Case No:	2024-0372	Date of visit:	18/09/2024
Time spent on site:	10 hours	Main Inspector:	[redacted]
Site No:	FS1344	Site Name:	Invertote Salmon Farm
Business No:	FB0579	Business Name:	Organic Sea Harvest Ltd

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

Water Temp (°C):	13.5	Thermometer No:	T304	FHI 045 completed	N/A

Observations: Region: HI Water type: S CoGP MA

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:

Last lice count w/b 19/08/2024 - 0.01 AF. No counts 08/07/24 and 12/02/2024 - Veterinary advice - consequence of recent treatments. Generally lice levels low - highest count 0.05 AF per site in 2024.

No escapes but several escape events reported associated with seal predation.

S0s - mortality - loss of 20458 in last four weeks - pen 4 (4860) and pen 10 (5481) - CMS. Some FW treatments every 6 weeks aimed for. Some handling CMs increases in mortality after this

Total mortality for S0 159715 12 September last year. 98996 S1 lost since input (march 2024)

Developing FMS for area 50 in conjunction with other areas in MA 11b. No harvest strategy required for sea lice as few treatments
Odd moribund and significant amount of runty fish especially in S1 stock but most difficult to catch when approaching with the net. Three fish sampled for diagnostic purposes - one S0.5 and two S1

Inspection of the site undertaken to ensure that satisfactory measures are being implemented in relation to containment. Adequate actions undertaken to repair a hole in the net reported as an escape event - the hole was fixed by site staff and patched by divers. Installation of seal fencing to prevent the ingress of seals bweteen the cage and the top net. Seal fencing appears to be providing positive results.

Case No: 2024-0372 Site No: FS1344

Date of Visit: 18/09/2024 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	12	Facilities stocked	12	No facilities inspected	12			
Species	Atlantic	Atlantic						
Age group	2023 S0	2024 S1						
No Fish	421,321	604,471						
Mean Fish Wt	2.8 Kg	916g						
Next Fallow Date (Site)	June 2025	Next Input Date (Site)	S0 September 2025					
Recent (last 4 wks) disease problems?	Y	Any escapes (since last visit)?	N					
If yes, detail:	Yersinia ruckeri in cage 6, touch of AGD across site FW treat every 6 weeks							

Movement Records

1. Movement records available for inspection?	Y
2. Date of last inspection:	01/11/2020
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)?	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?	Ensiled - on site
If other detail:	
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	lost 6969 S1 (cage 6 and 2 up 3k each), 500 in other two S1 cages
5. Evidence of recent increased/atypical mortalities?	Y

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

CMS / handling, Yersinia

6. Any other peaks in mortality during period checked?	Y
If yes, detail:	Reported through mortality reporting - reports matching records
7. Have increased (unexplained) mortalities been reported to vet or FHI?	Y
If yes, detail action:	Pharmaq inspections and sampling contract.
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)?	Y
If yes, detail:	Optomese (Benzocaine - lice counts and gill swab), medicated feed S1 - antibiotic for yersinia, AMX for caligus
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)?	Optomese and medicated feed (florphenicol)
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).	y. ruckeri and V.anguillarum, Cretanium sp gill, PRV, PMCV, CMS.
Records checked between:	Last inspection and 18/09/2024

Case no:	2024-0372	Site No:	FS1344	Date of visit/ Sampling:	18/09/2024	18/(							
Priority samples:	VI		BA		PA		MG		HI				
Time sampling starts/ends:	17:30:00	19:00:00	Inspector:		VMD No.	4							
Environmental conditions:	1	Sunny	2	Calm	3	Dry	4		5				
Summary samples	HIST	Y	BA	Y	MG	Y	VI		PA		Total Samples		

Add Fish/Pools - click

	Pool/Fish No	F1	F2	F3									
	Fish nos	1	2	3	4								
	Pool Group												
Stock Details	Species	SAL	SAL	SAL	SAL								
	Average weight	2.8000	0.9160	0.9160	2.8000								
	Sex	N/A	N/A	N/A	N/A								
	Water Type	SW	SW	SW	SW								
	Stock Origin	Inverkerry Smolt Unit	Inverkerry Smolt Unit	Inverkerry Smolt Unit	Inverkerry Smolt Unit								
	Facility No	12	7	7	11								

09/2024 Additional Sample Information:

3 Total Tests assigned 4

Case no: 2024-0372 Site No: FS1344 Method of killing: Percussive

Date of visit: 18/09/2024 Inspector(s): [redacted] Sheet Relevant: Y

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

Fish Number		1	2	3							
Time sampled after death (if > 45 minutes)		2 hours	1 hour	1 hour							
External Signs											
Behaviour	Moribund	S		S							
	Lethargic	S	W	S							
	Hanging vertical	S		S							
	Spiralling	M									
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic		S	S							
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale	W									
	Zoned	W									
	Necrotic										
Lesions	Flank										
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers		>10	>10							
Internal Signs											
Ascites	Clear										
	Bloody		W								
Oedema	In tissues										
Heart	Pale/anaemic	W									
	Granulomas										
	Deformed										
Liver	Petechial haem		S	M							
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)	3	5	6							
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem	M									
	Tubules mauve										
	Lack of fat		M	M							
Spleen	Enlarged										
	Granulomas										
Gut	No food present		S	S							
	Yellow pseudo-faeces		S								
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging	S									
	Fluid filled										
Kidney	Swollen										
	Grey	W									
	Granular										
	Liquefied										
General	Parasites present										
	Anaemia	M									

Case no: 2024-0372

Date of visit: 18/09/2024

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:	2024-0372		Site No:	FS1344	Insp:	
Date of Visit	18/09/2024					

Live fish movements		**No of movements/supp./dest.** 0	1-5	6-10	>10	**Score**
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**	**Score**
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

Management practices		None	Secure	Unsecure	**Score**
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	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

Biosecurity	**Number of sites**	**1**	**2 or 3**	**≥ 4**	**Score**
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	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	0

Total	**21**
Rank	**MEDIUM**

Case No: 2024-0372 Site No: FS1344

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?	N
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)	Y
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?	N
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.	N/A
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)?	N/A
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?	N
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?	N
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.	Y

Some observed higher levels of lice on some runty fish - no AFs observed. Next treatment FW due Sunday / Monday coming.

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)	

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)

Case No: 2024-0372 Site No: FS1344

Date of Visit: 18/09/2024 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?	N
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?	N
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?	N
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?	N
23. Does the FMAg/S identify whether broodstock or potential broodstock are to be kept on any site covered by the agreement or statement?	N

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

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?	12 September 2023, review date July 2025.

Case No: 2024-0372 Site No: FS1344

Date of visit: 18/09/2024 Inspector(s): [redacted]

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
ENHANCED CONTAINMENT INSPECTION (SEAWATER)				
a. Enquiry relating to i) escape incidents and ii) contingency procedures				
1.1. Have escape incidents or events[1] been experienced on or in the vicinity of the site since the last MSS inspection?		Y		Multiple reported
If yes answer 1.2-1.8:				
1.2. Have appropriate reports been made to Scottish Government within 24 hours of discovery?	High	Y	AAAH Regs[4] 31D,E	2023 - reported farmed fish south Skye - not believed to be associated with OSH farms. Skye & Lochalsh rivers trust.
1.3. Have these been reported to the SSPO[2] and, where in existence, the local DSFB and fisheries trust?	Medium	Y	CoGP 4.4.37, 5.4.17	
1.4. Were methods (if any) used to recover escapees?		N/A		
If yes give detail				
1.5 Was the decision to attempt to recapture and the method employed agreed with the local DSFB and FT	Low	N/A	CoGP 4.4.38, 5.4.18	
1.6. Was permission sought from Marine Scotland prior to recapture?	Medium	N/A	CoGP 4.4.38, 5.4.18	
1.7 Were the gill nets deployed in accordance with the permission issued by Marine Scotland?	Low	N/A	CoGP 4.4.38, 5.4.18	
1.8. In light of the escape event, has appropriate action been taken to prevent and minimise the risk of further escapes?	High	Y		Investment in seal fence nets, new nets at Culnacnoc, work on older nets to strengthen stress points / target areas - Increase in seal population 4x through census.
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	Working on RA associated with Industry led by SS - working group, covering seals in pens if escape event. Contingency measures printed and on barge.
b(i). Inspection of records relating to equipment, facilities and the site				
General records			CoGP: 4.4.9, 4.4.14,	
2.1 With regard to each facility, net, screen and mooring at each site, a record should be maintained of:-			SSI 2,1	
		Facilities	Moorings	Nets
a) The name of the manufacturer	Low	Y	Y	Y
b) Any special adaptations	Low	Y	Y	Y
c) The name of the supplier	Low	Y	Y	Y
d) The date of purchase	Low	Y	Y	Y
e) Each inspection including				Topside report for grid. Inverlussa and follow up work conducted by them
i) the name of the person conducting the inspection	Low	Y	Y	Y

Point of compliance	Risk level	Satisfactory?	Requirement		Comments and advice given or action taken if necessary
ii) the date of each inspection	Medium	Y	Y	Y	11798 - cage 1 invertote
iii) the place of each inspection	Low	Y	Y	Y	
iv) the outcome of each inspection	High	Y	Y	Y	
f) the date and result of each repair, equipment test and antifouling treatment carried out	High	Y	Y	Y	
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	Y	SSI, 2,5		
2.6 In respect of sites at which fish are farmed in inland waters[3]			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	Y	SSI, 2,11 (a)		
b) Any action taken to rectify any such damage	High	Y	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		Gael Force installed and contracted boat and mooring staff
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		

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
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	Undertaken by Inverlussa - qualified and competent independent accreditation
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	18 mm
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	wave and climate modelling studies to help with equipment design
2.17 Are nets treated with a UV inhibitor?	Low	N	CoGP 4.4.21	UV resistance within materials nets constructed from
2.18 Are nets tested at a pre-determined frequency?	High	Y	CoGP 4.4.22	End of each cycle by Knox. Replacing nets after two cycles
2.19 Is the method of test procedure based upon the manufacturers advice?	High	Y	CoGP 4.4.22	
2.20 Are frequent net inspections conducted to look for damage?	High	Y	CoGP 4.4.23	Daily visual inspections. End of cycle manufacture. Whole visual ROV every 10 days. Also monthly by divers.
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	Daily
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	Damage fixed as soon as can. Few reports of damage. One hole reported was repaired.
b(ii). Inspection of records relating to training				
3.1 Are training programmes and plans relevant to the various onsite activities documented?	High	Y	CoGP 7.1.8	
3.2 Is there a satisfactory record of all training and qualifications for each person working at the site in relation to any boat operations? (This excludes well boat operations)	High	Y	SSI 2,6,a	
3.5 With respect to any transfer of or handling of fish is there a record of all training of each person working on site in relation to containment and prevention of escape of fish, and recovery of escaped fish?	High	Y	SSI 2,7,a	
b(iii). Inspection of records relating to procedures and risk assessments				
4.1 Are procedures which could increase the risk of fish escaping considered to be carefully planned and supervised to minimise risk?	High	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	

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
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?		Y		
4.5 Are there records of site specific risk assessments ascertaining the risk of predator attack?	Medium	Y	CoGP 4.4.26	
4.6 Are there risk assessments undertaken on a pre-determined frequency?	Low	Y	CoGP 4.4.26	
4.7 A record of any anti-predator measures undertaken at each site at which fish are farmed including:			SSI, 2,8,a	
The type and location of each net, fence and scarer deployed	Medium	Y		Seal pro nets - break test at 120kg on all cages. New since 2020. Coming to end of second cycle. Tested July last year still 98% AW or higher for BS 119% or BW 112%. Seal fence made from same material a dHDP - dynema type. Installed this cycle. Noticed decrease in seal attack since. Top nets /bird nets
- 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	No predator nets employed
c. Inspection of site and site equipment				
5.1 Are there any obvious containment issues on the site?	High	N		
5.2 Is the net mesh size considered to be capable of containing all fish sizes present on site?	High	Y	CoGP 4.4.18	

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
5.3 Do nets carry numbered ID tags?	Low	Y	SSI 2,2 ii	
Look at a percentage of nets on site - Does the net location meet the inventory?	Low	Y		11.798 - tag on net at cage 1
5.4 Are nets stored away from direct sunlight?	Low	Y	CoGP 4.4.21	Covered in bag and stored inside at Kishorn Port
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[5] 2010 P4, S21	
5.9 If yes, has this been done in accordance with the necessary requirements?	Low	Y	MS Marine licence	
5.10 If Yes to 5.8 is there a record of any navigation markers deployed?	Low	Y	SSI 2,5	
d. Inspection of site specific procedures				
6.1 Are pen nets examined for holes, tears or damage prior to and during the stocking, moving or crowding of fish?	High	Y	CoGP 4.4.31	with Rov
6.2 If helicopter transfer of fish is conducted are receiving pen(s) properly prepared:-			CoGP 4.4.32	
a) nets should be secure	High	N/A		
b) pens should be marked with buoys clearly visible from the air	High	N/A		
c) radio contact between farm staff and helicopter crew should be maintained or where this is not possible, pens receiving fish should be manned	High	N/A	CoGP 4.4.33	
Consideration should be given to all other site procedures being undertaken during the visit with respect to containment and the risk of fish farm escapes				

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

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

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

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

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

5 The Marine Scotland Act 2010

Case No: 2024-0372 Date of visit: 18/09/2024

Site No: FS1344 Inspector: [redacted]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2nd Insp
IPN PCR	2/3	07/10/2024		*26/09/24		07/02/2025		
PMCV PCR	1/3	07/10/2024		*26/09/24		07/02/2025		
AGD PCR	3/3	07/10/2024		*26/09/24		07/02/2025		
PARA THE PCR	3/3	07/10/2024		*26/09/24		07/02/2025		
SGPV PCR	2/3	07/10/2024		*26/09/24		07/02/2025		
SAV PCR	2/3	07/10/2024		*26/09/24		07/02/2025		
ISA PCR	0/3	07/10/2024		*26/09/24		07/02/2025		
VHS PCR	0/3	07/10/2024		*26/09/24		07/02/2025		
IHN PCR	0/3	07/10/2024		*26/09/24		07/02/2025		
BA_YRUK	2/3	07/10/2024		*07/10/24		07/02/2025		
BA_VSPE	2/3	07/10/2024		*07/10/24		07/02/2025		
AMGD	2/3	07/10/2024		*07/10/24		07/02/2025		
GPAT	3/3	07/10/2024		*07/10/24		07/02/2025		
HPAT	3/3	07/10/2024		*07/10/24		07/02/2025		
LPAT	2/3	07/10/2024		*07/10/24		07/02/2025		
SALH	2/3	07/10/2024		*07/10/24		07/02/2025		
PRV PCR	2/2	07/10/2024		*07/10/24		07/02/2025		
				*email				

Report Summary			
Case Type	Date	Insp	2nd Insp
ECI, SLI, VMD	06/10/2024		
DIAG	07/02/2025		
CNA	27/03/2025		
ESC	31/03/2025		

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0579	**DATE OF VISIT**	18/09/2024
SITE NO	FS1344	**SITE NAME**	Invertote Salmon Farm
CASE NO	20240372	**INSPECTOR**	[redacted]

Section 1: Summary

The above site was inspected as part of Scotland's routine aquatic animal health surveillance programme. During the inspection, fish were observed displaying clinical signs of disease. Three fish were removed for diagnostic sampling.

Histopathology examination revealed features of mild proliferative bronchitis with associated amoebic gill disease (AGD) which was confirmed by qPCR. Fish 1 displayed evidence of systemic bacterial infection. Coagulative hepatocellular necrosis was observed in fish 2. Myocarditis was also observed in all three fish. This condition could be associated with potential viral or bacterial infection. Some fish displayed features potentially related to the presence of salmonid alphavirus which was confirmed by qPCR.

Yersinia ruckeri was identified on plates taken from fish 1 fish 3. *Yersinia ruckeri* is a primary fish pathogen and the level and purity at which this isolate was observed in fish 1 would suggest it would be the primary source of morbidity in this fish.

Vibrio sp. was identified on plates taken from fish 2 fish 3. The level and purity of growth observed would suggest this bacterium may have been implicated in the health of fish 2.

Fish were also tested for various pathogens by qPCR. All fish sampled tested positive for *Paranucleospora theridion*. Two fish were positive for salmon gill poxvirus, piscine reovirus, and infectious pancreatic necrosis virus. One fish tested positive for piscine myocarditis virus.

Please contact me 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 surveillance inspection, a small number of moribund fish, and a significant number of 'runty' fish were observed across the site. *Yersinia ruckeri* and AGD had been identified as recent disease problems on site. Three lethargic fish were removed for diagnostic sampling. Both fish 1 and 2 appeared moribund and were hanging vertical within the water

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column. Spiralling behaviour was observed in fish 1. Fish 2 and 3 appeared anorexic and the gills of fish 1 were both pale and zoned.

Internal observations were noted. Within fish 1, the heart appeared pale, petechial haemorrhaging was observed over the pyloric caeca, haemorrhaging across the swim bladder and the kidney was grey in colour. The fish presented a general anaemic appearance. Fish 2 and 3 showed evidence of petechial haemorrhaging across the liver, a lack of fat associated with the pyloric caeca and the gut of both fish was absent of food. Yellow pseudo-faeces were present in the gut of fish 2 which also had bloody ascites within the body cavity.

Samples

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

Fish number	Facility number	Species	Stage	Origin
F1	12	Atlantic salmon	2023 S0	Inverkerry Smolt Unit
F2	7	Atlantic salmon	2024 S1	Inverkerry Smolt Unit
F3	7	Atlantic salmon	2024 S1	Inverkerry Smolt Unit

Results

The results for this case are:

Bacteriology: Kidney and gill material from all three fish was inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

Yersinia ruckeri from the kidney and gill of fish 1 and from the gill of fish 3

Vibrio sp. from the kidney and gill of fish 2 and the gill of fish 3

The level and purity of *Yersinia ruckeri* within fish 1 would suggest that this pathogen is the primary source of morbidity within this fish. The level and purity *Vibrio sp*. within fish 3 would suggest that this bacterium may have been implicated in the health of fish 2.

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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		-	-	-	Negative
F2	16.62	36.59	36.64	36.10	**POSITIVE**
F3	16.78	37.61	37.48	37.93	Positive

Piscine myocarditis virus (PMCV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	15.87	24.81	24.87	24.69	**POSITIVE**
F2		-	-	-	Negative
F3		-	-	-	Negative

Salmonid alphavirus (SAV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	15.87	25.51	25.16	25.59	**POSITIVE**
F2		-	-	-	Negative
F3	16.78	27.70	27.47	27.63	**POSITIVE**

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1		-	-	-	Negative
F2	22.59	28.28	28.22	28.21	**POSITIVE**
F3	22.07	26.95	26.90	26.88	**POSITIVE**

Piscine reovirus (PRV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F2	17.15	34.86	33.86	34.47	**POSITIVE**
F3	16.79	30.53	30.45	30.55	**POSITIVE**

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The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious salmon anaemia virus (ISAV), 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	22.28	33.84	33.46	33.64	**POSITIVE**
F2	22.59	26.25	26.22	26.39	**POSITIVE**
F3	22.07	26.58	26.66	26.84	**POSITIVE**

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	22.28	32.23	32.31	32.59	**POSITIVE**
F2	22.59	26.38	26.38	26.34	**POSITIVE**
F3	22.07	26.17	26.14	26.13	**POSITIVE**

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

Histopathological examination revealed the following:

Gill: Ranging minor to mild, multifocal, hyperplasia and fusion (F1-F3). Some lamellar epithelial necrosis observed in F1-F3. Presence of few amoeboid cells resembling *Neoparamoeba perurans* observed in F2 and F3. Lamellar telangiectasia with multifocal thrombosis (F1-F3). Free blood among gill filament (F1-F3).

Skin & Muscle: Skeletal red muscle myositis, marked, diffuse (F3) and skeletal white muscle myositis, mild multifocal, mainly observed at an area close to red muscle (F3).

Heart: Mild, multifocal, myocarditis (F1-F3) with few Gram-negative rod-shaped bacteria (F1). Epicarditis, mild (F1, F3).

Gut and pyloric caeca: Abdominal adipose tissue displaying small foci of haemorrhage (F1). Fibrous adhesions (likely associated with vaccine administration) observed (F1). Marked cell sloughing potentially associated with post-mortem artefact (F1).

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Pancreas: Absence of acinar tissue (F1 and F3).

Liver: Hepatocellular necrosis, mild, multifocal to coalescence with haemorrhaging (F2) and hepatocellular vacuolation (macrovesicles), mild, diffuse (F1), mild vasculitis with few Gram-negative rod-shaped bacteria.

Kidney: Foci of interstitial cell (haemopoietic) necrosis (F1, F3) few Gram-negative rod-shaped bacteria (F1). Vessels displaying infiltration of mononuclear cells (F3).

Spleen: Minor foci of cellular necrosis with few Gram-negative rod-shaped bacteria (F1). Slightly congested (F1).

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

Signed: [redacted] Date: 7 February 2025

Fish Health Inspector

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FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0579	**DATE OF VISIT**	18/09/2024
SITE NO	FS1344	**SITE NAME**	Invertote Salmon Farm
CASE NO	20240372	**INSPECTOR**	[redacted]

ENHANCED CONTAINMENT INSPECTION

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

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

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

b)ii) Inspection of records relating to training

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

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

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

c) Inspection of site and site equipment

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

d) Inspection of site specific procedures

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

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

Signed: [redacted] Date: 27 March 2025

Fish Health Inspector

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FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0579	**DATE OF VISIT**	18/09/2024
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CASE NO	20240372	**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.

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.

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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. The site is developing a farm management statement following the recent establishment of a Farm Management Area and advice is being given over the development of this document.

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

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

Signed: [redacted] Date: 6 October 2024

Fish Health Inspector

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FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0579	**DATE OF VISIT**	18/09/2024
SITE NO	FS1344	**SITE NAME**	Invertote Salmon Farm
CASE NO	20240372	**INSPECTOR**	[redacted]

Escape Investigation

The site was inspected following notification of circumstances which gave rise to a significant risk of escape of Atlantic salmon on 10 August 2024 (Escape incident number MSE100824SAL1)

An enhanced containment inspection was conducted and a report will be issued separately.

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

Signed: [redacted] Date: 28 March 2023

Fish Health Inspector

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