing fish from Category III farm	8	0
	Processing fish from Category V farm	10	0
Disposal of fish and fish by-products	Site's own waste only processed.	0	0
	Common processes with other farms	3	3
	Collection point for waste from other farms	5	0
Use of unpasteurised feeds	No feeding of unpasteurised feed	0	0
	Feeding unpasteurised feed	5	0

					Score
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

			Score
Disinfection of equipment between sites, use of footbaths etc	Yes	0	0
	No	1	0
CoGP/Regulator			
Practices in accordance with regulator or industry code of practice	Yes	0	0
	No	3	0
Platform access to cages	Yes	0	0
	No	2	0

Total	**20**
Rank	**MEDIUM**

Case No: 2023-0080 Site No: FS0361

Sea Lice Inspection (Seawater Sites Only)

1. Has the site experienced sea lice problems in the previous 4 years?	N
2. Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?	Y
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?	Y
4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?	Y
5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)	Y
6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)	Y
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)	N
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?	Y
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.	Y
9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)	N
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)	Y
11. Has any other action been taken (where applicable)?	Y
12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?	Y
13. Are treatments, where conducted, carried out in cooperation between participating farms?	Y
14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?	Y
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?	Y
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.	Y

Containment Inspection

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

Sealpro 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?	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

Case No: 2023-0080 Site No: FS0361

Date of Visit: 10/05/2023 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?	Y

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?	Y
22. Does the FMAg/S identify whether one or more year classes may be stocked onto sites covered by the agreement or statement?	Y
23. Does the FMAg/S identify whether broodstock or potential broodstock are to be kept on any site covered by the agreement or statement?	Y

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?	N/A

Management and operation

25. Is the fish farm being managed and operated in accordance with the agreement or statement?	Y
26. What is the version no/date of issue of the FMAg/S?	Feb-22

Site No: FS0361

Case No: 2023-0080

Nature of non-compliance:

Action taken (FHI):

Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology

Case No: 2023-0080 Date of visit: 10/05/2023

Site No: FS0361 Inspector: [redacted]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2nd Insp
BA isolate A: A.sal	5/5	31/05/2023		30/05/2023		29/12/2025		
GPAT	5/5	31/05/2023		30/05/2023		29/12/2025		
AERH	5/5	31/05/2023		30/05/2023		29/12/2025		
HPAT	5/5	31/05/2023		30/05/2023		29/12/2025		
KPAT	5/5	31/05/2023		30/05/2023		29/12/2025		
SPAT	2/5	31/05/2023		30/05/2023		29/12/2025		
MG AGD	0/5	31/05/2023		30/05/2023		29/12/2025		
MG IHN	0/5	31/05/2023		30/05/2023		29/12/2025		
MG IPN	3/5	31/05/2023		30/05/2023		29/12/2025		
MG ISA	0/5	31/05/2023		30/05/2023		29/12/2025		
MG Para Ther	4/5	31/05/2023		30/05/2023		29/12/2025		
MG PMCV	0/5	31/05/2023		30/05/2023		29/12/2025		
MG Sal Pox	0/5	31/05/2023		30/05/2023		29/12/2025		
MG SAV	1/5	31/05/2023		30/05/2023		29/12/2025		
MG VHS	0/5	31/05/2023		30/05/2023		29/12/2025		

Report Summary			
Case Type	Date	Insp	2nd Insp
REP, DIA	29/12/2025		
ECI, CNI, SLI, VMD	29/12/2025		

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0125	**DATE OF VISIT**	10/05/2023
SITE NO	FS0361	**SITE NAME**	Sian Bay
CASE NO	20230080	**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.

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 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.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

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

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

UKAS Accredited Inspection Body - Type C No. 0269
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Telephone – 0131 244 3498
Email – ms.fishhealth@gov.scot
Fish Health Inspectorate Website

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 and 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: 29/12/25

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Scottish Government website at Fish Health Inspectorate Service Charter - gov.scot (www.gov.scot)

UKAS Accredited Inspection Body - Type C No. 0269
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
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Fish Health Inspectorate Website

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO FB0125
SITE NO FS0361
CASE NO 20230080

DATE OF VISIT 10/05/2023
SITE NAME Sian Bay
INSPECTOR [redacted]

Section 1: Summary

The above site was inspected following reports of mortalities exceeding the reporting threshold. Five fish were removed for diagnostic sampling.

Histopathology examination revealed features consistent with *Aeromonas salmonicida* (furunculosis), confirmed by bacterial culture which identified *Aeromonas salmonicida* on plates taken from kidney material of 5 fish and lesion material of 1 fish. The level and purity of growth would suggest this bacterium would be implicated as a primary source of morbidity in this case.

Samples tested positive by qPCR for salmonid alphavirus and gill samples tested positive by qPCR for *Paranucleospora theridion*.

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

The above site was inspected following weekly mortality reports above the CoGP reporting threshold. The site had experienced losses of 7,141 (2.5%) for the week beginning 17/04/23, 55,403 (20.2%) for the week beginning 24/04/23 and 13,636 (8.8%) for the week beginning 01/05/23. At time of inspection, mortalities were attributed to *Aeromonas salmonicida.* It was reported that the majority of mortalities followed an acute infection, displaying no or very few signs of furunculosis

Five cages had been harvested, with five cages remaining stocked at the time of inspection. During the site inspection between 15 and 40 moribund or lethargic fish were observed per cage and five fish were removed from cage six for examination and diagnostic sampling. Fish one was moribund and had a lesion on the flank. Fish two was lethargic and hanging vertically in the water. The remaining fish, three to five were all lethargic.

Internally all fish exhibited clear ascites, enlarged spleens and haemorrhaging on the swim bladder. Fish three and four exhibited internal haemorrhaging on the gut and fish one and two exhibited yellow pseudo-faeces.

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Samples

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

Fish number	Facility number	Species	Stage	Origin
F1-F5	6	Atlantic salmon	2022 Q1; 4kg	Barcaldine Smolt Unit

Results

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

The following bacteria were isolated from fish one to five.

Aeromonas salmonicida (kidney F1 – F5, lesion F1)

From the tests conducted, we do not have evidence of resistance to oxytetracycline, sulphamethoxazole/trimethoprim or florfenicol.

From the tests conducted, we have evidence which may indicate resistance to amoxycillin.

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)

Fish Number	**Endogenous control Cp value**	**Cp Values**			**Reported Result (PCR)**
F1	16.08	36.23	36.46	35.27	Positive
F2	-	-	-	-	Negative
F3	16.91	36.79	36.88	36.64	Positive
F4	19.48	36.67	36.15	35.78	Positive
F5	-	-	-	-	Negative

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Salmonid alphavirus (SAV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	Negative
F2	-	-	-	-	Negative
F3	-	-	-	-	Negative
F4	19.48	25.88	25.86	25.83	Positive
F5	-	-	-	-	Negative

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious salmon anaemia virus (ISAV), piscine myocarditis virus (PMCV), salmon gill poxvirus (SGPV), 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).

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.54	30.92	30.96	31.12	Positive
F2	18.98	30.51	30.49	30.38	Positive
F3	19.75	31.33	30.98	31.15	Positive
F4	-	-	-	-	Negative
F5	19.37	34.53	35.16	34.58	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 five fish.

Histopathological examination revealed the following:

Gill: Lamellar hyperplasia branchitis, mild, multifocal, in F1-F4 with several dense aggregates of Gram-negative rod-shape bacteria (F1, F3, F4). F5 displayed filament hyperplasic branchitis with haemorrhage.

Skin & Muscle: Lesion: Dermatitis with associated Gram-negative rod-shape bacteria (F1, F4) and haemorrhagic myositis (F1).

Heart: F1 - F5 display several small dense aggregates of Gram-negative rod-shape bacteria and some fibre necrosis surrounding the aggregates. F1-F5 displayed epicarditis.

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Gut and pyloric caeca: F5 displayed enteritidis with Gram-negative bacteria, mild, multifocal (F5), very mild peritonitis (F1), some cell sloughing (potentially associated with post-mortem artefact) observed in F1.

Pancreas: Within the normal range.

Liver: Area of hepatocellular vacuolation (macrovisicules) (F3), hepatocellular vacuolation (macrovisicules), mild, diffuse (F5).

Kidney: Some foci of interstitial cell (haemopoietic) necrosis with few small aggregates of Gram-negative bacteria associated observed in F1-F5.

Spleen: Necrotising splenitis, mild, multifocal, with several dense aggregates of Gram-negative rod-shape bacteria (F3, F5). F5 also displayed some cuffing.

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

Signed: [redacted] Date: 29/12/25

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Scottish Government website at Fish Health Inspectorate Service Charter - gov.scot (www.gov.scot)

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